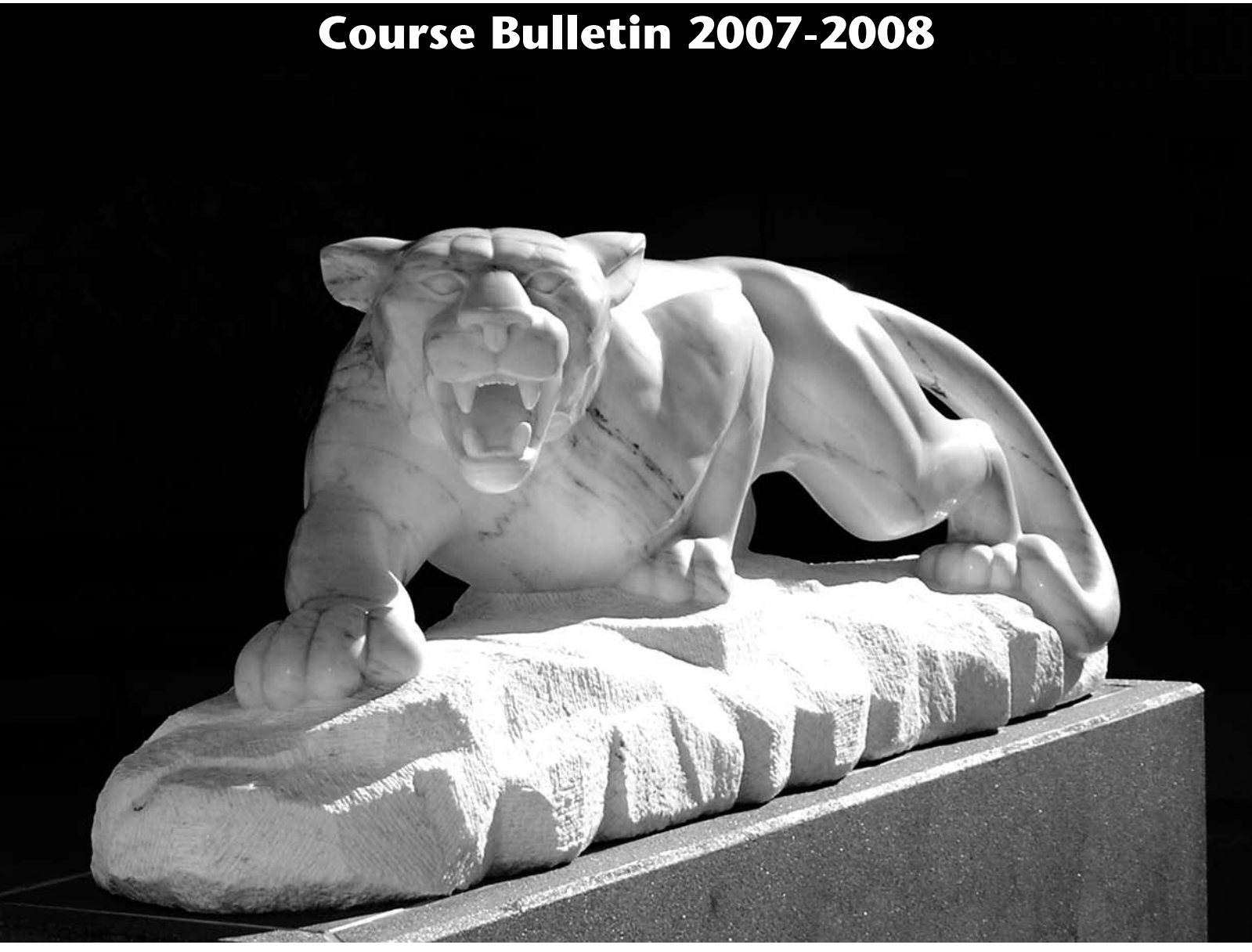
University of Colorado at Colorado Springs

Course Bulletin 2007-2008



www.uccs.edu

How to use your *UCCS Bulletin*

Please note: This *UCCS Course Bulletin* includes the pertinent information you need as a student to take best advantage of your educational career while you are here. Please read it thoroughly; as a UCCS student, you have the responsibility to understand the policies and meet the requirements stated herein.

The General Information section of the *Bulletin* explains important University policies regarding admission, registration, finances, curricular requirements, academic progress, records and student behavior that apply to all University students. The Graduate School section explains those expectations that apply to all graduate students. Students in every college should read these sections.

Undergraduate students need to meet both University/College general education course requirements and specific course requirements for their major.

The individual college sections explain the requirements and expectations of each college, as well as the majors, minors, and other programs of study offered through those colleges. The curricular requirements are spelled out in detail, to help students plan their programs and graduate within a reasonable time period.

The Course Description (blue pages section) describes every specific course that is on record and may be offered through each of the colleges and schools; however, not every course is offered every semester. The UCCS Schedule of Courses, published in advance of each semester, details courses (and schedules) offered; courses in the Schedule can be cross-referenced to the Bulletin for further description of the course and explanation of any curricular prerequisites.

Students will also regularly receive a computerized degree audit that reviews which curricular requirements they have met and which they still need to complete for their degree.

Students should also refer to the UCCS website **(www.uccs.edu)** to access current information in further detail.

Advisors are available to all students in the Student Success Center, on the second floor of Main Hall. Students should also confer with the Chair of the Department in which they are majoring for further guidance regarding their educational program.

Keep this Bulletin! The requirements in effect for **your** degree are those described in the *Bulletin* at the time of you formally enter a program.

The Bulletin

The 2007-2008 University of Colorado at Colorado Springs Course Bulletin contains a summary of campus facilities, programs, and services; descriptions of colleges, schools, and individual departments; and degree requirements, course descriptions, and faculty listings as of January, 2007. Although this Bulletin was prepared on the basis of the best information available at the time, all information (including the academic calendar, admission and graduation requirements, courses and descriptions, tuition and fees) is subject to change without notice or obligation.

Equal Opportunity/Affirmative Action

The University of Colorado does not discriminate on the basis of race, color, national origin, gender, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. The University takes action to increase ethnic, cultural, and gender diversity, to employ qualified disabled individuals, and to provide equal opportunity to all students and employees.

The *UCCS Course Bulletin 2007-2008* at the University of Colorado at Colorado Springs (UPS 551-370) is published five times a year: March, May, June, October, and November by UCCS, 1420 Austin Bluffs Parkway, P.O. Box 7150, Colorado Springs, Colorado 80933-7150. Periodicals postage paid at Colorado Springs, CO, Volume 28, No 3, June 2007. General series number (138). POSTMASTER: Send address changes to UCCS Bulletin, 108 Main Hall, 1420 Austin Bluffs Parkway, P.O. Box 7150, Colorado Springs, CO 80933-7150.

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From the Chancellor

Welcome to the University of Colorado at Colorado Springs! I am optimistic that you will find challenging and engaging opportunities here, opportunities that will open doors to a meaningful life of success, growth, and giving. Together we can accomplish many things!

As the southernmost campus of the University of Colorado system, UCCS offers undergraduate and graduate degrees through six colleges and schools: Business; Education; Engineering; Letters, Arts and Sciences; Public Affairs; and the Beth-El College of Nursing and Public Health. You will find rigorous, interesting and stimulating programs of study available within these colleges detailed in this *Bulletin*. I urge you to read it carefully, to follow your interests, to understand the policies and requirements of your chosen college and major, and to take full advantage of the opportunities and support available to you while you are here.

You are joining us at an exciting time of innovation, growth and change. UCCS offers excellent educational programs in an exceptional environment with top quality faculty who value teaching as much as research. We currently enroll over 8,500 undergraduate and graduate students, our acclaimed faculty of 343 deliver over 51 degree programs that enable students to reach their educational goals, and we are currently adding and renovating new state-of-the art-facilities to our 500 acre campus in northern Colorado Springs. Much is happening here!

UCCS has earned high regard. The 2007 *U.S. News and World Report* ranked UCCS as 7th among top public western universities; the College of Engineering and Applied Science was ranked 7th nationally among public institutions for its engineering programs; and in 2006, the American Society for Engineering Education ranked the College of Engineering and Applied Science 7th nationally for our percentage of women engineers. The American Association of State Colleges and Universities recently named the university one of two national leaders in community engagement efforts.

Innovative teaching, creative scholarship and committed public service remain our hallmark. UCCS is a youthful, vigorous and dynamic university; we welcome you to our community, to share in and contribute to the many exciting opportunities that lie ahead.

It is a privilege to have you join us.

Pam Shockley-Zalabak

Pamela Shockley-Zalabak
Chancellor

P.S. Please use your Bulletin*! We want your educational journey to be as purposeful, coherent and focused as possible. The* Bulletin *explains in detail the general University policies, requirements, and resources as well as policies and requirements within the colleges and their distinct programs. The* Bulletin *in effect at the time of your enrollment in your program is the one that will apply in the resolution of questions about your specific program. I encourage you to review and understand what these expectations are, as all enrolled students are responsible for the information outlined herein.*

General Information

The University System

The University of Colorado system is composed of three campuses – Boulder, Colorado Springs, and the Denver and Health Sciences Center campuses – altogether having a combined enrollment of more than 52,000 students. To meet the needs of its students, the university offers an extensive number of undergraduate, graduate, and professional degree programs, as well as opportunities to study abroad, engage in public service, and conduct research.

The University of Colorado is governed by an elected nine-member Board of Regents, which is charged by the state constitution with the general supervision of the university and the exclusive control and direction of all its funds and appropriations, unless otherwise provided by law. The board conducts its business at regular meetings open to the public and through committees. The university president is the chief administrative officer of the three-campus system and is responsible for providing leadership to the university. Each campus is administered by its own chancellor and executive staff.

The University of Colorado at Colorado Springs

University of Colorado at Colorado Springs
1420 Austin Bluffs Parkway P. O. Box 7150
Colorado Springs, CO 80933-7150
(719) 262-3000 or 1 (800) 990-UCCS (8227)
www.uccs.edu

Mission

The Colorado Springs campus of the University of Colorado shall be a comprehensive baccalaureate university with selective admission standards. The Colorado Springs campus shall offer liberal arts and sciences, business, engineering, health sciences, and teacher preparation undergraduate degree programs, and a selected number of masters and doctoral degree programs.

Vision Statement

UCCS will provide unsurpassed, student-centered teaching and learning, and outstanding research and creative work that serve our community, state, and nation, and result in our recognition as the premier comprehensive, regional research university in the United States.

Core Values

The UCCS community subscribes to these core values:

Excellence: We will attract, develop and retain outstanding faculty, staff, and students, and focus on those programs and services that we can offer at an exemplary level.

Student Success: We will help traditional and non-traditional students succeed in their academic endeavors by assuring a stimulating, supportive, and safe environment in a naturally beautiful setting. We will encourage students to recognize their responsibility to participate fully in their own educational success and to contribute to the quality of all aspects of campus life.

Community Interactions: We will make known our vision, values, and goals and provide a demonstrated return on investment to the citizens of Colorado. We will link the university more closely to the communities we serve. We will communicate the value of the university to the citizens and elected leaders of our state, alumni, and potential students everywhere.

Enriching Environments: We will aggressively seek the development of a multicultural campus environment in which each person contributes unique talents to make the university a better place. In turn, each person will be fully valued and supported. We will reaffirm the tradition of shared governance and encourage all members of our campus community to join together in creating a positive working environment where all enjoy respect, fair treatment, and a voice in campus decisions.

Quality Teaching: We will promote and reward teaching excellence. We will strive to maintain predominantly small classes taught by dedicated and accessible faculty.

Research and Creative Work: We will promote and reward research and creative work that advances knowledge, that makes a valuable contribution, that enhances our teaching and service missions, and that encourages collaboration between students, both graduate and undergraduate, and faculty.

Service: We will attract and reward members of the campus community who place a high value on service and who are committed to contributing their expertise to the university and the public good.

Staff Contributions: We will value the vital role that staff play in supporting and enhancing the mission of the university.

Innovation and Change: We believe that universities both preserve the past and help create the future. We will encourage innovation in teaching, research, and service and prepare our students to succeed in a rapidly changing global and technologically advancing environment.

Life Long Learning: We will commit to serving the educational needs of members of our community at many points along life's path – as K-12 students, as university students, as they enter the work force, as they retrain for new careers, and as they continue to learn and grow throughout their lives.

Diversity

The University of Colorado at Colorado Springs recognizes its responsibility to prepare students to live and prosper in a pluralistic global society. All members of the university community are encouraged and empowered to aggressively

develop a campus culture in which each individual is fully valued.

The university's goal is to provide opportunities for all to learn and interact. Central to this goal is the respect and acknowledgement of diverse cultural and ethnic heritages. This respect will be reflected in all areas of campus life, including the composition of all constituencies of the campus community. To achieve this end, the university will actively recruit and retain students, faculty, administrators and staff who reflect the population of Colorado and the nation. Such an inclusive university best prepares students to succeed in a world in which an understanding of human diversity is essential.

This commitment to diversity will be embraced throughout the university's programs, colleges and schools, and by our administration, faculty, staff and students.

UCCS CORE Educational Goals

The purpose of general education is to cultivate students' intellectual, personal and ethical development and thus equip them to be life-long learners, able to adapt to an ever-changing environment. UCCS has adopted the following campus goals for undergraduate general education:

Specifically, students will:

- Be able to read, write, listen and speak in a manner that demonstrates critical, analytical and creative thought.
- Achieve a depth of understanding in their majors and a breadth of experience in other fields.
- Understand and apply the tools and methodologies used to obtain knowledge.
- Be prepared to participate as responsible members of a pluralistic society – locally, nationally and globally.

The UCCS Campus

The University of Colorado at Colorado Springs is located on approximately 521 acres in northeast Colorado Springs, at the foot of Austin Bluffs, a rugged natural cliff formation. The campus provides a spectacular view of the Front Range of the Rocky Mountains, including Pikes Peak, a 14,100-foot mountain that inspired Katharine Lee Bates to write "America the Beautiful" from its pinnacle in 1893.

Established in 1965, UCCS was built on an original gift of 80 acres (for the price of $1) in 1964 from local businessman George T. Dwire. Currently, the campus is expanding with the recent and future additions of a Recreation Center, a new Science and Engineering Building, the Heller Center for the Humanities, Cancer Survivor's Park, Mountain Lion Stadium, and the renovation of Dwire Hall.

In the Fall 2006 semester, more than 7,500 students enrolled in state supported instruction and more than 1,100 students participated in extended studies. Sixty percent of students are female; 18% identify as ethnic minority students. Approximately 85% of UCCS students originate from Colorado; however, students from all 50 states and 55 countries are represented. More than 275 active military personnel and more than 35 U.S. Olympic athletes pursue higher learning at UCCS. About 80% of students are enrolled in undergraduate programs and 20% are pursuing graduate study, with the assistance of approximately 800 faculty and staff. The current funds budget for fiscal year 2007 is $107,484,687. Campus expenditures yield approximately $200 million to the local economy each year through construction, employee and student spending, travel and operating expenses.

Accreditation

Accredited by The Higher Learning Commission; Member of the North Central Association of Colleges and Schools.

UCCS Degree Programs

UCCS is home to the following colleges and schools: College of Business; College of Education; College of Engineering and Applied Sciences; Graduate School of Public Affairs; College of Letters, Arts and Sciences; Beth-El College of Nursing and Health Sciences; and the Graduate School.

UCCS offers Bachelor of Arts, Bachelor of Science, and Bachelor of Innovation degrees in approximately 44 majors.

UCCS offers the following Masters degrees: Master of Science, Master of Sciences, Master of Engineering, Master of Arts, Master of Science Nursing, Master of Business Administration, and Master of Public Administration; the Master of Criminal Justice (MCJ) classes are offered at UCCS and the degree is awarded through the University of Colorado, Denver and Health Sciences Center.

UCCS offers 4 PhDs: Education Leadership, Engineering, Nursing , and Geropsychology.

New Cross-Disciplinary Degree Programs! Beginning in Fall 2007, a new ***Bachelor of Innovation (BI)*** degree will be available at UCCS. Like a Bachelor of Science (BS) or a Bachelor of Arts (BA), the BI has a major field of study, but it also has a common core in innovation and entrepreneurship, including a unique long-term, multi-disciplinary team experience. The innovative BI degree program draws on courses across colleges. Within the BI program, students can major in Business Administration, Computer Science, Computer Science: Security, Electrical Engineering, or Game Design and Development. Information on the Bachelors of Innovation is detailed in the College of Business and the College of Engineering and Applied Science sections.

Teacher Education Program: Professional Licensure may be included as a part of a four-year degree program in the College of Letters, Arts and Sciences, or may be pursued after a Bachelor of Arts has been earned in a liberal arts program. Professional Licensure through the Alternative Licensure Program may be pursued after a Bachelor of Arts degree has been earned.

Degree Programs by College

B – Bachelor's Degree **L** – Licensure
D – Doctoral **M** – Master's Degree

Beth-El College of Nursing and Health Sciences			
Health Care Sciences	B	M	
Nursing	B	M	D
College of Business and Administration			
Business	B		
Business Administration		M	
College of Education			
Counseling and Human Services		M	
Curriculum and Instruction		M	
Education	L		
Educational Leadership			D
Special Education		M	
College of Engineering and Applied Science			
Computer Engineering	B		
Computer Science	B	M	
Electrical Engineering	B	M	
Engineering		M	D
Mechanical Engineering	B	M	
Software Engineering		M	

College of Letters, Arts and Sciences			
Anthropology	B		
Applied Geography		M	
Applied Mathematics		M	
Biology	B	M	
Chemistry	B	M	
Communication	B	M	
Distributed Studies	B		
Economics	B		
English	B		
Exercise Science		M	
Geography and Environmental Studies	B		
History	B	M	
Mathematics	B	M	
Philosophy	B		
Physics	B	M	
Political Science	B		
Psychology	B	M	D
Sociology	B	M	
Spanish	B		
Visual and Performing Arts	B		
Graduate School of Public Affairs			
Criminal Justice	B	M	
Public Administration		M	

Pre-professional Programs: programs in Pre-Dental Hygiene, Pre-Dentistry, Pre-Education, Pre-Law, Pre-Medicine, Pre-Nursing, Pre-Pharmacy, Pre-Physical Therapy, Pre-Physician Assistant, and Pre-Veterinary may be completed at UCCS. (Not a major, these are a group of courses meeting specified professional school requirements; by themselves, these do not meet degree requirements.)

Through the UCCS College of Engineering and Applied Science, students may complete two years of work toward the following degrees: Architectural Engineering, Chemical Engineering, Civil Engineering, and Engineering Physics.

Information on all these degree programs and other minors, certification, licensure, and pre-professional programs is detailed within each college section in this *Bulletin*.

Admissions

Admissions and Records
Main Hall, room 108
Admissions: (719) 262-3383
or 1 -800-990-UCCS (8227) ext 3383
Certifications: (719) 262-3387 Fax (719) 262-3116
Records and Registration Information: (719) 262-3361
Transcripts: (719) 262-3376
Tuition Classification: (719) 262-3381 or 262-3385
www.uccs.edu/admissions.html
E-mail: admrec@uccs.edu

The Admissions Office provides services in undergraduate admissions advising, foreign student admission, application processing, transfer credit evaluation, and residency tuition classification.

For admission requirements to the Graduate School, see the Graduate School section and individual college and school sections of this *Bulletin* or visit web.uccs.edu/gradschl.

The Records Office handles matters pertaining to the demographic and academic student record. It provides information on these processes: address changes, grades, grade changes, drops, adds, withdrawals, changes to pass/fail grading, credit changes, stops, releases, registrations, Privacy Act requests, requests for transcripts, course description requests, and concurrent registrations with other university campuses.

Admission Standards for Undergraduate Students

The University of Colorado seeks to identify undergraduate applicants having a high probability of successful completion of their academic program. Admission is based on evaluation of many criteria; among the most important are the following:

1. General level of academic performance before admission to the university, as indicated by the evaluation of work taken at other educational institutions

2. Evidence of scholarly ability and accomplishment, as indicated by scores on accepted tests of scholastic aptitude and achievement

3. Motivation and potential for academic growth and ability to work in an academic community, as indicated by trends in the student's record, by letters of recommendation from teachers and others qualified to comment on the student, by accomplishments outside academic work, and by other relevant evidence.

A student who is granted admission or readmission must reflect, in a moral and ethical sense, a personal background acceptable to the university. The University of Colorado reserves the right to deny admission to applicants whose total credentials reflect an inability to assume the obligations of performance and behavior deemed essential and relevant to any of its lawful missions, processes, and functions as an educational institution.

Admission to UCCS does not guarantee eligibility for future intra-university transfer.

Application

How to Apply

1. Obtain an application form from the Office of Admissions and Records in person, by phone, by mail, or by internet. The mailing address is at the front of this *Bulletin*. The telephone number is (719) 262-3383 or 1-800-990-UCCS (8227). Or apply on the web at www.uccs.edu.

2. Follow the instructions for completing the form and ensure that all required documents are delivered by the deadline dates published in the *Bulletin, the UCCS Schedule of Courses*, or on the web.

Credentials

To be considered for admission, applicants must submit complete and official credentials as required by the desired program of study. An "official credential" is one received directly from the issuing institution via a third party common carrier. Students may not disregard any part of their previous educational background. Failure to submit transcripts from all institutions previously attended will be cause for canceling the admission process or dismissing the student. All credentials presented for admission to UCCS become the property of the university and may not be returned to the applicant.

Notification

As soon as possible after the Office of Admissions and Records receives all required credentials, students will be notified of their admission status. If qualified, the student will receive notification of eligibility for admission. Admission eligibility to the University of Colorado does not constitute a guarantee of enrollment in any specific course.

Student Bill of Rights

The Colorado General Assembly implemented the Student Bill of Rights (C.R.S. 23-1-125) to assure that students enrolled in public institutions of higher education have the following rights:

a. A quality general education experience that develops competencies in reading, writing, mathematics, technology and critical thinking through an integrated arts and science experience.

b. Students should be able to complete their associate of arts and associate of science degree programs in no more than 60 credit hours or their baccalaureate programs in no more than 120 credit hours unless there are additional degree requirements recognized by the Commission;

c. A student can sign a two-year or four-year graduation agreement that formalizes a plan for that student to obtain a degree in two or four years, unless there are additional degree requirements recognized by the Commission;

d. Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;

e. Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education;

f. Students, upon completion of core general education courses, regardless of the delivery method, should have those courses satisfy the core course requirements of all Colorado public institutions of higher education;

g. Students have a right to know if courses from one or more public higher education institutions satisfy the students' degree requirements;

h. A student's credit for the completion of the core requirements and core courses shall not expire for ten years from the date of initial enrollment and shall be transferable.

Undergraduate Freshman Admission

1-800-990-UCCS (8227) ext. 3383 (719) 262-3383

Freshmen may apply to the Beth-El College of Nursing and Health Sciences; the College of Letters, Arts and Sciences; the College of Education; the College of Business and Administration; and the College of Engineering and Applied Science in the fall, spring, or summer terms. The programs at UCCS provide all the course work required for entrance into the CU Schools of Dentistry, Education, Graduate School of Public Affairs, Journalism, Law, Medicine, and Pharmacy, which require one or more years of college-level work before a student may be considered for admission. Students may complete teacher certification requirements on this campus.

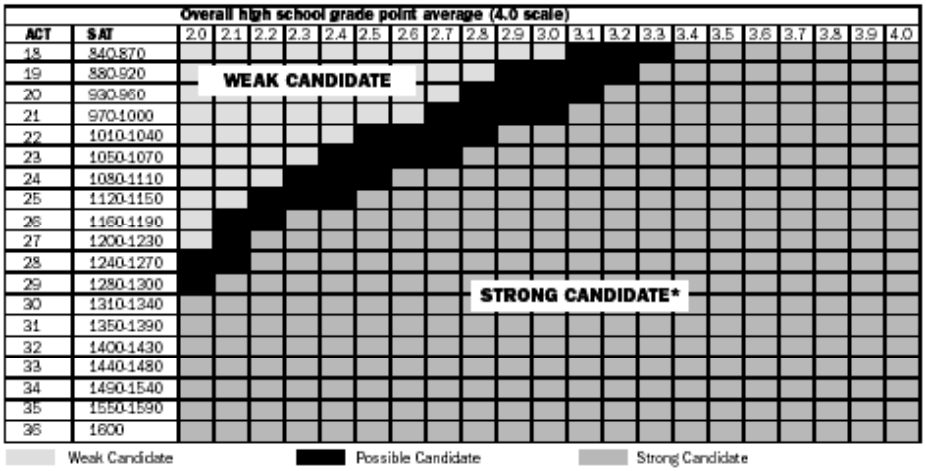
Freshman Admissions Criteria

1. Priority for admission to the College of Letters, Arts and Sciences is given to applicants who (a) rank in the upper 40% of their high school graduating

class at the end of the 6th, 7th, or final semester; (b) achieve a combined Scholastic Aptitude Test (SAT) score of 1,080 or above, or a composite American College Test (ACT) score of 24 or above; (c) have a GPA of 2.8 or above; and (d) complete all high school course units as required by the college to which they have applied. Increased requirements for admission to the colleges of Business and Administration, Engineering and Applied Science, and Nursing and Health Sciences are described in their respective sections of this bulletin. Applicants who do not meet all of these requirements should refer to number 2 below.

2. Applicants for freshman admission whose records vary in any way from the above priority admissions category will be considered on an individual basis by evaluation of their overall academic records including (a) the quality of their high school program of study; (b) the level of their college entrance test scores (SAT or ACT); and (c) any information unique to an individual situation. In addition, all applicants whose records reflect innovative grading systems, unusual curricula, no rank in class, or a high school equivalency through the General Education Development (GED) test, will be considered in this category. Students in this category admitted to the university may not exceed 20% of the total admitted pool.

Freshman Admissions Criteria



Codes for the University of Colorado at Colorado Springs ACT CODE: 0535 SAT CODE: 4874

** Students in the strong candidate category are only assured admission provided they meet the Regents' Minimum Academic Preparation Standards (MAPS). These standards include 4 years of English (2 of which must be in composition), 3 years of college preparatory mathematics, 3 years of natural science (2 of which must be laboratory sciences), 2 years social sciences, 2 years of the same foreign language, and at least one year of additional academic elective credit. Applicants who meet these high school requirements and the admission criteria in the chart will be admitted provided all other factors are consistent and enrollment limitations have not been reached. For the fall 2002 semester, the mid 50% of all new freshmen presented a high school class rank between the 50th and 85th percentile, a high school GPA from 2.9-3.7, ACT composite scores from 20-26, SAT combined scores from 950-1180.*

Assured Admission Criteria (Includes Minimum Academic Preparation Standards – MAPS)

College	Business & Administration	Engineering & Applied Science**	Letters, Arts & Sciences and Public Affairs	Beth-El College of Nursing & Health Sciences***
Class Rank ACT OR SAT School Code: ACT: 0535, SAT: 4874	Top 30% 24 Composite 22 Math; 24 English 1080 Verbal + Math	Top 30% 25 Composite 1120 Verbal + Math	Top 40% 24 Composite 1080 Verbal + Math	Top 30% 24 Composite 1080 Verbal + Math
Course Units (One unit is study in the same subject area for one year)				
English	4 Including at least 2 yrs. of composition	4 Including at least 2 yrs. of composition	4 Including at least 2 yrs. of composition	4 Including at least 2 yrs. of composition
Math	3 College Prep	4 At least 2 yrs. of Algebra: 1 yr. Geometry & 1 yr. Adv. Math	3 College Prep	3 College Prep
Natural Science	3 2 yrs. Lab Science	3 1 yr. Physics & 1 yr. Chemistry	3 2 yrs. Lab Science	3 1 yr. Chemistry 1 yr. Biology 1 yr. other Science
Social Science	2	2 Government, History, Economics, Psychology, Sociology, etc.	2 Government, History, Economics, Psychology, Sociology, etc.	2
Foreign Language	2 All units in single foreign language	2 All units in single foreign language	2 All units in single foreign language	2 All units in single foreign language
Academic Electives	1	1	1	1
Total	15	16	15	15

*** Students not meeting criteria for assured admission will be considered for admission based on a combination of class rank, test scores, and high school units. An Engineering Preparatory Program is available for students having deficiencies in their math/science backgrounds. Higher standards apply for EAS majors.*

**** Acceptance to Nursing is highly competitive. Preference is given to those who meet these criteria; however, not all qualified applicants can be accepted.*

Minimum Academic Preparation Standards (MAPS)

Freshmen and transfers entering the University of Colorado who have graduated from high school in 1988 or later will be required to meet Minimum Academic Preparation Standards (MAPS). The individual college's requirements are listed in the above chart. Students should be careful to note the different requirements in particular colleges and plan their academic preparation accordingly.

Options for Those Not Meeting MAPS Requirements as Entering Freshmen

What if my high school doesn't offer all the courses I need to meet the MAPS?

An admission decision involves many factors, including consideration of the extent to which this curriculum has

Undergraduate and Unclassified Student Admission Information

Applications and required credentials should be filed no later than July 1 for fall, December 1 for spring, and May 1 for summer.

Call 1-800-990-UCCS (8227) or (719) 262-3383

TYPE OF APPLICANT	CRITERIA FOR ADMISSION [1]	REQUIRED CREDENTIALS [2,3,4]	NOTES
Freshman (Students seeking a Bachelor's Degree who have never attended a collegiate institution)	See Freshman Admission Critera Chart page 5 and Assured Admission Criteria page 5.	• Complete application • $50 application fee (non-refundable) • Official high school transcript showing rank in class and date of graduation. If still enrolled in high school, 7th semester grades and 8th semester courses in progress. • Official ACT or SAT score report.	• For specific unit requirements refer to the college sections of this catalog. • Non-high school graduates must submit copies of GED scores and a state equivalency certificate in addition to a high school transcript showing work completed through highest grade.
Transfer (Students seeking a Bachelor's Degree who have attended a collegiate institution other than UCCS)	See Transfer Admission Requirments, page 8.	• Complete application • $50 application fee (non-refundable) • One official transcript from each college attended. • Freshman credentials may be required. • Non-high school graduates must submit copies of GED scores and state equivalency certificates.	• While credits from an institution may appear on the transcript of a second institution, transcripts must be submitted from all institutions where credit has been earned.
Unclassified (Non-degree) (Students who are not seeking a degree at this institution or who have not yet been admitted to degree status.)	• Must be 20 years of age by Sept. 15 for fall semester or summer term, or Feb. 15 for spring sem. • Must be a high school graduate or possess equivalency certificate. • Must have at least a 2.0 G.P.A. and be in good standing and eligible to return to all institutions previously attended.	• Complete application • $25 application fee (non-refundable) • Non-high school graduates must submit copies of GED scores and state equivalency certificates.	• Unclassified students without a degree must maintain a 2.0 G.P.A. to remain eligible to continue. • After completing 12 semester hours, degree seeking students must change to degree status. • Not eligible for most forms of financial aid.
Former CU Set-up (Returning unclassified student; returning degree student with fewer than 12 semester hours at another institution since CU)	• Must be in good standing **(*see Note A)**	• Former student application. Degree students must have official transcripts sent for any work attempted since last CU semester.	**Note A** - students under academic suspension in certain schools and colleges at CU may enroll during the summer term as a means of improving their G.P.A.
Former CU Re-entering (Degree student who has attempted 12 or more hours at another institution since attending CU)	• Same as for transfer student.	• Same as for transfer student. Application fee required.	Will be considered for previous major unless a different major is requested on the application. Must meet same criteria as transfer student
Change of Status: **Unclassified to Degree** (Current or former CU unclassified students who wish to enter a degree program)	• Same as for transfer student.	• Same as for transfer student. Application fee required.	
Change of Status: **Degree to Unclassified** (***See Note B** – Current or former CU degree students who have graduated and wish to take additional work)	• Must have completed degree. • Must be in good standing and eligible to return to all institutions attended.	• Unclassified student application. • NO application fee required.	**Note B** - only students who have completed and received a degree are eligible for change from degree status to unclassified.
INTER-CAMPUS TRANSFER (Students who have been enrolled on one CU campus and wish to take courses on another.)	• Must be in good standing	• Former student application. • Credentials as required by Campus Admissions Office.	• Transfers from UCCS to another CU campus should refer to appropriate catalog for any additional requirements.

1 Applicants not meeting these criteria are considered on an individual basis. Requirements for individual schools and colleges may vary or exceed the stated minimum.

2 Transcripts must be sent directly to the University of Colorado from each issuing institution. All documents submitted become the property of the University.

3 Any applicant who did not graduate from a high school must submit GED scores and a State Equivalency Certificate in addition to other required credentials.

4 Additional credentials may be required in individual cases.

been available. Students with deficiencies may be admitted to the university provided they meet the other admission standards (e.g. test scores, rank in high school class, and grade point average) and provided they make up the MAPS deficiencies prior to graduation from the university.

How will my deficiencies be dealt with while enrolled in the university?
Freshmen or transfer students who are admitted but who are deficient in MAPS will be required to make up the deficiency in accordance with the following policy.

1. Students who are deficient one unit in one or more areas may:

   a. Make up that deficiency by taking a course that is normally counted as degree credit and have that course count as part of their undergraduate total hours, assuming that all prerequisites are fulfilled. (For example, students could enroll in ID 105, successfully complete the course, eliminate their one-unit deficiency in mathematics, and earn three credits toward the 120 hours required for graduation.)

   b. Take a proficiency test (if one is available): A score of 280-286 on the foreign language proficiency test eliminates one unit of deficiency and permits students to enroll in the second semester of that language. A score of 336-341 (or above) on the test eliminates all units of MAPS deficiencies for foreign language. (Note: According to MAPS, students must be proficient in foreign language up through the second semester of college level.) A score of 19 on the ACT-English or 450 SAT-English eliminates a one-unit deficiency in English and entitles students to enroll in English 131. A score of 60 on the Reasoning Skills Exam also eliminates one unit of deficiency in mathematics.

   c. Utilize appropriate Advanced Placement and CLEP scores to eliminate the deficiency.

   d. Eliminate a single-unit deficiency in English by successfully completing English 099 (formerly English 121); and in mathematics by successfully completing MATH 090, Fundamentals of Algebra. These courses are offered through Extended Studies; while they do eliminate one unit of deficiency, they DO NOT count toward the total number of hours needed to graduate.

   e. Take appropriate courses at community colleges or other colleges to eliminate a unit of deficiency. Students should be aware of courses which will and will not transfer to the University of Colorado.

2. Students who are deficient two or more units may:

   a. Remove any single unit of deficiency by any of the methods in 1, above.

   b. Remove two units by various combinations of the methods in 1, above.

Advanced Placement Program
The university participates in the high school advanced placement program of the College Board. Official scores must be sent to the university directly from the College Board. Students receiving scores of 3, 4, or 5 on advanced placement examinations are generally granted college credit. Please see chart on page 9 for detailed information.

Applicants Without Approved High School Graduation
An applicant who has not graduated from high school must submit satisfactory scores on the General Educational Development Test (GED), a Certificate of Equivalency from any state department of education, a complete transcript of any high school work completed, and SAT or ACT entrance examination scores. Each applicant will be considered on an individual basis.

Students Not Granted Admission
An applicant who is not granted admission as an entering freshman may wish to consider a transfer to the university after one or two years of study elsewhere (see transfer requirements section). In the best interest of students pursuing educational goals for which they lack some academic preparation, the university Committee on Admissions often recommends that such applicants complete at least one full year of college level course work at a regionally accredited college. The personal attention and the appropriate courses there will prepare the student for an eventual successful experience at the University of Colorado.

High School Concurrent Enrollment
High school juniors and seniors with proven academic abilities may be admitted for one term at a time with special approval from the admissions committee. Credit for courses taken may subsequently be applied toward a university degree program. For more information and application instructions, contact the Office of Admissions and Records.

Undergraduate Transfer Student Admission

1-800-990-UCCS(8227)
(719) 262-3383

To be considered for admission, transfer students must be eligible to return to all collegiate institutions attended; they may not disregard any part of a previous collegiate record. Failure to advise the University of all institutions previously attended may be sufficient cause for rejection or dismissal.

Transcripts must be sent directly to the University of Colorado from each issuing institution. All documents submitted become the property of the University of Colorado.

General Academic Requirements
Transfer students who graduated from high school in 1988 or later are subject to the same minimum academic preparation standards as those required of all first year students. Students with less than 13 credit hours to transfer will be treated as Freshman Admission. Please see the "Minimum Academic Preparation Standards" section of this *Bulletin*.

Transfer students must meet a minimum GPA requirement, which varies according to the hours of collegiate work

Transfer Admission Requirements

If you have completed fewer than 12 semester hours of college work, you must meet freshman admission standards

	Business & Administration	Engineering & Applied Science**	Letters, Arts & Sciences Sciences***	Beth-El College of Nursing & Health
13-29 hours of college work completed	2.5 or above GPA with strong math & english	2.5 or above GPA with strong math & english	2.4 GPA or higher	3.3 GPA or higher
30 or more semester hours completed	2.5 or above GPA with strong math & english	2.5 or above GPA with strong math & science	2.0 GPA or higher	3.3 GPA or higher

completed, the type of institution in which the course work was taken, and the specific program to which the student applies. Please refer to the Transfer Admission Requirements chart for details.

(Note that for students transferring with 13-29 credit hours, if the student had high school criteria which meet our freshmen minimum requirements, then he or she is admissible with a 2.0 GPA)

Work in progress at the time of application cannot be considered in computing the cumulative average. As there are some schools and colleges at the university which require a higher grade-point average for transfer, students are urged to investigate specific requirements.

Community College Transfer Students

Students who successfully complete a state guaranteed general education course will receive transfer credits applied to graduation requirements in all majors unless a specific statewide Articulation Agreement exists. Currently Colorado has several approved statewide articulation agreements in business, engineering, elementary teacher education and nursing. Information about the state guaranteed transfer program and articulation agreements is available on the Colorado Commission on Higher Education website at www.state.co.us/cche.

UCCS will honor the transfer of an associate of arts (AA) degree and the associate of science (AS) degree earned at a Colorado public institution that offers AA or AS degrees. A student who earns an AA or AS with a grade of "C" or better in all courses will transfer with junior standing into any Letters, Arts and Sciences (LAS) degree program offered by UCCS. The credits earned in the associate degree program will apply at minimum to 35 credits. Because all LAS degrees are designed to be completed in 120 credit hours, a transfer student can complete a four-year degree in the same time as a native student, i.e. 120 hours.

Community College transfer students should also refer to the University Connection program, described on page 12, designed to assist AA or AS students transferring to UCCS.

UCCS will evaluate credit for Advanced Placement, International Baccalaureate, and alternate sources of credit following its standard policy.

Transfer Guides

Guides to assist students in their transfer from Colorado community colleges are available for student use at web.uccs.edu/transfer.

Transfer of College Level Credit

Transfer credit evaluation is made only after a student is admitted as a degree student. An admitted student will be notified when the evaluation has been completed. New transfer students will be advised about requirements remaining and completed when they attend one of the mandatory New Student Orientations.

College credit is transferable to UCCS according to the following stipulations:

1. Credit must have been earned at a college or university of recognized standing.
2. Only courses in which a grade of C or better has been attained will be accepted for transfer at this institution. Grades of pass, satisfactory, honors, etc., are also accepted for transfer. However, a limitation is placed on the number of pass hours accepted toward a degree by each school and college.
3. Credit is not transferable from vocational or technical curricula.
4. Credit will be granted only for course work appropriate to the curricula at UCCS.
5. Remedial or sub-college level courses are not transferable.
6. A maximum of 72 hours may be transferred from a two-year or community college.
7. A maximum of 102 semester hours of transfer credit may be counted toward graduation. Individual schools and colleges determine which courses and hours will apply toward the degree.
8. Individual schools and colleges reserve the right to accept or deny credit earned while the student is under scholastic suspension.
9. A maximum of 60 semester hours of extension credit (including no more than 30 semester hours of correspondence) may be counted toward an undergraduate degree.
10. Advanced placement credit is evaluated upon receipt of an official score report from the College Entrance Examination Board. Usually only scores of 3, 4, and 5 are considered for credit. Credit is not granted for an advanced placement score if the

Advanced Placement (AP)

All colleges accept AP credits but apply them differently depending on the student's degree program. Please contact an advisor in the Student Success Center for test score interpretation.

AP EXAM TITLE	AP SCORE	UCCS EQUIVALENT	SEM HRS
Art History	5,4,3	A H 280, 282	6
Studio Art	5,4,3	V A 104, 206	6
Biology	5,4	BIOL110, 115, 111, 116	6
Calculus AB	5	MATH135, 136	8
Calculus AB	4	MATH135	4
Calculus BC	5,4	MATH 135, 136	8
Calculus BC	3	MATH135	4
Chemistry	5,4	CHEM103, 106	10
Chemistry	3	CHEM103	5
Computer Science A	5	C S 115	3
Computer Science AB	5,4	C S 1 - -	4
Macroeconomics	5,4	ECON202	3
Microeconomics	5,4	ECON101	3
English Lang/Comp	5	ENGL131,141	6
English Lang/Comp	4	ENGL131	3
English Lit/Comp	5	ENGL 141, 150 (exempt from 131)	6
English Lit/Comp	4	ENGL131, 150	6
Environmental Science	5,4	GES 1- -	4
French Language	5,4	FR 211, 1 - - (exempt from 301)	6
French Language	3	FR 211	4
French Literature	5,4	FR 211, 1 - - (exempt from 311)	6
French Literature	3	FR 211	3
German Language	5,4	GER 211, 1 - - (exempt from 301)	6
German Language	3	GER 211	4
Comparative Govt/Pol	5,4	P SC 101	3
Amer Govt & Politics	5,4	P SC 110	3
European History	5,4	HIST101, 103	6
United States History	5,4	HIST151, 154	6
World History	5,4	HIST1--	6
Human Geography	5,4	GES 199	4
Latin Literature	5,4	LAT 1 - -	3
Latin Literature	3	LAT 1 - -	3
Latin: Virgil	5,4	HUM 1 - -	6
Latin: Virgil	3	HUM 1 - -	3
Music Theory	5,4	MUS 2 - -	6
Music Theory	3	MUS 2 - -	3
Physics B	5,4,3	PES 101, 102	8
Physics C-Elec/ Mag	5,4	PES 112, 215	5
Physics C- Mechanics	5,4	PES 111, 115	5
Psychology	5,4	PSY 100	4
Spanish Language	5,4	SPAN211, 1- - (exempt from 301)	6
Spanish Language	3	SPAN211	4
Spanish Literature	5,4	SPAN211, 1- - (exempt from 301)	6
Spanish Literature	3	SPAN211	3
Statistics	5,4	QUAN201	3

College Level Examination Program (CLEP)

All colleges accept CLEP credits but apply them differently depending on the student's degree program. Please contact an advisor in the Student Success Center for test score interpretation.

CLEP EXAM TITLE	CLEP SCORE	UCCS EQUIVALENT	SEM HRS
American History I	55	HIST151	3
American History II	55	HIST153	3
General Biology	54	BIOL 110, 115	6
Calculus	54	MATH 135, MATH 1- -	6
Chemistry	54	CHEM 103	5
Freshman College Composition with Essay	67% on multiple choice portion w/ a "pass" on essay portion	ENGL131	3
French	55	FR 101, 102	8
German	55	GER 101, 102	8
Macroeconomics	55	ECON 202 (Formerly 102)	3
Microeconomics	55	ECON 101	3
Psychology	54	PSY 100	3
Sociology	55	SOC 111	3
Spanish	56	SPAN101, 102	8
Western Civilization I	55	HIST101	3
Western Civilization II	55	HIST103	3

student has completed a college course which is equivalent to the course for which he/she would receive advanced placement credit.

11. College Level Examination Program (CLEP) credit for approved subject examinations may only be granted if a score of 67 percentile or above is received and if the courses are acceptable to the student's school or college. A maximum of 30 semester hours may be counted toward a degree. Credit is not granted for a CLEP score if the student has completed equivalent work.

Colorado residents may secure CLEP materials from the state regional office by contacting:

College Level Examination Program
c/o College Entrance Exam Board
4155 East Jewell Street, Suite 705
Denver, Colorado 80222

Students outside of Colorado may obtain CLEP information and application forms by writing:

College Level Examination Program
Box 1822
Princeton, New Jersey 08540

12. Credit for military schooling is evaluated upon receipt of forms DD 295 and DD 214. Evaluation of credit is in accordance with the American Council on Education's credit recommendation and is generally considered as elective credit.

13. Admission to the University of Colorado does not guarantee eligibility for future transfer into other programs, colleges, or schools within the university.

All course work is evaluated on the semester hour basis, i.e., 1 quarter hour equals 2/3 semester hour.

Transfer Credit Appeal Procedure

State guaranteed courses under the State Guarantee General Education (GT pathways) policy will transfer to any four-year institution in Colorado to satisfy general education requirements. Other non-guarantee courses are evaluated individually and within 30 days of date of admission. The procedure for appealing a decision involving the acceptance of course work from a Colorado community college for credit toward a degree is as follows:

1. Students must file an appeal within 15 days of receiving their transcript evaluation by writing the office responsible for transfer evaluations at UCCS. The student should complete and return a petition form to the Student Success Center, Main Hall,

International Baccalaureate (IB) Credit

Any student admitted to UCCS after June 30, 2003, who has graduated from high school having successfully completed an International Baccalaureate (IB) Diploma Program, shall be granted at least 24 semester hours of college credit. No tuition shall be charged for these credits. These credits shall be granted, however, only if the student receives a score of 4 or better on an examination administered as part of the IB diploma program. Students who complete four Higher Level (HL) exams will receive 6-8 hours of credit for each exam. Students who complete three HL exams and three Standard Level (SL) exams will receive 6-8 hours of credit for each individual HL exam and a total of 6 hours of elective credit for all three of the SL exams in aggregate, as long as at least one of the SL exams has a score of 4 or better.

Students who do not complete the entire IB Diploma Program will receive credit for up to four Higher Level (HL) exams completed with scores of 4 or better. No credit will be awarded for Standard Level (SL) exams.Credit is not granted for an International Baccalaureate score if the student completes an equivalent college course or Advanced Placement (AP) course.

All colleges accept IB credits but apply them differently depending on the student's degree program. Please contact an advisor in the Student Success Center for test score interpretation.

IB EXAM TITLE	IB SCORE	UCCS EQUIVALENT	SEM HRS
Anthropology (Social)	4-7	ANTH 240 & ANTH 2--	6
Biology	4-7	BIOL 110/111, 115/116	6
Business & Organization	4-7	BUAD 1--	6
Chemistry	4-7	CHEM 103 & CHEM 1--	6
Computer Science	4-7	C S 115 & C S 1--	6
Design Technology	4-7	----1--	6
Economics	4-7	ECON 1--	6
English A-1	4	----1--	6
	5	ENGL 131 & ENGL 150	6
	6-7	ENGL 141 & ENGL 150	6
Geography	4-7	GES 198 & GES 199	6
History w/ Regional Opt-Africa	4-7	HIST 104 & HIST 1--	6
History w/ Regional Opt-Americas	4-7	HIST 104 & HIST 153	6
History w/ Regional Opt-East and SE Asia & Oceania	4-7	HIST 104 & HIST 111	6
History w/ Regional Opti-Europe	4-7	HIST 104 & HIST 103	6
History w/Regional Opt-S Asia and the Middle East	4-7	HIST 104 & HIST 121	6
Islamic History	4-7	HIST 1--	6
Languages-Group A-1	4	XXXX 4--	
Languages-Group A-2	4-7	XXXX 102 & XXXX 211	8
Languages-Group B	4-7	XXXX 101 & XXXX 102	8
Mathematics (Calculus)	4-7	MATH 135 & MATH 1--	6
Music	4-7	MUS 100 & MUS 1--	6
Philosophy	4-7	PHIL 1--	6
Physics	4-7	PES 101/115, 102/215	6
Psychology	4	PSY 2--	6
	5-7	PSY 100 & PSY 2--	6
Theatre Arts	4-7	THTR 100 & THTR 202	6
Visual Arts	4-7	A H 100 & V A 101	6

**Note on Standard-Level languages: scores of 4 or better meet the UCCS admissions requirement of 2 units of MAPS-Foreign Language*

2nd floor. The form will be forwarded to the appropriate authority within the college. The decisions made in the transcript evaluation will be binding if the student fails to file an appeal within this time frame.

2. UCCS will respond within 30 days in writing to the student appeal.

3. If the dispute cannot be resolved between the student and UCCS personnel within 30 days, the student may appeal in writing to the Colorado Commission on Higher Education. The student has 15 days from receipt of the written UCCS notification to file an appeal.

Information concerning the appeal process is available at the Student Success Center, Main Hall, 2nd floor.

Student Bill of Rights

Transfer students should be cognizant of the Student Bill of Rights implemented by the Colorado General Assembly regarding their higher education. See page 4.

International Student Admission

The university is authorized under federal law to enroll non-immigrant foreign students. International applicants are required to contact the Director of Admissions for International Students in the Office of Admissions and Records before submitting an application. The application fee is $100 and is nonrefundable.

All foreign applicants from non-English speaking countries are required to demonstrate proficiency in English by submitting scores on the test of English as a foreign language (TOEFL). International students must follow special procedures and observe special deadlines. English as a second language (ESL) instruction is not available at UCCS.

Admission of Unclassified Students

1-800-990-UCCS (8227) ext. 3383
(719) 262-3383

The unclassified student designation has been established to meet the needs of those students who wish to take university courses but who do not presently intend to work toward a degree at the University of Colorado. Permission to register for specific courses is contingent upon the availability of space. Unclassified students may have difficulty obtaining course space due to class enrollment limits and because degree students may have a higher priority in certain departments.

Unclassified students enrolled during the academic year (fall, spring and summer terms) must be 20 years of age or older by September 15 for the fall and summer terms and by February 15 for the spring term, must have a 2.0 GPA in all college work attempted, and must be in good standing at all collegiate institutions attended.

An unclassified student who is not a high school graduate must submit GED scores and a high school equivalency certificate issued by a state department of education at the time of application.

Unclassified students may take courses on a pass/fail basis; however, such credit will be counted as part of the total pass/fail credit allowed by the various schools and colleges should the student change to degree status.

Continuation as an unclassified student (Major Code: NOLD, NOUD, NOHS, NOPS or NODW) is contingent upon maintaining an overall grade point average of 2.0 upon completion of 12 or more semester hours.

Unclassified students may not register concurrently on more than one campus of the university.

The Graduate School of Business and Administration does not allow students to register for graduate level business classes until they are officially admitted to the MBA program.

Teacher Certification Renewal Courses

Certified teachers with baccalaureates who seek only a renewal of the certificate currently held and who do not require institutional endorsement or recommendation may qualify for the university-wide unclassified student classification as outlined above.

Persons with baccalaureates who seek initial teacher certification must apply for and be admitted to the Teacher Education Program separately and meet the requirements of the College of Education. For information on the deadlines for admission to the program, unclassified students should consult the College of Education.

Applying Unclassified Student Credits toward Degree

Unclassified students may apply for admission to an undergraduate degree program by submitting an undergraduate admissions application, complete academic credentials, and the application fee. Accepted degree applicants may transfer a maximum of 12 semester hours taken as an unclassified student at this university to an undergraduate degree program with the approval of the appropriate dean's office.

Unclassified students desiring to pursue a graduate degree at the university are encouraged to submit the complete graduate application and supporting credentials as soon as possible. Students may be allowed to transfer up to 9 semester hours of credit taken as an unclassified student at this university to apply toward a master's degree, provided the transfer is recommended by the department concerned and approved by the dean of the Graduate School.

Students are advised to contact the Office of the Dean of the specific school in which they wish to enroll as a graduate student for further details on the transfer of unclassified student credentials. See also Transfer of Unclassified Student Credit Hours in this *Bulletin*.

For continuation as an unclassified student see "eligibility to return" section of this *Bulletin*.

Graduate Student Admission

Admission to any of the graduate programs in all of the UCCS colleges is administered through the Graduate School. For complete information on admission, see the Graduate School section of this *Bulletin*. Students may also

contact the Graduate School at the following address:

Graduate School
UCCS
Main Hall, room 304
(719) 262-3417
Fax: (719) 262-3045
web.uccs.edu/gradschl

Registration and Student Success Advising

Registration

(719) 262-3361

See the Academic Calendar on the inside front cover of this *Bulletin* for dates of registration. Times and details of registration, course offerings, and instructions on how to register over the internet via the Student Online Center are published in the *UCCS Schedule of Courses* each academic term. Changes to the published schedule are posted on the web.

Immunization Requirement

The Colorado Department of Health and Environment requires any student who: 1) is enrolled for one or more classes at a college or university, 2) is physically present at the institution, including auditing classes but excluding correspondence/distance learning classes, and 3) is born January 1, 1957 or later, to be immunized against Rubeola measles, Rubella, measles and mumps (MMR), or provide documented proof of immunity to all three. Individuals born before January 1, 1957 are presumed immune and are exempt from the immunization requirement. *See the Student Health Center under the Student Services Section for further information.*

Student Success Center

Main Hall, second floor
(719) 262-3260
Fax: (719) 262-3645
web.uccs.edu/studentsuccess

The Student Success Center is a "one stop" location on campus for meeting students' needs. Services include new student orientation, academic advising for all undergraduate students, career services, degree audit, and transfer evaluations. Students can find information about academic program options and requirements, how to select or change majors, degree progress reports, and a variety of other services designed to help students achieve their desired degrees.

Orientation for New Students

(719) 262-3260

Orientation programs are held preceding each term to acquaint new students with UCCS academic programs, out-of-class activities, and campus services. Academic advising, registration for classes, and an introduction to campus life constitute the main orientation activities. New students are required to attend an orientation session before being permitted to register for classes. For more information, go to: http://web.uccs.edu/orientation.

Academic Advising

Academic advising is available to all undergraduate students on an ongoing basis through the Student Success Center. Advisors are available to review degree requirements, course options, various academic programs, and a wide variety of other academic advising questions. Students can walk-in to the Center on the second floor of Main Hall or call 262-3260 for an appointment.

Career Center

Main Hall 201
(719) 262-3340

Career advising and resources are available throughout a student's educational path at the Student Success Career Center. Students undecided about a major can get help discovering truly exciting possibilities for study. Those considering a career change can find help exploring career areas and the jobs that will bring satisfaction. Students ready to find a job can receive assistance in creating a powerful resume and cover letter, and the Career Center also can assist with polishing interviewing skills.

The Career Center hosts many events and recruiters each year, including two Career Fairs.

For more information, go to http://web. uccs.edu/career-center. Students seeking an internship or employment can register with our online job board: www. ecampusrecruiter.com/uccs.

Degree Progress Reports

(719) 262-3260

Degree progress reports are available to inform students of their academic progress, requirements met, and requirements remaining for both their departmental major and their college; students should review these reports regularly and refer to them when registering for courses every semester. Students should be familiar with their degree progress when seeking academic advising. Students can access their degree progress reports by going to the Student Online Center from the campus website.

Testing Services for Math Placement

Main Hall, second floor
(719) 262-3260

The MPT – Math Placement Test, the Algebra Diagnostic Test, and the Calculus Readiness Test are administered by appointment, and at each freshman orientation.

Contact the Testing Office for scheduling and information or go to: http://www.uccs.edu/studentsuccess/testing.

University Connection Transfer Program

(719) 262-3260

UCCS has entered into agreements to assist students in two-year academic programs who complete their AA or AS degrees and plan to transfer to UCCS. The program provides transfer advising and close coordination with the academic colleges at UCCS.

University Connection scholarships are also available.

University Connection offers these transfer services to the following community colleges: Pikes Peak

Community College, Arapahoe Community College, Red Rocks Community College, Otero Junior College, Lamar Community College, Pueblo Community College, and Trinidad State Junior College. Students attending other two year institutions not listed can contact the program staff to make special arrangements for assistance with transfer to UCCS.

Expenses

College Opportunity Fund

In May 2004, an act of the Colorado state legislature established a new way for the State of Colorado to provide state tax-dollar support for higher education at the undergraduate level. The state is no longer appropriating monies to institutions for undergraduate educating, but instead is providing direct funding to undergraduate students through the College Opportunity Fund (COF).

This program, also known as "vouchers" or "stipends," allows resident undergraduate students to request that COF vouchers be applied to their university bills.

Current information with specific details regarding COF vouchers can be found on the UCCS question and answer website at www.uccs.edu/cof.htm. Details of the COF program are determined by the Colorado Commission on Higher Education (CCHE) and the Colorado Assist Program. Updated details are also available at www.cu/edu/ums/cof/faq.html and www.cofweb.cslp.org/cofapp. .

Tuition rates

(719) 262-3391

The Board of Regents reserves the right to change tuition and fees at any time.

Tuition

Tuition rates for Fall 2007 were not finalized by the time of publication of this *Bulletin*. When available, tuition rates for Fall 2007 will be published on our website. Go to www.uccs.edu and click on "Approved Tuition Rates."

Expenses for students attending the University of Colorado at Colorado Springs vary depending on housing (on or off campus), program of study, state residency (tuition classification), personal needs, and individual interests.

Payment of Tuition and Fees

Students must pay their tuition in full by the due date or sign up for a deferred payment plan. The payment requirements and payment due date are contained in the *Schedule of Courses*. Students receiving financial aid or a guaranteed student loan should contact the Financial Aid Office to determine if they are eligible for a payment waiver. Students covered by a third-party contract should contact the Third Party Billing Office. Students receiving veteran's assistance will be expected to pay the specified payment by the due date.

Due dates for payment balances are contained in the *Schedule of Courses*. Bills will be mailed prior to the first payment due date if the student is registered prior to that date. Remaining bills will be mailed after the first day of classes. Payments must be received at the Bursar's Office by the due date. Mail postmarked on the due date will not be honored. Bills not paid by the due date will be assessed a prorated late fine up to $50 and will accrue a 1 percent per month service charge on the unpaid balance (12% A.P.R.).

Students receiving financial aid will have tuition and fees deducted from their awards. Any balance remaining may be deposited to student's bank account after completion and submittal of authorization form to Loan Disbursement, Main Hall Room 210.

Personal Checks

A student's personal check can be accepted for any University obligation, unless the student is deemed to be a poor credit risk. A $20 service charge plus bank collection charges will be assessed for all returned checks. If the returned check was for a payment deadline, a reinstatement fee of $20 plus $10 per month will be assessed until cleared. If the check was for a tuition bill, a prorated late payment fine up to $50 plus interest will be assessed if applicable.

Drops or Withdrawals

A course drop or withdrawal is effective on the date that the completed form is returned to and stamped received by the Records Office. Any adjustment in tuition is made as of the receipted date by the Records Office.

Refunds and Rebates

Refunds and/or rebates will not be processed until approximately two weeks after the end of the drop/add period. The amount of refund/rebate is determined by the time of withdrawal in accordance with the policy contained in the *Schedule of Courses*.

Payment Policy

It is the student's responsibility to ensure payment is completed by the established due date. Students who enroll after the last day of late registration must pay a $50 late penalty fee plus a regular down payment and meet the established final payment due date.

Census Date Determination

The census date is the final controlling date for assessment of tuition and receiving a refund for a change in registration (dropped course), as well as requesting the pass/fail option or changing back to a letter grade, and a number of other academic, financial, and registration functions. Census date is the 12th class day of a fall or spring semester or the 6th class day of the summer term. The exact day and date is printed in the *Schedule of Courses* each semester.

Classification of In-state and Out-of-state Students

(719) 262-3381 or (719) 262-3385

1-800-990-UCCS (8227)

A student is initially classified as an in-state or out-of-state registrant for tuition purposes at the time an application and all supporting credentials have been received in the Office of Admissions and Records. The classification is based upon information furnished by the student and from other

relevant sources. After the student's status is determined, it remains unchanged in the absence of satisfactory evidence to the contrary. The student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, has the responsibility of informing the Tuition Classification Officer, Office of Admissions and Records, in writing within 15 days after such a change occurs.

If adult students, or emancipated minors, establish domicile outside Colorado, they are to send written notification within 15 days to the Tuition Classification Officer.

Petitioning for Residency Classification Change

Instructions as to the procedure to follow, the necessary petition forms, and detailed information regarding the statute are available from the tuition classification officer in the Office of Admission and Records.

Classification Notes

1. Petitions will not be acted upon until an application for admission to the university and complete supporting credentials have been received.
2. Changes in classification are made effective at the time of the student's next registration.
3. A student who willfully gives wrong information to evade payment of the out-of-state tuition is subject to legal and disciplinary action.
4. Petitions and all required documents must be submitted no later than the end of the first week of classes (see Academic Calendar) for the term a change in status is sought. Late or incomplete petitions will not be considered until the next semester.

U.S. and Canadian Military Waivers/Olympic Waivers

Special rules for residency apply to active duty members of the U.S. and Canadian Armed Forces permanently stationed in Colorado and their dependents and Olympic athletes in training. Strict deadlines of certification for each term that one enrolls are enforced for these individuals. Please contact the Tuition Classification Officer in Admissions and Records for details.

Auditors

All persons attending regularly scheduled classes must be registered and must have paid the proper tuition and fees. The tuition for those auditing a course on this campus is the same as for those registered for credit. Auditors register for courses for No Credit (NC).

Graduate Candidate for Degree

Students enrolled as "Candidate for Degree" only to take a comprehensive examination for a master's degree will pay graduate, resident tuition for 1 credit hour, plus appropriate fees.

Student Health Insurance

Main Hall, room 322
(719) 262-3258

UCCS offers a group health insurance program to students enrolled in nine (9) or more credit hours as an undergraduate or six (6) or more credit hours as a degree seeking graduate student. Brochures and enrollment cards are available in the Office of the Dean of Students. Open enrollment ends on the census date of fall semester.

Student Fees

All students enrolled for courses are assessed mandatory student fees; the amounts and applications are detailed in the following accounts.

General Fees

Learning Technology Fee

All students pay a $5 per credit hour learning technology fee each semester. This fee provides for the purchase of new computer equipment and software that are accessible to all students, the maintenance and upgrade of telecommunication equipment used in all current and future learning centers, and the development of a broad set of informational communication offerings accessible to all students.

Matriculation Fee

This nonrefundable charge is assessed to all students new to the University of Colorado system. It is a one-time charge of $25 and covers the normal cost of transcripts and establishing your university record. The fee is assessed during registration at the time of initial enrollment and is nonrefundable, even though the student may withdraw.

Parking Fees

(719) 262-3528
www.uccs.edu/pusafety.

It is the policy of the Colorado Commission on Higher Education that parking for vehicles owned by students, faculty and staff must be funded on a self supporting basis from special charges made of those owning automobiles and parking them on campus. In accordance with this policy, the UCCS Parking and Transportation Services Operation is established as a self-supporting auxiliary enterprise, RECEIVING NO STATE APPROPRIATIONS from tax revenues. This means that the construction, improvement and maintenance of all parking facilities at UCCS are financed solely through permit sales, parking fines and visitor parking revenue. Annual revenue must be sufficient to satisfy operating expenses and to repay revenue bonds sold to construct parking facilities.

Residential students parking a car on campus must purchase a Resident Permit. The Resident Permit allows students to park in parking lots 9, N, and level 5 of the parking garage. Commuter students have the option of purchasing a parking permit to park in HUB parking lots or Lot N. A HUB permit allows parking in Lots 1, 3-7, A-D, and N. The Hub permit is also valid on levels 1, 2, and 4 of the parking garage. Permits are also available for Lot N access and evening parking only. Commuter students not wishing to purchase a parking permit may park at the Four Diamonds parking lot located at 5025 North Nevada. Bus service to the

main campus is provided free of charge to students who possess a valid I.D. card.

Cars violating parking regulations are subject to ticketing and/or towing. Parking is on a first come, first served basis. Faculty, staff and students should direct all parking or traffic inquiries to Parking Services, in the Department of Public Safety, Public Safety Building, room 104, or call 262-3528.

Safety and Transportation Fee

The Safety and Transportation fee is charged per student, per semester regardless of a student's credit hour course load. The fee is $61.50 for the fall and spring semester, $30.75 for the summer term. Some of the things the Student Safety and Transportation fee pays for are as follows:

1. The campus shuttle and the Four Diamonds bus service
2. Increased hours and service from the campus police
3. Emergency phones on campus
4. Lighting along roadways and in parking lots

Student Health Center Fee

The Health Center is available to all full-time and part-time students who have paid the following fees, per semester: Fall semester, $25; Spring semester, $25; Summer session: $12.50. This is a mandatory fee for all full-time students.

Student Identification Fee

The fee for a student photo I.D. is $15 and is a one time fee.

Student Information System (SIS) Fees

This is a nonrefundable $5.50 fee charged to all students, payable each semester of registration.

The Student Information System (SIS) enables the university to provide better service to its students through the maintenance of student records, course scheduling, data management, transcripts, financial aid, student accounts and registration using the student on-line center.

Student Events/Performance Fee

The Student Events/Performance fee of $4 per semester for students enrolled in more than six credit hours and $2.50 per semester for students enrolled in six or fewer credit hours provides free access for all UCCS students to all Theatreworks performances and events in the Bon Vivant Theater in University Hall.

Student Life Fees

$138 Plus $15.35 Per Credit Hour

Every student enrolled for courses will be assessed mandatory student life fees for each semester enrolled. These fees finance the student facilities, programs, and services that are not supported by the university's general fund budget.

The seven Student Life Fees are as follows:

1. **Athletics Fee** ($4.85 per credit hour); this supports six women's and six men's intercollegiate sports programs.
2. **Campus Recreation Center Bond Fee** ($80 base); this repays bonded indebtedness on the building as well as support for the intramural, fitness, and open play/use activities.
3. **Family Development Center Bond Fee** ($10 base); this repays bonded indebtedness on building as well as support for childcare operations.
4. **Family Development Center Operating Fee** ($3 base); this supports programs and services.
5. **Student Activities Fee** ($12 base); this supports student organizations, the student newspaper, student government operations and other student activities.
6. **Student Recreation Fee** ($1 per credit hour); this supports recreation programs and activities and campus fitness center.
7. **University Center Bond Fee** ($33 base plus $9.50 per credit hour); this repays bonded indebtedness on the building and supports entertainment, cultural and educational programs, and the Center's operation.

Instructional Fees

Refunds for course or instructional fees and deposits for students who withdraw from school are made according to the refund schedules found in the *Schedule of Courses* for each semester or term of the academic year. A full refund of course or instructional fees and deposits for courses dropped on or before the census date is made to students who remain enrolled for at least one course.

Colleges and Schools may change the fee schedule at anytime without prior notice.

The following course and instructional fees and deposits are representative of, but not inclusive of, all fees.

Biology

All students enrolling in biology courses with laboratory components (or equivalents) will be assessed a materials fee for specimens, slides, glassware, etc.: Biology 100 level laboratory courses-$30; Biology 200 and above/laboratory courses - $50.

Business

All students taking Information Systems or Quantitative Methods courses will be charged a $15 per credit hour fee. Students taking any other course in the College of Business will be charged a $5 per credit hour fee. The maximum fee charged to a single student in a single semester for these fees is $120.

In addition, students enrolled in on-line courses are assessed a $52 fee per class and students enrolled in the Professional Golf Management program will be charged a fee of $500 per semester in addition to certain course fees.

Chemistry

There is a total charge of $40 for each laboratory course. Independent study courses are considered to be lab courses.

Communication
A $30 laboratory fee will be assessed for each course in TV production and/ or filmmaking. Communication 350 (American Cinema) carries a fee of $20. Communication 417 carries a $30 fee.

Education
Students enrolled in certain College of Education courses will be assessed fees ranging from $10 to $100 per course.

Engineering and Applied Sciences
All students taking courses in the College of Engineering and Applied Sciences will be charged a $15 per credit hour fee. The maximum fee charged to a single student in a single semester for these fees is $180. This fee applies to all courses in the college except graduate thesis courses. These fees are nonrefundable and will be used by the departments for inventory renewal. Students are responsible and liable for damage to equipment caused by neglect, improper use, or failure to follow operating instructions.

English
All students enrolled in English Rhetoric and Writing and certain other courses will be assessed a $10 fee per course.

Geology and Geography
Students enrolled in certain Geology or Geography courses will be assessed materials fees.

Graduate School of Public Affairs
Graduate students enrolled in on-line courses are assessed a $100 fee per class.

Languages and Culture
Students enrolled in lab courses, and certain other language instruction courses, will be assessed a $10 fee per course. In addition, $25 will be charged for courses with travel.

Letters, Arts and Sciences
Students enrolled in on-line courses are assessed a $52 fee per class. Students taking courses with field trips may be assessed a $20 trip fee.

Nursing
Beth-El College of Nursing students taking nursing courses will be assessed fees ranging from $25 to $150 per course.

Physics and Energy Sciences
Students enrolled in lab courses will be assessed various fees.

Psychology
Graduate students in Psychology will be charged clinical experience fees.

Visual and Performing Arts Fees
All students enrolling in any art history (AH), film (FILM), music (MUS), theatre (THTR), or visual arts (VA) course will be charged a program fee of $40 per semester enrolled, regardless of how many courses a student is registered for.

In addition, individual courses within the department will have specific fees. Please see the course schedule for these specific fees.

Credit by Examination Fee
Special examinations, given for the purpose of obtaining credit for a course solely through the passing of an examination without otherwise registering for and taking the course, are available to degree students in the university. The fee for each examination is the lower division, resident rate for 3 semester hours, regardless of the number of hours of credit that are awarded as a result of the exam. Credit is Pass/Fail ONLY.

Arrangements for special examinations are made through the Office of Admissions and Records. The fees for the examinations are payable in advance and are nonrefundable.

In cases where the examination is administered for other institutions and the results reported to that institution, the same nonrefundable fee will be assessed in advance. The individual student is responsible for payment.

Financial Aid/Student Employment

Cragmor Hall, Room 201 (top floor)
(719) 262-3460
1-800-990-8227
Fax (719) 262-3650
www.uccs.edu/finaidse/
FAFSA code: 004509

The financial aid program is designed to assist students who would be unable to attend the university without aid. The university receives funding from the state of Colorado, the federal government, and private donors to meet the needs of students who can document their financial eligibility. The campus also uses its own resources to meet students' needs.

Financial Aid

There are two basic types of financial aid available to help students meet their educational costs: need-based aid and non need-based aid.

Need-based Aid
Need-based aid requires sufficient documentation of financial need. See the directions in the section below entitled "How to Apply for Financial Aid?"

Need-based aid consists of grants, loans, and work-study awards.

Grants
Grants are funds that do not have to be repaid. Examples include the federal government's Federal Pell Grant and the Federal Supplemental Educational Opportunity Grant. Grants funded by the General Assembly of the State of Colorado include the Colorado Student Grant, the Colorado Leveraging Educational Assistance Program (federal funds are matched by the state), the Supplemental Leveraging Educational Assistance Program (federal funds are matched

by the state), the Governor's Opportunity Scholarship Program, and the Colorado Graduate Grant.

Loans
Loans are funds that have to be repaid at a future date. Examples include the Federal Perkins Loan and the Federal Stafford Loan (subsidized).

Work-study
Work-study awards offer part-time, subsidized employment (approximately 10-20 hours per week) with both on-campus and selected off-campus employers. Both Federal Work-Study and Colorado Work-Study awards are available. To be eligible for work-study employment, students must apply for financial aid and receive a work-study award. Students must also be enrolled at least half-time and comply with the financial aid policy on Reasonable Academic Progress to maintain eligibility for work-study.

Note: State of Colorado funds are available only to students who qualify for resident tuition (not based upon military status or Olympic status). Both resident and non-resident students may be eligible for federal funds. See the Student Employment homepage at www.uccs.edu/stuemp/ for more information about work-study and all student employment options.

Non Need-based Aid
Information and applications are available on the web at www.uccs.edu/finaidse/

Loans
These funds have to be repaid at a future date.

An example is the Federal Stafford Loan (unsubsidized). Interest accrues immediately and can be paid quarterly or can be added on to the principal. Repayment begins six months after the student is no longer enrolled half time.

For application information see the section below entitled "How to Apply for Financial Aid?". While eligibility for these loans is not based on need, an applicant must first establish that he or she is not eligible for need-based aid; therefore, the financial aid application procedure described in the section entitled "How to Apply for Financial Aid?" must be followed.

Colorado No-Need Work-Study
These funds are not based on financial need and offer part-time, subsidized employment (approximately 10-20 hours per week), on campus or at selected off-campus employers. Applications for no-need work study awards are available on line and are due by the end of the first week of fall classes. This program is available during the fall and spring semesters only; *awards are made only once, early in the fall semester.*

Undergraduate degree students who are eligible for resident tuition (not military or Olympic status), take at least six credit hours and who comply with the financial aid policy on Reasonable Academic Progress may apply for Colorado No-Need Work-Study. Students are selected for this award by a computerized random selection program.

Parent Loans
These are low interest loans that parents of dependent students may obtain to help pay the costs of attendance. The parent must qualify for credit (not have adverse credit history). The parent may apply for the full cost of attendance (as set by the Office of Financial Aid/Student Employment) for the year, minus financial aid awarded. Eligibility must be established each year. At this time, filing the Free Application for Federal Student Aid (FAFSA) is not a requirement. To establish eligibility and apply for the Parent Loan to Undergraduate Students, go to www.studentloanonline.com.

How to Apply for Financial Aid?

Follow these instructions to apply for financial aid, including Federal Stafford Loans (subsidized and unsubsidized):

1. Complete the Free Application for Federal Student Aid (FAFSA) on the web at www.fafsa.ed.gov or obtain the paper FAFSA from a high school or any college financial aid office. The process can be completed after January 1 each year. **We recommend that applicants file the FAFSA no later than March 1 each year and that it is filed on the web.** The correct information must be on the UCCS Student Information System (SIS) by April 1 to meet our financial aid awarding priority date. Students must also be admitted to a degree program by that date. Meeting this priority date does not guarantee a student will receive financial aid, but he or she will be considered for all types of assistance, including need-based grants.

2. The FAFSA analyzes family income, assets, family size, and other factors, and allows the Financial Aid Office to estimate student contribution and/or the amount your family could reasonably be expected to contribute to the student's education. The philosophy of the student assistance programs is that the student and family have the first responsibility to pay for the educational costs. The financial aid programs are available to promote access for students/families with the least ability to pay.

3. After the processor receives the information, the results will be sent electronically to UCCS (assuming the correct FAFSA code of 004509 was listed on the web application or the paper form). Students will receive a Student Aid Report (SAR). Students should carefully review, and if corrections are needed, contact the Financial Aid Office and we will make them electronically. If no corrections are needed, keep the SAR. Students are not required to submit the electronic or paper SAR to the Financial Aid Office.

4. If students wish to apply for a Federal Stafford Loan (subsidized or unsubsidized), follow all of the steps listed above and, in addition:

a. Federal Stafford Loan applicants should obtain a loan application from the Financial Aid Office or on the web at www.uccs.edu/finaidse/formfinaid.sthml, complete it, and send it or fax it.

b. If this is the student's first federal student loan at UCCS, the student should complete pre-loan counseling on the web at www.uccs.edu/finaidse/ then click on the "Pre-Loan & Exit Counseling Online" icon. Confirmation will be sent to the Financial Aid Office electronically.

c. Select a lender from our recommended lender list; if it is the first time the student has borrowed a Federal Stafford Loan at UCCS, certification will be done electronically and College Assist (formerly College Access) Network will contact the student to complete the Master Promissory Note (MPN). This note is valid for 10 years if the student remains with the same lender. The timely return of the MPN to the CAN is imperative. Funds will then be applied to your student bill electronically.

d. If the student selects a lender that is not on our list of recommended lenders, and is a first time borrower, the student must obtain the Master Promissory Note (MPN) and School Certification Form (that you get from the lender) and submit it with the lender and guarantor's name and address to the Financial Aid Office to complete. This must be done each time you apply for a loan. Loan eligibility is certified, and funds are sent, by mail. This is a much longer process.

All correspondence will be sent to your permanent address (not your mailing address). Be sure to keep it updated in the Records Office. You may also make address changes on-line once you have your student PIN.

Student Employment

Cragmor Hall, room 201 (top floor)
(719) 262-3460
fax (719) 262-3650
www.uccs.edu/studemp

The Financial Aid/Student Employment Office offers a self-referral employment service to currently enrolled students, and to students who have been accepted for the following term. Students need not document financial need to apply for these jobs; both work-study students and non-work-study (hourly) students are eligible to use the employment service. There is no charge for any of these services.

On-campus employment is available to full-time or part-time degree status students or unclassified students who are at least half-time. Additionally, during the summer, degree-seeking students may work on campus without being enrolled if they were enrolled as at least a half-time student during the previous spring semester and will return in the fall semester. Jobs are generally part-time and are listed throughout the year depending upon employer needs. The majority of openings, however, are at the beginning of each semester.

Off-campus employment, both part-time and full-time, is available throughout the year depending upon employer needs. Openings range from highly skilled technicians and computer assistants to clerical work, food service and general labor. Temporary and on-call positions in such areas as day care, tutoring, house cleaning and furniture moving are also listed. Many residential nationwide camps list openings for the summer.

Current job openings, both on and off campus, work-study and non work-study, are listed on SEAN's PLACE, a computerized student employment assistance network for students. This service is strictly self-referral, and to apply for any job the student must contact the employer directly. Students may access SEAN's PLACE on the web at www.uccs. edu/stuemp.

Scholarships

All of the scholarships available to students are listed on the web at http://finaide.uccs.edu/scholstart.htm. The deadline for most of the institutional scholarships is March 1st in the Financial Aid office. Postmarks will not be honored. Many of the scholarships require that students have completed the FAFSA (see above). Outside scholarship search databases (all free) are also listed on the scholarship web page.

Temporary Assistance

The university has available a short-term loan program for students in need of temporary financial assistance (e.g., books). These loans are temporary in nature and have a maximum repayment period of one semester. The fee to borrow is $5 per $100 borrowed. Students may borrow only one loan per semester with a maximum of $500. Interested students should see a financial aid counselor in the Office of Financial Aid/Student Employment.

Student Loan Deferment

(Includes Summer Term)
All special or unclassified students seeking an enrollment deferment for student loans will be considered undergraduates for verification purposes. In order to receive a deferment as a half-time student, the student must be enrolled for six credit hours. In order to receive a deferment as a full-time student, the student must be enrolled for 12 or more credit hours. Deferment forms are available on the web at www.nelnet.net/ or through your student loan lender. The Office of Admissions and Records certifies the student's enrollment status.

The Office of Financial Aid recommends that students wanting a deferment as a graduate student obtain degree status in their school or college.

University Academic Policies

Academic Records

(719) 262-3376

How Academic Work Is Recorded On Transcripts.
Courses are grouped by the term or semester in which they were taken.

When a college or school is unique to a particular campus of the university (the College of Letters, Arts and Sciences on the UCCS campus) and the student has completed the degree requirements, the degree and field of study will be designated on the transcript as follows:

Example: Degree – BA Conferred (date) at Colorado Springs Sociology

For students graduating from colleges and schools represented on two or more campuses, there may be no campus designation.

Example: Degree – BS Conferred (date) Business

Students completing a double major will be listed as follows:

Example: Degree – B.A Conferred (date) at Colorado Springs Psychology and Sociology

College of Letters, Arts and Sciences students graduating in Distributed Studies will show all the disciplines used to meet the unique degree requirements:

Example: Degree BA Conferred (date) at Colorado Springs Distributed Studies–Fine Arts, History, Communication, and English

Academic minors (completed at time a degree is awarded) are recorded on the transcript.

General and departmental honors are recorded on the transcript.

How to Order Transcripts
University of Colorado transcripts of student academic records can be ordered via the Student Online Center (www.uccs.edu) or by written request from the Admissions and Records Office.

Written requests must include the following:

- Student's full name (include maiden or other name if applicable)
- Student number
- Birthdate
- The last term student was in attendance
- Whether the current semester grades are to be included when a transcript is ordered near the end of a term
- Agency, college, or individuals to whom transcripts are to be sent with complete mailing addresses
- Student's signature (This is the student's authorization to release the records to the designee.)

There is no additional charge for transcripts beyond the matriculation fee paid by all new students. Special fees are charged for special handling (rush, fax, etc.). Transcripts are prepared only at the student's request. A student having financial obligations to the university that are due and unpaid will not be granted a transcript. Copies of transcripts from other institutions cannot be furnished.

Auditing Courses, "No-Credit" Courses

Non-registered students: All persons who wish to attend regularly scheduled classes and who are not registered students must obtain auditor's status. Auditors, whether in-state or out-of-state, pay in-state tuition for 3 semester hours at the lower division undergraduate rate for fall, spring, or summer term and receive class instruction and library privileges only. An auditor's card must be presented to the instructor when requesting permission to attend a class. Cards may be obtained from the Bursar's Office in Main Hall after classes begin. To qualify as an auditor, an individual must be 21 years of age or older. Persons are not eligible to audit courses if they are under suspension from the university. Auditors may attend as many courses as they wish (except those courses with laboratories or where equipment is used), provided they have permission from the instructor. Auditors register for courses for No Credit (NC).

Registered students: If a regular degree student wishes to participate in a class without receiving credit, the student must register for the course for No Credit. Tuition for courses taken for No Credit is the same as for courses taken for credit. Auditors should note that the Office of Admissions and Records does not keep any record of courses audited; therefore, credit for these courses cannot be established. In order to register for no credit, the student should complete a Credit Change Form indicating the course for which no credit is desired. Deadlines and rules for changing are the same as for Drop/Add. See also Grading System and Drop/Add.

Commencement Policy

The *Bulletin* that governs a student's graduation requirements is the one in effect at the time of the student's most recent admission into the college of the student's degree program.

Participation in academic ceremonies that recognize or honor students for the completion of an academic program or specific academic accomplishment is based on the understanding that all requirements have been completed. Every effort will be made to determine eligibility in advance and only students who have met requirements will be permitted to participate.

Course Numbering System

The word preceding the course number identifies the department offering the course. The first digit in the number indicates in a general way the class level of the course: 100/1000-level courses are primarily for freshmen, 200/2000-level courses for sophomores, 300/3000-level for juniors, 400/4000-level for seniors and 500/5000- and 600/6000-level for graduates. The digit after the dash

denotes the credit-hour value of the course. Thus, "CHEM 101-4" signifies that the course is in chemistry, that it is freshman level, and that it carries 4 hours of credit.

Level of Courses Numbered 900-998:

900-929	Lower division, undergraduate
930-949	Upper division, undergraduate
950-959	Graduate, Level 1
960-979	Graduate, Level 2
980-998	Other

Diplomas

Diplomas will carry the designation of the campus authorized to grant the degree.

Discipline and Latin and departmental honors are shown on the diploma.

The Bachelor of Science or Arts or Innovation (BS, BA or BI) will indicate the field of study, such as business, chemistry, electrical engineering, or physics.

In the Graduate School, the designations are Master of Arts, Master of Science, Master of Sciences, Master of Public Administration, Master of Business Administration, Doctor of Philosophy and Doctorate of Nursing Practice.

Commencement exercises for graduates of the summer and fall term will be held at the end of the fall semester; commencement exercises for graduates of the spring term will be held at the end of the spring semester. Graduates will receive their diplomas approximately 12 weeks after the end of the term in which the degree is conferred. Transcripts are available with degrees posted approximately 6 weeks after the end of the term.

Dropping and Adding Courses

Students will be allowed to drop and add of their own accord through census date (the 12th day of classes of the regular semester or the 6th day of classes of the summer term). Courses that meet less than the full 16 week term in fall and spring and 8 weeks in the summer have special prorated drop and add deadlines. Drop and add deadlines are published in the *Schedule of Courses*.

After this time, the instructor's and dean's signatures (of the college offering the course) are required for adds. For drops, the instructor's signature is required; if the instructor chooses to sign the Course Change Form, he/she is indicating that the student is in good standing and the drop will be processed. If the instructor judges the student to be failing the course, he/she will not sign the form and the student will not be dropped from the course. (Course Change Forms will not be accepted without required signatures.)

After the 10th week of the regular semester or the 5th week of the summer term, courses may not be dropped unless there are circumstances clearly beyond the student's control (accident, illness, etc.). In addition to the instructor's certification (as described above), the dean of the college offering the course must approve the drop.

Students receiving financial aid or veterans benefits must also obtain the signature of the appropriate certifying official.

There are no refunds on individual courses dropped after the census date.

Tuition assessment for courses added after initial registration, which would result in additional tuition charges, will be added to the student's bill. Semester-long courses added after the census date are not eligible for Colorado Opportunity Fund subsidy.

Eligibility to Return Each Session

Degree Students should refer to the appropriate school or college section of this *Bulletin* for information regarding eligibility to return.

Unclassified Students (Major Code NOLD, NOUD, NOHS or NODW) continuation is contingent upon maintaining an overall grade point average of 2.0 upon completion of 12 or more semester hours. Failure to maintain the required average will result in an unclassified student being suspended. The suspension is for an indefinite period of time and becomes part of the student's permanent record at the university. While under suspension, enrollment at the university is restricted to summer terms or courses offered through Extended Studies.

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

Enrollment Status

The definitions for full-time/part-time enrollment are as follows:

1. A full-time undergraduate degree student is one who is enrolled for at least 12 credit hours. Undergraduate degree students are considered part time when they are enrolled for fewer than 12 hours. These criteria also apply for unclassified students without a degree.
2. A full-time graduate student is one who is enrolled for 5 semester hours of graduate level course work, or at least 8 semester hours in a combination of graduate and undergraduate course work acceptable for graduate credit, or any number of thesis hours. Graduate degree students need only enroll for half this amount to be considered full time during summer terms. The definition of "full-time" may be different for graduate students seeking financial aid.
3. Unclassified students with a degree-seeking student loan deferment must be enrolled for 12 semester hours to be considered full-time.

Final Examination Policy

It is the policy of UCCS to adhere to the final examination schedule as published in the *Schedule of Courses* each semester. While it may be appropriate not to give a final in some cases, such as laboratory courses, seminars, and colloquia, final examinations should be given in all other undergraduate courses.

Exceptions to this policy should be agreed upon by the faculty member and the chair of the department no later

than the beginning of the semester in which an exception is requested. The resulting decision should be announced in writing to students in the class during the first week of classes.

In addition to the principles stated above, the following guidelines should be followed by all faculty members and administrators in order to assure fairness and the best possible educational experience for students:

1. The scheduled final examination period should be considered an important part of the course and used as a final examination period or for additional instruction.

2. The final examination in a course should be given as scheduled and not at other times, even if the faculty member and all students in a course agree to such a change.

3. The week of classes proceeding the scheduled final examination period should be used primarily for continued instruction and may include the introduction of new material. No hourly examinations are to be given during the week preceding final examinations.

4. Individual students may be granted a variance from these policies provided the instructor is satisfied that:

   a. the exception is based on good and sufficient reasons (such as religious observances), and

   b. such an exception for an early or late examination will not prejudice the interests of other students in the course.

5. When students have three or more examinations on the same day, they will be entitled to arrange an alternative examination time for the first exam or exams scheduled on that day. Such arrangements must be made no later than the end of the 10th week of the semester (i.e., at the end of the drop period). Students will be expected to provide evidence that they have three or more examinations in order to qualify for exceptions.

6. This policy applies to all undergraduate students, including seniors. Graduating seniors should not be exempted from final examinations. Such exemptions are inappropriate on both procedural and academic grounds.

The actual schedule for final exams appears in the *Schedule of Courses* for the appropriate semester or term.

Grading Policies

Posting

Grades, when posted, are available on the Student Online Center at www.uccs.edu.

Grade Symbols

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

Each College or School individually determines the use of +/- grading.

Standard Grades	Quality Points for Each Hour of Credit
A= superior/excellent	4.0
A(-)=	3.7
B (+)	3.3
B= good/better than average	3.0
B (-) =	2.7
C(+) = 2.3	
C = competent/average	2.0
C (-) =	1.7
D(+)=	1.3
D =	1.0
D (-) = minimum passing	0.7
F = failing	0.0

Special Symbols

NC indicates registration on a no-credit or audit basis

W indicates withdrawal or drop without discredit

IF indicates incomplete - regarded as F if not completed within one year.

(Students should be aware that IF grades are automatically changed to F grades, without formal notification, when the one-year time allowance has passed.)

IW indicates incomplete - regarded as W if not completed within one year. (The College of Business does not give IW grades; for incomplete work it uses the IF grade only.)

IP indicates in progress - thesis or dissertation at the graduate level only.

P/F indicates the pass/fail option - P grade is not included in the grade point average; the F grade is included; up to 16 hours of pass/fail course work may be credited toward a bachelor's degree; a letter grade of D- or above is considered passing.

Explanation of IW and IF

An IF or IW is an incomplete grade. Policies with respect to IF/IW grades are available in the individual college and school dean's offices. Use of the IF or IW is at the option of the academic dean's office.

The student must ask for the incomplete grade. An incomplete grade is given only when students, for reasons beyond their control, have been unable to complete the course requirements. It is understood that a substantial amount of work must have been satisfactorily completed before approval for such a grade is given.

If an instructor decides to grant a request for IF or IW, the instructor sets the conditions whereby the course work will be completed. The coursework must be completed within a year, but the instructor may also set less time than

one year for completion. The student is expected to complete the requirements within the established deadline.

The instructor, with approval of the department, determines if the course should be retaken. If a course is retaken, the student must register for the course and pay the appropriate tuition.

The final grade (earned either by completing the course requirements or by retaking the course) does not result in deletion of the IF or IW grade symbol from the transcript. A second entry is posted on the transcript to show the final grade for the course.

At the end of one year, IF and IW grades for courses that are not completed or repeated will be regarded as F or W, respectively. Requests for an extension of time to complete the course beyond the one-year deadline cannot be approved.

Pass/Fail Enrollment

Students who wish to register for a course on a pass/fail basis do so during regular registration.

Changes to or from a pass/fail basis may be effected during the first 12 class-days of the fall or spring semesters or the first six class-days of the summer term. After this period it will not be possible to change registration unless it is approved by the dean as a specific exception.

Only 6 hours of course work may be taken as P/F in any given semester.

Students should refer to the rules of their particular school, college, and/or department for additional information regarding the guidelines and limitations of pass/fail registration.

The record of pass/fail registration is maintained by the Office of Admissions and Records. Academic deans and faculty will not be aware of specific pass/fail registrations. All students who are registered on a pass/fail basis appear on the regular class roster and a normal letter grade is assigned on the final grade roster by the professor. When grades are received in the Admissions and Records Office, registrations which require a P/F designation are converted by the grade application system. Grades of D- and above convert to a grade of P. Grades of F remain.

Computing a Grade Point Average (GPA)

The grade point average is computed by multiplying the credit points per hour, (A=4, A-=3.7, B+=3.3, B=3, B-=2.7, C+=2.3, C=2.0, C-=1.7, D+=1.3, D=1.0, D-=0.7, F=0) by the number of hours for each course, totaling the hours and the credit points, and dividing the latter by the former. For example:

ENGL 131	3	B	9 credit points
PSY 210	4	C+	9.2 credit points
HIST 101	3	B	9 credit points
CHEM 103	5	A	20 credit points
	15 hours		47.2 credit points

The grade point average is therefore 47.2 divided by 15, i.e. 3.147.

The grade point received at another institution will not be used in computing the student's grade point average at the University of Colorado.

Grades of P, H, NC, Y, W, IP, IW, and IF are not included in the grade point average. IFs that are not completed within one year are calculated as F in the GPA at the end of the one year grace period.

It is University of Colorado policy that the undergraduate GPA, the graduate non-degree (unclassified) GPA, and the graduate degree GPA are calculated separately.

If a course is repeated, all grades earned are used in determining the university GPA

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

Individual Academic Records

All credentials (high school and/or college transcripts, test reports, etc) used for admission become the property of the University of Colorado. When a student has been out of school for four years, the file is destroyed.

The Permanent Record Card showing all academic work done at any of the University of Colorado campuses, including credit courses through the Division of Extended Studies, will be maintained in perpetuity.

Major Declaration

Policy of the Board of Regents requires that students declare a major by the time they have 60 hours towards their degree – by the start of their junior year.

No Credit

See Auditing Courses.

Schedule Changes

The university reserves the right to cancel, postpone, or combine scheduled classes and to change instructors.

Withdrawal from the University

Withdrawal means that the student is dropping all courses for which he or she is registered for a specific term/semester.

A student will be allowed to withdraw during the first ten weeks of the fall or spring semester or the first five weeks of the summer term. After this time, a student may not withdraw unless the circumstances are clearly beyond the student's control; this requires the signature of the dean of the student's academic unit.

A student receiving financial aid or veterans benefits must obtain the signature of the appropriate certifying official. Financial aid may have to be repaid.

The student must obtain approval from the Bursar/Cashier office.

A withdrawal becomes effective on the date the withdrawal form, completed by the student and signed by the student's dean and required certifying officials, is received by the Admissions and Records Office. Eligibility for refund is determined by the date the form is received in the

Admissions and Records Office, not the date the student stops attending class.

Unless the student follows these procedures, the withdrawal is not effective and grades of F will be recorded for all courses not completed.

Writing Competency Requirement for Graduation

(719) 262-4038 or (719) 262-4040.

No student will be awarded a bachelor's degree (BA, BI, or BS) unless he or she can demonstrate competency in writing. Students may demonstrate such competency in either of the following ways:

1. By passing English 131, fulfilling the other composition course requirements stipulated by their college, and then passing the writing competency portfolio assessment administered after the completion of their final 3 credit hours of composition coursework.

2. By completing their UCCS writing requirements through the transfer of equivalent written communication courses taken at a major two-year or four-year institution (C- or better), and upon transferring these courses to UCCS, passing the writing portfolio assignment administered by the Writing Program. Students have one year from their initial enrollment to demonstrate competency by earning a pass on the portfolio. Students who do not pass the competency within one year must alternately complete an advanced writing course at the 300-level. This course will be in addition to other 300-level composition courses stipulated by their college as part of their degree requirements. The "final" composition course for each undergraduate program is listed below:

- For LAS and Nursing students: ENGL 141
- For BUS students: ENGL 307 or COMM 324
- For EAS students: ENGL 307 or 309

For further information about the writing portfolio assessment, see the *Schedule of Courses,* or contact the Writing Program.

Transfer students who have completed all composition requirements before enrolling at UCCS should contact the Writing Program concerning the portfolio assessment during their first semester in order to progress toward graduation in a timely manner.

University Assessment of Student Learning

Student Achievement Assessment Committee

Columbine Hall 203d
719-262-4186

Institutional Assessment

The Student Achievement Assessment Committee, composed of faculty, staff and student members, oversees the implementation and advancement of assessment of student achievement and student learning at the University of Colorado at Colorado Springs. Campus-wide assessment of undergraduate general education is conducted annually, and each major and stand-alone minor creates and implements a unique assessment plan and reports progress annually.

UCCS reports results from various surveys and assessments to the Colorado Commission on Higher Education, our accrediting agency The Higher Learning Commission of North Central Association, as well as other state and public constituents. UCCS faculty and staff also use assessment results to evaluate and improve the quality of general education, major, and distance education programs.

UCCS students are a valuable source of information for helping to determine whether educational programs are meeting stated goals. Through the use of surveys, tests, and other instruments, information is gathered that assists in making improvements to curriculum and teaching that, in turn, can lead to increases in learning by students. Since these efforts are critical to achieving the university's goals, students may be required to participate in the assessment program.

Information collected in assessment processes is kept strictly confidential. Information shared with governmental and accreditation agencies is aggregated and individual student identities are not revealed.

Students may be expected to complete the following:

Freshman Year:

- Entering Student Survey
- National Survey of Student Engagement (NSSE)

Sophomore/Junior Years:

- ETS Measure of Academic Proficiency and Progress (general education test)

Senior Year:

- Graduating Seniors Survey
- ETS Measure of Academic Proficiency and Progress
- National Survey of Student Engagement (NSSE)

Note that in addition to these institution-wide assessments, some departments have assessment requirements where students may be asked to take a standardized test, exit survey, or other form of assessment.

Student Learning Outcomes/Objectives

Each major and stand-alone minor has an assessment plan in place and reports progress annually. These outcomes/objectives are detailed in this *Bulletin* within the individual study programs, and on the assessment website; they come directly from the most recent progress reports on file at the time of the *Bulletin* publication date.

Student Rights and Responsibilities

Academic Honor Code

Academic honesty and integrity are vital elements of a dynamic academic institution. The responsibility for ethical conduct rests with each individual member of the academic community – students, faculty, and staff.

UCCS has an ongoing commitment to maintain and encourage academic integrity. Therefore, the university has created a set of standards of academic honesty and procedures governing violations of these principles. Copies of the UCCS Academic Honor Code document may be obtained at the Kraemer Family Library, from the offices of the deans of the various schools/colleges, from the office of the Dean of Students, or from the Office of the Vice Chancellor for Academic Affairs.

Forms of Academic Dishonesty

1. Plagiarism – use of distinctive ideas or words belonging to another person, without adequately acknowledging that person's contribution.
2. Cheating – intentionally possessing, communicating, using, or attempting to use unauthorized (by the instructor) materials, information, notes, study aids, or other devices, in any academic exercise.
3. Fabrication and Falsification – intentional and unauthorized alteration or invention of any information or citation in an academic exercise.
4. Multiple Submission – submission of substantial portions of either written or oral academic work which has previously earned credit, when such submission is made without instructor authorization.
5. Misuse of Academic Materials – intentionally or knowingly destroying, stealing, or making inaccessible, library or other academic resource material.
6. Complicity in Academic Dishonesty – intentionally or knowingly contributing to the academic dishonesty of another.

These examples of academic dishonesty shall not be construed to be comprehensive, and infractions will be dealt with on an individual basis. It is the obligation of each student to assist in the enforcement of academic standards; infractions – whether by students or faculty – should be first brought to the attention of the instructor.

Detailed instructions about reporting a suspected infraction; appealing an alleged infraction, and applying sanctions for infractions are outlined in the UCCS Academic Honor Code document. Questions about the academic honor code should be addressed to the Dean of Students, Main Hall, room 322, (719) 262-3258.

Affirmative Action

Main Hall, Room 414A
(719) 262-3820

UCCS follows a policy of equal opportunity in education and employment. In pursuance of this policy, no campus department, unit, discipline, or employee shall discriminate against an individual or group on the basis of race, color, religion, sex, age, sexual orientation, national origin, individual handicap or veteran status. This policy applies to all areas of the university affecting present and prospective students or employees.

The institution's educational programs, activities, and services offered to students and/or employees are non-discriminatory and consistent with State affirmative action guidelines, as well as with Federal laws and orders.

For information about these provisions on equity, discrimination, or fairness, as well as internal and external complaint procedures, contact the Affirmative Action Office.

Attendance Guidelines

Students are expected to attend all meetings of classes for which they are registered, including the first and last scheduled meetings and the final examination period. Instructors hold the right and responsibility to establish attendance policies for their courses. Each instructor must inform all classes in writing at the beginning of each semester concerning his/her attendance policies.

If attendance affects course grades, students must be provided with explicit written information concerning that fact no later than the end of the first week of classes. Such information shall be specific with regard to the penalty incurred for each absence and the means, if any, to compensate for the absence.

It is recognized that there may be certain situations where the student may not be permitted to make up the absence(s). Students participating in University-sanctioned activities should consult with instructors prior to registration, but no later than the end of the first week of classes, to determine the class attendance policy. At this time, the student should provide the instructor with a schedule of planned absences, preferably signed by the University official directing the activity, in order to allow the instructor to evaluate and advise the student on the possible impact of the planned absences. In this case, the instructor will consider absences due to participation in approved University activities, as outlined above, to be excused absences, on par with those due to other unavoidable circumstances such as illness.

Faculty judge the validity of student absences from class and may require documentation for excused absences. For classes requiring mandatory attendance incompatible with the number of planned absences, students will be advised to register, if possible, during a semester in which they will not be participating in the University-sanctioned activity. As with any academic issue, students may exercise their right to appeal adverse attendance decisions. Should the instructor and student be unable to agree on appropriate accommodation under this policy, either party shall have the right to request mediation from (in this order) the department chair, the academic dean, and the vice chancellor for academic affairs.

Colorado Rioting Act

No person who is convicted of a riot offense shall be enrolled in a state-supported institution of higher education for a period of twelve months following the date of conviction.

A student who is enrolled in a state-supported institution of higher education and who is convicted of a riot offense shall be immediately suspended from the institution upon the institution's notification of such conviction for a period of twelve months following the date of conviction; except that if a student has been suspended prior to the date of conviction by the state-supported institution of higher education for the same riot activity, the twelve month suspension shall run from the start of the suspension imposed by the institution. Nothing in this section shall be construed to prohibit a state-supported institution of higher education from implementing its own policies and procedures for disciplinary actions, in addition to the suspension regarding students involved in riots stipulated above. (Colorado Revised Statues, 23-5-124).

Family Educational Rights and Privacy Act (FERPA)

Annual Notice to Students: The University of Colorado complies fully with the provisions of the Family Educational Rights and Privacy Act (FERPA) of 1974. The act was designed to protect the privacy of education records, to establish the right of students to inspect and review their education records in all offices, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students also have the right to file complaints with the FERPA office concerning alleged failures by the institution to comply with the act.

Local guidelines explain in detail the procedures to be used by the institution for compliance with the provisions of the act. Copies of the guidelines can be found in the Admissions and Records Office.

The Admissions and Records Office has been designated by the institution to coordinate the inspection and review of student education records located in various university offices. Students wishing to review their education records must come to the Admissions and Records Office and present proper identification. All other records inquiries must be directed to the proper office, i.e., financial aid, bursar, etc.

Students may not inspect the following, as outlined by the act: financial information submitted by their parents, confidential letters that they have waived their rights to review, or education records containing information about more than one student, in which case the institution will permit access only to that part of the record that pertains to the inquiring student. Records that may be inspected include admissions, academic, and financial aid files, and cooperative education and placement records.

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are as follows:

1. The right to inspect and review education records within 45 days of the day the university receives their request for access. Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the educational record(s) they wish to inspect. The university official will make arrangements for access and notify them of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official shall advise them of the correct official to whom the request should be addressed.

2. The right to request the amendment of students' education records that they believe are inaccurate or misleading. They may ask the university to amend a record that they believe is inaccurate or misleading. They should write the university official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the university decides not to amend the record as requested by the student, the university will notify the student of their right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to them when notified of the right to a hearing.

3. The right to consent for disclosures of personally identifiable information contained in their education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit, personnel and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Regents; a student employee; or a student serving on an official committee, or one assisting another school official in performing his or her task. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the university discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the university to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

The Family Compliance Office
U.S. Department of Education
600 Independence Avenue, SW
Washington, DC 20202-4605
(202) 260-3887

The following items of student information have been designated by the University of Colorado as public or "directory" information: name, mailing and permanent addresses, telephone numbers, e-mail address, dates of attendance, registration status, class, previous educational institutions attended, major field of study, awards, honors, degree(s) conferred, past and present participation in officially recognized sports and activities, physical factors (height and weight) of athletes, prior schools attended, date and place of birth. Such information may be disclosed by the institution at its discretion.

Students have the right to withhold directory information from inquirers. The privacy option prevents all directory and enrollment information from being released to all who do not have a clear educational interest for access to this information.

Sexual Harassment

Main Hall, Room 414D
(719) 262-3678
Sexual Harassment Policy

UCCS is a collegial academic community whose mission requires an open learning and working environment which values and protects individual dignity. UCCS' educational process is based upon mutual trust, freedom of inquiry, freedom of expression, and the absence of intimidation and exploitation.

As a place of work and study, UCCS must be free of inappropriate and disrespectful conduct and communication of a sexual nature, of sexual harassment, and of all forms of sexual intimidation and exploitation. Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, living conditions and/or academic evaluation; when submission to or rejection of such conduct by an individual is used as the basis of employment or academic decisions affecting such individual; or when such conduct has the purpose or effect of unreasonable interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or educational environment.

Any person who desires information, has questions about procedures, or feels that he/she may have been sexually harassed is encouraged to speak with the Sexual Harassment Officer. Copies of the university Policy on Sexual Harassment are available on the campus website, www. uccs.edu, from the campus Sexual Harassment Officer, and in most offices on campus.

Standards of Conduct

Dean of Students
Main Hall, room 322
(719) 262-3258

UCCS has established a code of conduct to maintain the general welfare of the university community. The university strives to make the campus a place of study, work, and residence where people are treated with civility, respect, and courtesy. Admission to the university carries with it the expectation that students will be responsible members of the campus community. This includes respecting the personal safety and individual rights of all in the university community, acting in accordance with accepted standards of social behavior, and abiding by the regulations of the university and the laws of the city, state, and nation. The Standards of Conduct clearly state the university's expectations for student behavior.

Students are expected to become familiar with these standards and fully understand their responsibility as university community members.

Jurisdiction

The Standards of Conduct apply to all students at UCCS, regardless of designation, program, or residence. These regulations apply primarily to misconduct on university premises; however, off-campus violations that may impact the university's mission fall under the jurisdiction of the Office of Student Conduct and may lead to disciplinary action. Students may be held accountable to both civil and criminal authorities as well as to the university, for breaking a law that also violates the university standards. Disciplinary action by the university will not be subject to challenge or postponement on the grounds that criminal charges involving the same incident have been dismissed, reduced, or are pending in any state or federal judicial system. In addition, the university can pursue disciplinary action if a student violates a standard of conduct and then withdraws from the university.

Standards

Standards of conduct help promote a safe and civilized campus environment. All students enrolled at UCCS are required to abide by these standards, or they will be subject to discipline. An attempt to commit an act prohibited by these standards, or attempts to aid, abet, or incite others to commit acts prohibited by these standards, are subject to discipline to the same extent as a completed act. Similar standards of conduct apply to other members of the university community – faculty, staff, and visitors.

Prohibited acts are enumerated at uccs.edu/student conduct/. Allegations of any violations should be directed to the Office of Student Conduct for resolution.

Complaints

Any member of the university community may file a written complaint with the Office of Student Conduct alleging that a student has violated the Standards of Conduct. The complaint must include a statement of the facts describing the alleged violation. The Office will not accept anonymous complaints. The Office may also initiate charges. Upon receipt of a complaint, the Office decides whether there is substance to the complaint; whether the complaint falls within the jurisdiction of the Standards of Conduct; and whether disciplinary proceedings should occur. In order

to make this determination, the Office may need to gather additional information about the incident.

Rights and Responsibilities
The Standards of Conduct document details the rights and responsibilities of students accused of misconduct as well as victims of alleged student misconduct.

Additional Information
Questions regarding behavioral issues should be directed to the Dean of Students Office.

Student Appeals
The university has established systematic procedures for students who believe that inappropriate decisions have been made that affect them. Academic issues (for example, graduation requirements or course grades) should be addressed to the office of the dean of the appropriate school/college. Appeals of administrative actions (for example, financial aid awards or parking tickets) should be directed to the office who made that decision. Advice and assistance on appeal procedures are available from the Dean of Students, Room 322, Main Hall, 262-3258. There is a one-year statute of limitations on appeals concerning financial matters.

Housing

Residence Life

Monarch House (719) 262-4322
Email: housing@uccs.edu
http://web.uccs.edu/housing

UCCS residence housing is home to 900 students; all facilities are just a short distance from all campus classroom buildings and facilities. On campus, the Summit Village Residence Halls and the Alpine Village Apartments provide housing options for many of our students.

All rooms include full bath, satellite television, telephone service, and high-speed internet. All pricing for the Summit Village Residence Halls also include a choice of several meal options.

For fall 2007, all housing will be assigned on a first come, first served basis. We encourage all applicants to apply early for the best selection of rooms. Housing agreements are available for the full academic year, as well as the summer term, so students are able to stay on campus the entire calendar year.

Please see http://web.uccs.edu/housing, or visit one of our two offices on campus for further details of all of our housing options.

Off Campus Housing

ROAR office
University Center, first level
(719) 262-3470
web.uccs.edu/commuter/
E-mail: ROAR@uccs.edu

The off campus housing referral service, including listings of rooms, apartments, and houses, as well as students seeking roommates to share their accommodations, is maintained by the Refuge for Organizations, Activities and Recreation (ROAR) office located across from the Information Desk in the University Center.

Public Safety

Public Safety and Student Health Building
(719) 262-3528 (parking) or (719) 262-3111 (police)
www.uccs.edu/pusafety/

The Department of Public Safety is a service agency. The officers of the department are certified, commissioned police officers for the state of Colorado.

911 Emergencies

on campus: 9-911

An "emergency" refers to any situation where there is an immediate danger to life or health of an individual, or individuals, on campus. Emergencies may be related to fires, chemical releases, medical problems or a wide variety of other events. For life threatening emergencies on campus, call 9-911. All other calls for police services, including crime reporting, should be made by calling 262-3111.

Campus Closure

(719) 262-3346

In the event that the campus is closed due to weather or other reasons, the information will be available by calling the above number. Information is also available on Colorado Springs television and radio stations and the Internet by accessing www.newsbridge.net/univcoloratcolosprings/.

Photo Identification

(as of 6/07 Photo IDs are done at the University Center info desk)
Public Safety provides the UCCS photo I.D. card that all fee-paying students, faculty and staff are required to have. This card is required to check out material from the Kraemer Family Library, cash checks on campus, take advantage of special student prices for software or events, or gain admittance into sensitive areas of the campus.

All new students and most transfer students will be automatically billed for an I.D. card, whether or not a card is made. Transfer students from other CU campuses are not automatically billed for an I.D. and must pay for the I.D. at the time it is made. Photo I.D. cards should be made and claimed in the semester during which the automatic charge is made. Individuals requiring a replacement I.D. card must pay $15 at the time the card is made. I.D. photos are taken Monday and Tuesday 8 a.m.- 7 p.m. and Wednesday through Friday from 8 a.m. - 5 p.m.

Police Operations and Environmental Safety
(719) 262-3111

The Department of Public Safety maintains a full-service police operation to respond to reports of criminal acts and emergencies on campus. The Department of Public Safety Office is also responsible for responding to all incidents that occur on campus involving police, parking, traffic, fire prevention and protection, environmental health and safety,

emergency disaster coordination and chemical materials management.

In compliance with the Clery Act, the University Police publishes the UCCS Safety and Security Report in September of every year. Crime statistics listed in this pamphlet reflect reported crime only and are for calendar years January through December. The document is available on line at www. uccs.edu/pusafety/safety.

In addition, Public Safety provides several community services upon request:

1. Motorist assists: dead battery jump-starts, retrieval of keys from locked vehicles, etc.
2. Safety escorts to and/or from vehicles or buildings.
3. Lost and Found Service

Information Technology

IT Help Desk

El Pomar Center, first floor
www.uccs.edu/it
www.uccs.edu/helpdesk
(719) 262-3536

All university students, staff, and faculty receive computer accounts that give them e-mail and allow them to access the campus network from on- and off-campus. Information on computers, accounts, network access, etc. can be obtained from the IT Help Desk in El Pomar Center.

Open Computer Labs

Kraemer Family Library
El Pomar Center, second floor
(719) 262-3422

The Kraemer Family Library open computer lab contain Windows and Macintosh computers. Group study rooms contain two Windows computers each plus additional ports for laptop use. For students who use wheelchairs there are six computers (four Macintosh and two Windows computers) on higher desks. Those needing further assistance with computers, other than what is provided in the open labs, should access the Assistive Technology Lab.

The Assistive Technology Lab is available for users with disabilities during all hours the library is open. All students, staff, and faculty with a documented disability should receive training on how to operate special equipment and software through Disability Services. Please contact Kaye Simonton at Disability Services at 262-3354, Main Hall 105, if you have questions about documentation and/or training.

A Multimedia Development Lab is available for graphics and video processing. Digital still cameras and digital video cameras are available for check-out at the IT Help Desk on the first floor of El Pomar Center.

Columbine Hall Room
(231) 262-4963

The Columbine lab contains Windows and Macintosh computers.

Computerized Classrooms

The IT Department provides several classrooms across campus with computing capabilities. Some are computerized classrooms with an average of 25 computers for student use. Others have a podium with a computer, DVD/VCR, and projection capabilities to enhance lectures by allowing the integration of multimedia presentations.

E-Mail Policy

1. UCCS use of e-mail. E-mail is an official means for communication within the university. Therefore, the university has the right to send communications to students via e-mail and the right to expect that those communications will be received and read in a timely fashion.

2. Assignment of student e-mail addresses. Information Technology (IT) will assign all students an official UCCS e-mail address at the time registration is confirmed (after the down payment). It is to this official address that the university will send e-mail communications.

3. Redirecting of e-mail. A student may have e-mail electronically redirected to another e-mail address. If a student wishes to have e-mail redirected from his or her official address to another e-mail address (e.g., @ aol.com, @hotmail.com, or an address on a departmental server), they may do so, but at his or her own risk. UCCS will not be responsible for the handling of e-mail by outside vendors or by departmental servers. Having e-mail redirected does not absolve a student from the responsibilities associated with communication sent to his or her official e-mail address.

4. Expectations regarding student use of e-mail. Students are expected to check their official e-mail address on a frequent and consistent basis in order to stay current with university communications. UCCS recommends checking e-mail once a week at a minimum in recognition that certain communications may be time-critical.

5. Educational uses of e-mail. Faculty may determine how e-mail will be used in their classes. It is highly recommended that if faculty have e-mail requirements and expectations, they specify these requirements in their course syllabus. Faculty may expect that students' official e-mail addresses are being accessed and faculty may use e-mail for their courses accordingly.

6. Appropriate use of student e-mail. In general, e-mail is not appropriate for transmitting sensitive or confidential information unless its use for such purposes is matched by an appropriate level of security.

a. All use of e-mail, including use for sensitive or confidential information, will be consistent with the Policy Statement on use of e-mail posted on the IT web page – www.uccs.edu/it.

b. Confidentiality regarding student records is protected under the Family Educational Rights and Privacy Act of 1974 (FERPA). All use of e-mail, including use for sensitive or confidential information, will be consistent with FERPA.

c. E-mail shall not be the sole method for notification of any legal action.

CU-NET

(719) 262-3597

CU-NET Courses

UCCS offers live, interactive, credit-bearing classes over the CU-NET instructional television system. CU-NET broadcast classes are regular courses and off campus students will have access to the instructor through a standard telephone connection. Off-campus students will be expected to follow the same syllabus and meet the same course requirements as in-class students.

Course offerings vary semester-to-semester. CU-NET classes are available to adult learners over Comcast. Anyone subscribing to Comcast will receive the classes as part of their basic service; however, to receive credit for classes, students must enroll through the Extended Studies division of the College offering the course.

A three-campus network provides video, voice and data transmission among the three campuses and supports, in addition to academic courses, administrative teleconferencing and professional development training.

Teleconferencing

CU-NET provides professional teleconferencing services to the campus community and public and private enterprises in the Pikes Peak Region. Down-linking services are available on campus. Up-linking services are not currently available.

Student Academic Resources, Opportunities and Programs

Army ROTC

Department of Military Science
Eagle Rock Building 201
(719) 262-3520

The Army Reserve Officers Training Corps program is available to UCCS students. Enrollment in the basic courses (100/200 level) is available to all full-time students. Enrollment in advanced courses (300/400 level) is open to juniors and seniors who have successfully completed all basic courses or LTC (Leader's Training Course), or to veterans at any level. All students should be academically aligned between their ROTC level and academic level (i.e., a freshman should enroll in freshman ROTC classes). Scholarships are available to qualified students. Completion of the ROTC program leads to a commission as an officer in the United States Army, Army National Guard or Army Reserve upon graduation. A minor in Military Science is available. Interested students are encouraged to consult with the Department of Military Science.

Chancellor's Leadership Class

Main Hall, room 318
(719) 262-3065

The Chancellor's Leadership Class is a leadership development program for the undergraduate student which focuses on leadership studies, applied leadership experience, community involvement, personal and professional development, and mentoring. Visit the CLC website www.uccs.edu/clc for an application and more information.

Academic Learning Centers

EXCEL Centers

web.uccs.edu/projexcel/

Project EXCEL is a program designed to help students achieve academic success during their collegiate careers. The activities and support services of Project EXCEL are provided to students via five learning centers located across the campus. The Centers provide programs that are linked to and support the academic curriculum across the campus. Refer to the Internet for hours of operation or contact each of the following Centers directly.

Language Technology Center
Dwire Hall, room 347
(719) 262-3690
Fax (719) 262-3146

Mathematics Learning Center
Engineering Building, room 129
(719) 262-3687
Fax (719) 262-3605

Oral Communication Center
Columbine Hall, room 312
(719) 262-4770

Science/Health Science Learning Center
Science Building, room 145
University Hall, room 202
(719) 262-3689

Writing Center
Columbine Hall, room 316
(719) 262-4336

Engineering Learning Centers

ECE Help Center
ENG, room 232
(719)262-3187

MAE Help Center
UH, room 233

CS Help Sessions
(719)262-3544

Pre-Collegiate Development Program

Main Hall, room 303
(719) 262-3239

UCCS has entered into a partnership with public schools in the Pikes Peak region, including Pueblo schools, to help prepare under-represented and first generation college students to be competitive for college entrance upon graduation from high school.

The program consists of leadership development, higher education awareness, and planning necessary to attain a higher education degree through Saturday Academy workshops and summer program courses for college credit. Students remain in the program until they graduate from high school. The program is for secondary students in grades 9 through 12, with a middle school program that serves students in grades 7 and 8.

Campus Facilities

Bookstore

University Center, lower level
(719) 262-3247
www.uccsbookstore.com

The Bookstore caters to the special needs of the academic community. The educational pursuits and the professionalism of the students, faculty, and staff dictate a full service store offering required course materials, optional course materials, self-help guides, software, and computer accessories, as well as best sellers, general reading books, cards, posters, clothing and gift items, including Mountain Lions insignia items, school supplies and much more. For convenience, personal checks with proper identification, MasterCard and Visa cards are accepted.

The Bookstore is open year-round, five days a week, with special hours at the beginning of fall, spring, and summer terms. In special situations, the hours may vary.

Textbooks

Required and optional course materials are available in the Bookstore. Each course taught is identified by its shelf tag listing course information and arranged according to department, course number, and section. Some used books are available for most classes. Used books sell for 25 percent less than a new book's list price.

Convenience Store

University Center, next to the Bookstore

The Convenience Store provides additional products to meet the needs of students, such as snacks, grocery items, personal products and more.

Family Development Center

1425 Austin Bluffs Parkway
(719) 262-3483

The Family Development Center provides quality, affordable pre-school programs and child care for university families and the community at large. The Center offer educational programs for children ranging in age from 1 year (and walking) to 10 years.

The Center maintains a staff of highly qualified and caring teachers. The activities in the classrooms are planned by professional lead teachers trained in early childhood/child development. Lead teachers are assisted by additional teachers and aides. The Center strives to meet the standards for low child/staff ratios adopted by the National Association for the Education of Young Children (NAEYC).

The Center is open Monday through Friday. Rates are competitive, with discounts and some scholarships available for UCCS students.

Enrollment is limited and is on a first come, first served basis, with priority given to UCCS students. Phone or visit the Center for further enrollment information.

Kraemer Family Library

El Pomar Center
(719) 262-3296
web.uccs.edu/library

The Kraemer Family Library supports learning, teaching and research activities of the students and faculty by providing a diverse collection of more than one million items and offering a wide array of information services. These services include a comprehensive library instruction program, electronic data bases, interlibrary loan and reference services. Access to a wide variety of electronic resources and the library's online catalog is available through the library web page.

The library is housed in El Pomar Center. Library services are available 90 hours per week during the regular semesters. Individual study carrels, computer labs, multimedia development labs, group study rooms, and copy machines are available. Special equipment and software are available to assist the hearing and visually impaired gain access to library materials.

Library users have access to the library's collection of 439,000 book volumes, 726,000 microform volumes, 11,000 maps, and 7,400 media items. These items include 925 paper and 27,000 electronic journal titles as well as U.S. and Colorado government documents. In addition, students and faculty have access to the collections of many of the state's other academic libraries through personal visits, shared electronic catalogs or interlibrary loan. The library's interlibrary loan agreements also provide students and faculty with access to the collections of most of the libraries in the U.S. and other countries.

Print Shop

Campus Services Building, room 230
(719) 262-3213
www.uccs.edu/printshp/

The Print Shop offers full service printing and copying, including color copies, binding laminating and faxing services to students, faculty, and staff.

University Center

(719) 262-3450

The University Center is the community center for the university, serving students, staff, faculty, administration and guests. The University Center complements the academic programs by providing support to the out-of-classroom experience through an extensive array of cultural, recreational, social and educational programs. A student-centered organization that values participatory decision-making and volunteerism, the University Center provides programs through the services and facilities that are within the Center: Refuge for Organizations, Activities and Recreation (ROAR), including the Office of Campus Activities, Student Government Association and Student Organizations, Recreational Sports, The Scribe, Information Desk, Intercollegiate Athletics, Meeting Rooms, Lounges, Game Room, Overlook Snack Bar, Bookstore, Convenience Store, and Copy Center.

The University Center is supported by mandatory student fees. These fees finance repayment of the bond debt and support entertainment, cultural and educational programs and services not supported by the university's general fund. The University Center fees are $33 base per head and $9.50 per credit hour.

Student and Alumni Services

Alumni and Community Relations

Main Hall, room 416

(719) 262-3180

www.uccs.edu/alumni

The Office of Alumni and Community Relations works to provide programs and services which build a mutually beneficial and enduring relationship among alumni, students, the university and the community.

Counseling and Testing Center

Main Hall, room 324

(719) 262-3265

The University Counseling Center (UCC) helps students maximize their learning experiences. When students have difficulties with personal issues, career indecision, or relationship problems, academic achievement may suffer. The UCC exists to help students with these issues, using short-term therapy approaches. There is no charge for initial or emergency sessions. There is a nominal fee for on-going group or individual sessions.

The UCC provides the following:

1. individual, couples, family and group counseling to help students address personal problems experienced while enrolled at the university
2. workshops that address mental health needs and academic skill needs of students
3. consultation services for faculty, staff and students
4. mental health information and referral services.

Testing services include:

1. American College Test (ACT) Residual: an entrance exam for undergraduates. The results are valid for admission to the CU system only. Cost is $40.
2. Correspondence Exams- There may be a charge
3. Graduate Record Exams (GRE)- subject based. An entrance exam for graduate programs. Visit www.gre.org to register and pay.
4. Miller Analogies Test (MAT)- an entrance exam for graduate programs. Cost is $70.
5. Reasoning Skills Test: an exam used to satisfy the LAS Quantitative and Qualitative Reasoning Skills Requirements. Cost is $20.

The testing center also provides on campus proctoring for make up exams and exam proctoring for those students who may need extra time or a less stimulating environment, at the discretion of the professor.

For information, costs, and scheduling, please call.

CU Opportunity Program (CUOP)

University Center, room 110

(719) 262-3040

Email: acordova@uccs.edu

CUOP is a special program that seeks to provide equal educational opportunity for students who have not traditionally been part of the university environment. The program strives to recruit, admit, retain, and graduate historically underrepresented students.

The primary focus of CUOP is to increase the historically underrepresented student population, which includes ethnic minorities, first generation and economically or academically disadvantaged students. However, it is also CUOP policy not to exclude anyone showing a need for the services offered by the program. The program has a cooperative relationship with the office of admissions, financial aid and academic departments. This relationship allows the staff to be available to assist CUOP students who experience difficulties in any of these areas. Interested students should contact the CUOP coordinator, preferably before admission to the university.

Dean of Students

Main Hall, room 322

(719) 262-3258

E-mail: dos@uccs.edu

The Office of the Dean of Students serves as a link between individual students, student government, and the various academic and administrative offices of the university. The Dean of Students and the Dean's staff serve as advocates for students' interests and needs to the rest of the university. Students who have a suggestion or concern should contact the office.

Disability Services

Main Hall, room 105
(719) 262-3354 V/TTY
E-mail: disbserv@uccs.edu

The purpose of Disability Service (DS) is to provide students with disabilities reasonable accommodations and support services to participate fully in the academic environment. Documentation is assessed under Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and DS requirements. A student with a disability that requires accommodations in the academic environment should call the Disability Services Office for an appointment to discuss needs and available services.

International Student Services

Main Hall, room 104
(719) 262-3238 or (719) 262-3819

International Student Services serves as an advocate for foreign students attending or planning to attend UCCS, by identifying services and programs that can assist in meeting their needs. This unit promotes, supports, and develops any activity that brings about a cross-cultural understanding and sensitivity on campus. The unit is responsible for providing current and future international students with information and services available to them on campus and in the surrounding community.

Student Health Center

Public Safety and Student Health Building
(719) 262-4444
Fax: (719) 262-4446
E-mail: hlthcntr@uccs.edu
Website: http://web.uccs.edu/healthcenter

Services

The Student Health Center provides convenient and affordable access to quality medical care for eligible students. Medical insurance is not required to be seen for an appointment.

The Center provides health care services 40 hours per week during fall/spring semesters, including Monday evening hours, and abbreviated hours for all breaks and summer semester. Services include, but are not limited to, diagnosis and treatment of minor injuries and illnesses, administration of MMR and other vaccines, routine gynecological exams, birth control consultation, health education, and referral to community health resources as needed. Limited lab and medication are also available on-site. For additional information please visit our website.

Immunization Requirement

The Colorado Department of Health and Environment requires any student who: 1) is enrolled for one or more classes at a college or university, 2) who is physically present at the institution, including auditing classes but excluding correspondence/distance learning classes, and 3) born January 1, 1957 or later, to be immunized against Rubeola measles, Rubella, measles and mumps (MMR), or provide documented proof of immunity to all three. Individuals born before January 1, 1957 are presumed immune and are exempt from the immunization requirement.

In order to comply with this State law, you must do one of four things:

1. Provide a copy of documentation from a health care professional that you have met the requirements of two MMR immunizations. Records must include month, day and year of each shot, an official signature or stamp or official letterhead. Note: obtain CERTIFIED records from your former college, high school, doctor's office, military records or family (certified) records.
2. Provide a copy of proof of immunity by blood lab tests for the Rubeola measles, mumps and Rubella measles.
3. Request an exemption from the law on personal, religious or medical grounds.
4. Get two MMR immunizations (30 days apart) immediately.

Please bring (or fax to 719-262-4403) a copy of your immunization records to the Health Center. The Health Center will assist you in complying with this state law. MMR immunizations are available at a reduced cost at the Health Center; call for an appointment. You may also receive the immunizations from your personal health care provider or your county health department.

Student Health Insurance

Information on Student Health Insurance is available through the Dean of Students Office.

Student Multicultural Affairs

University Center, Room 110
(719)262-3040
Website: http://web.uccs.edu/oama

The office of Student Multicultural Affairs promotes a campus environment that is inclusive and supportive of students from diverse cultural backgrounds. The office works with student organizations and campus departments to provide activities and programs that celebrate cultural diversity. The director and the assistant coordinator serve as advocates for students from underrepresented populations.

Office of Veteran Affairs and Military Student Affairs

Main Hall, room 101
http://www.uccs.edu/military/
(719) 262-3253

The University of Colorado At Colorado Springs is dedicated to assisting all students in reaching their educational goals while serving our country. The mission of the Office of Veteran and Military Student Affairs (OVMSA) is to assist Veterans, active duty military, and all students eligible for military education benefits.

Veteran Education Benefits
The office is supervised by the University, and bound to complete documentation and maintain records according to the guidelines of the Department of Veteran Affairs (DVA) and the Colorado State Approving Agency for Veteran Education and Training.

Military Tuition Assistance
Military tuition assistance varies per branch of military service. OVSMA is a valuable resource to guide military students in the utilization of education benefits.

Procedures
Students eligible for VA benefits or tuition assistance must complete the appropriate paperwork. A student must be registered in classes before certification is processed. All students receiving benefits must complete a course load worksheet each semester. All first-time students must visit the OVMSA in person.

Military Activation
A student in the armed forces who is given orders to deploy, relocate or go on temporary duty (TDY) should contact the OVMSA. After presentation of orders, the OVMSA will assist students with the notification to applicable departments and professors of deployment and/or training. Students will need to complete the deployment checklist at http://www.uccs.edu/deploy

Student Athletics, Organizations and Recreational Programs

Intercollegiate Athletics

University Center, third floor
(719) 262-3601
www.uccs.edu/athletic/

The Intercollegiate Athletic program at UCCS seeks to carry out its primary mission of developing exemplary student athletes who participate in the total spectrum of university life. Exemplary student athletes play intercollegiate sports and also focus on education, good character, no substance abuse, leadership and goals.

To that end, UCCS sponsors 12 varsity sports that compete at the NCAA Division II level in the Rocky Mountain Athletic Conference (RMAC). Varsity sports include men's and women's basketball, men's and women's cross-country, men's and women's indoor/outdoor track, women's volleyball, women's fast-pitch softball, men's soccer, and men's golf.

The UCCS Mountain Lion volleyball and basketball teams compete in the "Lion's Den," a 400 seat gymnasium located on the second floor of the University Center in the heart of the campus. The softball team plays at the Mountain Lion Field located at the 4-Diamond Complex on Nevada Avenue, just north of Austin Bluffs. The soccer team plays at Mountain Lion Stadium. The UCCS men's golf team plays at local golf clubs.

UCCS offers athletic scholarships that are awarded on an individual basis by the head coaches of each of the varsity sports according to the NCAA guidelines.

Campus Recreation Office

University Center, second floor
(719) 262-3463
web.uccs.edu/recsports/

The Campus Recreation Office provides indoor and outdoor facilities, equipment, programs and services that support the leisure and wellness needs of UCCS students, faculty and staff. This is accomplished in a variety of ways including:

- *Club Sports* – university approved clubs sponsor instructional, recreational and competitive programs for their members. Club teams include, but are not limited to, cycling, karate, fencing, rodeo, baseball, women's soccer, martial arts, mountain biking, and ice hockey.
- *Intramurals* – provides broad recreational and competitive opportunities through team and individual leagues and special event activities. A few of the intramural leagues include softball, volleyball, basketball, soccer, table tennis, flag football, broomball and dodgeball.
- *Open Recreation* – free student access to the gym and fitness center during posted hours.
- *Outdoor Equipment Rental* – an ever-increasing inventory of outdoor equipment is available for a nominal fee and on a first come-first served basis.
- *Outdoor Facilities and Programs* – access to sports facilities by reservation and various outdoor trips.

Refuge for Organizations, Activities and Recreation (ROAR)

University Center, first level
(719) 262-3470
E-mail: ROAR@uccs.edu

The Refuge for Organizations, Activities and Recreation (ROAR), located across from the University Center Information Desk, is the students' doorway to campus life!

Through involvement in one or more of the areas within the ROAR, students are guaranteed to grow personally, make lifelong friendships, develop valuable lifetime skills, have input into the programs and services offered, contribute to the present and future of the university, and have great fun in the process.

Office of Campus Activities (OCA)
University Center, Room 104
(719) 262-3540
Email: oca@uccs.edu
www.uccsoca.com

The Office of Campus Activities (OCA) is the programming office for student events on campus, led by two co-presidents who are student employees; eight other students are employed as the council chairs. OCA's mission statement

is "Leading & Learning Together . . . Creating community through entertainment, enrichment, and inclusion." The UCCS community is encouraged to be involved in the selection and production of events. OCA provides a great way to meet people, learn and build upon skills, and explore career opportunities.

A few traditional events sponsored by OCA include DisOrientation Week, Adopt-a-Mountain Lion Campaign, Get Vocal with the Locals, ROAR Daze, and Talent Night. Most events are free to students and open to the entire UCCS community. For more information, call 262-3128 or 262-3532, come by the office, or check out our website.

Student Government and Student Organizations

(719) 262-3470

All students at UCCS are automatically members of the Student Government Association, the official voice of the student body. Student Government provides a wide variety of activities and services. For more information call or visit the office in the ROAR.

In addition, there are more than 100 student clubs and organizations at UCCS. They include academic, social, religious, sports, political, honorary, and special interest organizations. Enjoy the satisfaction of being part of a group and getting things done, meeting people with similar interests, and developing leadership skills. For information about how to join an organization or to form a new organization, students are encouraged to call or come by the ROAR Office.

The Graduate School

Tom Huber, Dean
Main Hall 304B
Telephone: (719) 262-3417
Fax: (719) 262-3045
gradschl@uccs.edu
web.uccs.edu/gradschl

Effective in 1999, each CU campus organized its graduate programs within an autonomous Graduate School. Thus, UCCS has its own Graduate School with a Dean and a Graduate Executive Committee, who administer Graduate School requirements and policies on this campus and resolve graduate academic issues.

The Graduate School provides oversight and coordination for all graduate programs on the campus, while the individual departments within the specific colleges provide the curriculum, faculty, and program advisors for the degree.

For further information, contact the specific department within its college or the Graduate School at the above address.

Mission

The mission of the Graduate School is as follows:

- To promote excellence in graduate education
- To facilitate and enhance the educational experience and opportunities for graduate students
- To oversee and coordinate all graduate programs
- To ensure compatibility among programs and compliance with Graduate School policies.

Vision

It is the vision of the Graduate School to maintain high standards and the quality of programs, and to develop and administer them in accord with general standards of excellence and sound academic administration.

Graduate Programs of Study

The programs at the graduate level that are available for completion through the University of Colorado at Colorado Springs are listed on the following page.

Graduate Admission

A student who is granted admission to a graduate program must reflect, in a moral and ethical sense, a personal background acceptable to the University. The University reserves the right to deny admission to applicants, or to cancel the enrolled status of current students, whose total credentials reflect an inability to assume those obligations of performance and behavior deemed essential by the University and relevant to any of its lawful missions, processes, and functions as an educational institution.

Students may be admitted to the Graduate School in any of the five categories – regular, provisional, guaranteed early, fast-track, and re-admission – described in the following pages.

Admission Prerequisites

An applicant for admission as a regular degree student must meet the following minimum requirements. Some programs may have additional requirements for regular admission, and requirements for Guaranteed Early Admission (described below) are also higher. Qualified students are recommended for admission to regular degree status by the appropriate department.

- Hold a baccalaureate degree or a Master's degree from an accredited college or university, or demonstrate completion of work equivalent to the baccalaureate or Master's degree given at this University
- Have an undergraduate grade point average of 2.75 or better in a 4.0 system **OR**
- Have a combined undergraduate grade point average and score on a national standardized admissions test that meet criteria determined by the program **OR**
- Have completed 15 semester hours of relevant graduate course work at an accredited university with a grade point average of 3.25 or better. (Note that units completed before admission may not all be transferable into a graduate degree program.)
- Have adequate preparation to enter graduate study in the chosen program, and meet the requirements for admission, as determined by the program faculty.

For students who do not meet the above criteria, program faculty may assign course work and/or examinations that must be taken in order to make up deficiencies.

Application Procedures

Regular Admission Application Process

Applications for admission to an advanced degree program should be sent to the appropriate UCCS department or program office. The complete application must include the following:

- Part I and Part II of the graduate application (including the Residency form)
- Two official transcripts of all academic work completed to date, sent directly from the academic institutions attended
- A nonrefundable application processing fee
- Test scores, letters of reference, and other materials as required by specific programs
- For international applicants, a score on the Test of English as a Foreign Language (TOEFL).

Graduate School Programs of Study

College	Disciplines	Master's Degrees	Doctorate
College of Business	Accounting	MBA	
	Finance	MBA, distance MBA	
	Business	MBA, distance MBA	
	Health Care Administration	distance MBA (only)	
	Homeland Defense	distance MBA (only)	
	Information Systems	distance MBA (only)	
	International Business	MBA, distance MBA	
	Management	MBA, distance MBA	
	Marketing	MBA	
	Operations Management	MBA	
	Project Management	distance MBA (only)	
	Services Management	MBA	
	Technology Management	MBA, distance MBA	
College of Education	Counseling and Human Services – 4 tracks: school, mental health, college and military	MA	
	Curriculum and Instruction – 5 tracks: general, leadership, LDE, reading, science education	MA, online MA	
	Educational Leadership and Research Policy	MA	PhD
	Special Education	MA	
College of Engineering & Applied Science	Engineering	ME*	PhD**
	Computer Science	MS	
	Electrical Engineering	MS	
	Mechanical Engineering	MS	
College of Letters, Arts & Sciences	Applied Geography	MA	
	Biology	MSc***	
	Chemistry	MSc***	
	Communication	MA	
	History	MA	
	Mathematics	MS, MSc***	
	Physics	MSc***	
	Psychology	MA	PhD****
	Sociology	MA	
Graduate School of Public Affairs	Criminal Justice	MCJ	
	Public Administration	MPA, MPA online	
Beth-El College of Nursing & Health Sciences	Forensic Health – Health Care Sciences	MSc***	
	Health Promotion – Health Care Sciences	MSc***	
	Sports Medicine – Health Care Sciences	MSc***	
	Nursing	MSN	DNP

* The Masters of Engineering degree offers options in Engineering Management, Information Assurance, Software Engineering, and Space Operations and Systems Engineering.

** The newly restructured PhD program in Engineering includes the previously offered specialization in Electrical Engineering, plus allows for new focus areas not previously available. These new areas include traditional specializations such as Mechanical Engineering and Computer Science.

*** The Master of Sciences is a multi-disciplinary advanced degree. Options within the Master of Sciences degree include Biology, Biotechnology/ Biochemistry, Chemistry, Exercise Science, Forensic Science, Mathematics, Science Teaching, Sports Medicine and Physics.

**** The PhD in Psychology has an emphasis in geropsychology.

The Department of English offers coursework applicable to a Masters of Arts degree in English.

All credentials presented for admission become the property of the University of Colorado.

Deadlines

Although students may apply at any time, application material must be received by March 1 for maximum consideration for financial support starting in the fall semester.

Complete applications (including all supporting documentation) submitted to the program office at least 60 days prior to the term for which admission is sought are normally assured full consideration for admission; some programs have established earlier deadlines.

Completed applications for foreign students must be on file in the Office of Admissions and Records prior to April 1 for the fall semester and October 1 for the spring. All foreign students interested in graduate admission must begin the process with the Foreign Student Adviser in the Office of Admissions and Records.

Graduate Admission Examinations

Graduate programs may require the Graduate Record Examination (GRE), Graduate Management Admission Test (GMAT), or the Miller Analogies Test (MAT). Applicants must check specific departmental testing requirements. Information regarding the tests, dates scheduled, and procedures for enrolling is available from the Testing Services Office in Main Hall, Rm. 324.

Provisional Admission

Any applicant who does not meet the criteria for admission as a regular degree student may be recommended by the faculty for admission as a provisional student. The recommendation must include a statement of the conditions that the student must meet in order to become a regular degree student. When the conditions for regular status are met, the program director has the responsibility to reclassify the student to regular status.

Provisional students are subject to the same standards of performance required of regular degree students, in addition to other requirements a program faculty may impose as conditions of admission.

Guaranteed Early Admission

This special guaranteed-admission option is available to UCCS students currently enrolled in their final semester of undergraduate study. This option may also be exercised by UCCS undergraduate alumni within one year after their graduation. If the applicant meets all the admission requirements for this option, admission to the graduate program of interest is guaranteed. The special admission requirements for this option vary by graduate program, and applicants under this option must contact their graduate program of interest to determine that program's requirements.
The application process for Guaranteed Early Admission can be obtained from the Graduate School website or the individual department.

Fast-Track Admission

This special admission-process option is available to any UCCS undergraduate alumnus within the first four years after their graduation. This is not a guaranteed admission option, however, but rather an expedited admission process. Under this option, the applicant completes only a special one-page application form available from their graduate program of interest. This form, along with the application fee, is submitted to the program director. In most cases other application requirements, such as letters of support and transcripts, are significantly less than for the regular admission process. The specific requirements for this option are available from the respective graduate program.

The application process for Fast-Track Admission can be obtained from the Graduate School website or the individual department.

Readmission of Former Students

A student previously admitted to a graduate program who did not complete the degree and has not been continuously registered at the University but now wishes to return, must do the following:

- Clarify status with the program to determine eligibility to return and pursue the same degree
- After receiving program approval to continue work on the degree, submit a new Part I of the application to the program office before deadlines have passed for the term of expected return

A former student will not be charged an application fee unless any coursework to be applied to the degree was taken more than six years prior to the student's return.

A student admitted to the Graduate School for a Master's program must reapply for admission for a doctoral program. A student applying to a doctoral program from a Master's program in the same department, with no break in attendance, will not be charged an application fee.

A dismissed student is eligible to reapply for readmission after one year. Approval or rejection of this application rests with the student's major department.

Former students who wish to change from one major to another should consult with their department chairperson and complete the appropriate forms.

Unclassified Students

A student holding a baccalaureate degree who wishes to take graduate courses but does not wish to earn an advanced degree from the University of Colorado should apply to the Office of Admissions and Records for admission as an unclassified student. (See the Unclassified Student section in General Information.)

Notification of Acceptance

After the Office of Admissions and Records has received the Graduate School approved departmental recommendation and all required credentials, the applicant will be notified regarding eligibility for admission. If eligible, the applicant will receive a letter of acceptance from the Office of Admissions and Records.

Admission to Candidacy

Admission to the Graduate School is not the same as admission to candidacy for an advanced degree. A student who wishes to become a candidate for a degree must make special application at the time and in the manner prescribed by the requirements for the degree sought; see academic requirements for Master's and Doctoral degrees.

Graduate Academic Policies and Rules

The official policy of the Graduate School is contained in the Rules of the Graduate School. These rules are available in the office of the Graduate School, Vice Chancellor for Academic Affairs, on the UCCS web site web.uccs.edu/gradschl, and in each graduate program office.

Courses Applicable to a Graduate Degree

Transfer Courses

Work already applied toward a completed Master's degree received at another institution cannot be accepted for transfer toward the Master's degree at the University of Colorado; extension work completed at another institution cannot be transferred; correspondence work, except to make up deficiencies, is not recognized.

Transfer credits may be applied to a graduate degree only with the approval of the program director. Each program will establish, with the concurrence of the Graduate School Executive Committee, the maximum number of semester hours that may be transferred from another accredited institution and applied toward its graduate degree without special approval of the Graduate Dean. The following provisions will apply:

- All transfer courses must have a grade of B minus or above.
- Some programs may require that credit will not be accepted for transfer until the student has established a satisfactory academic record at this university.
- For Master's degree students, all work accepted for transfer must have been completed within the six-year time limit or be validated and approved by program faculty.
- Courses applied towards one Master's degree may not be used towards another Master's degree.
- Requests for transfer of credit must be made on the form specified for this purpose. Official transcripts of credit must accompany requests or be on record.
- Master's degree students must submit transfer requests to the program director by the beginning of the semester prior to the semester in which they will graduate.
- Doctoral degree students must submit transfer requests to the Graduate School before making application for admission to candidacy.

Courses Taken During Senior Year

Seniors at UCCS may transfer up to nine semester hours of coursework, provided such work meets the following requirements:

- Completed with a grade of B minus or above in the senior year at this University
- Comes within the time limit for the completion of the graduate degree
- Has not been applied toward another degree
- Is approved by the program director

Undergraduate credits from another institution may not be transferred to the Graduate School.

Undergraduate Courses

No lower division course nor undergraduate courses designed to improve basic skills may be used as credit towards a graduate degree. A program may require a student to take undergraduate courses as a means of making up deficiencies, but the credits generated in these courses may not be counted in the minimum number required for the degree.

Courses Taken While in Unclassified Status

Credits earned as an unclassified student at UCCS may be applied to a graduate degree only with the approval of the program director. Each program will establish, with the concurrence of the Graduate School Executive Committee, the maximum number of semester hours taken in unclassified status that may be applied toward its graduate degree without special approval of the Graduate Dean. Coursework in progress during the semester in which formal admission is granted does not apply to this unclassified total.

Extended Studies Courses

Students may use the resources of the Division of Extended Studies in the pursuit of graduate study only if they obtain proper academic approval from the program director.

Graduate Courses

A graduate level course is any course that bears the graduate number appropriate to the discipline (i.e., 500- 900 or 5000-9000) and is taught by a member of the graduate faculty.

Independent Study

Independent study credit hours may not exceed 25% of the minimum number required for the degree.

GPA and Satisfactory Academic Progress

A graduate student is expected to maintain at least a 3.0 cumulative average in all work attempted in Graduate School. Students who fail to maintain this standard of performance will be subject to probation or dismissal from the Graduate School by the Dean, with the approval of the major department. Appeals may be made to the campus Graduate Executive Committee, whose decision is final.

A student who receives a grade below B minus in a course may repeat that course once, upon approval of the program director, provided the course has not been pre-

viously applied toward a degree. The grade received in a repeated course will substitute for the original grade and only the latter grade will be used in calculating the Graduate Program grade point average required for graduation. However, all grades received will appear on the student's transcript. Work receiving a grade of less than C may not be counted toward any graduate degree. An in-progress (IP) grade given for thesis will be valid and must remain unchanged until the thesis has been completed

Registration

New degree or unclassified students are notified of eligibility to register for course work through the Statement of Eligibility for Admission mailed from the Admissions and Records Office. If this notice has not been received in time for registration, an inquiry should be made to Admissions and Records. Degree and unclassified students who do not stay continuously enrolled (having missed a fall and/or spring semester registration) must check with Admissions and Records 60 days before the next intended registration period to make sure of eligibility to register during regular registration. Former students should follow the same procedure. Degree students changing departments or graduate degree programs should begin the change process with the new department.

Limitation of Registration

Full Load

Graduate students will be considered to be carrying a full load during a regular semester for purposes of determining residence credit if they are registered for not fewer than 5 semester hours in courses numbered 500 (or 5000) or above, or any number of thesis hours. A full load for purposes of determining residence credit during the summer session is 3 semester hours of work in courses numbered 500 or above, or any number of thesis hours.

Maximum Load

No graduate student may receive graduate credit toward a degree for more than 15 hours in a regular semester. The maximum number of graduate credits that may be applied toward a degree during a summer session is 6 hours per 4-week term and 9 hours per 8-week summer session.

Regulatory Compliance

The student, in consultation with his or her advisor, is responsible for obtaining and documenting appropriate institutional committee approval for research involving human subjects, animals and/or biohazards. This approval must be received prior to the student undertaking their research.

Student Ethics

Students are expected to adhere to the highest codes of personal and professional ethics, as set forth by the Honor Code of UCCS, which appears each semester in the *Schedule of Courses*. Students who do not meet these standards may be dismissed from the Graduate School by the Graduate Dean upon recommendation of the director of the student's graduate program. A student may appeal such action under the provisions described below.

Graduate Academic Requirements

Academic requirements for Master's degrees and Doctoral degrees are detailed below; these are minimum requirements. Additional conditions set by individual departments will be found in the description of that department. Any department may make further regulations that are not inconsistent with the general rules.

Master's Degree Minimum Degree Requirements

The minimum requirements of graduate work for a Master's degree may be fulfilled by following either Plan I or Plan II below.

Plan I (thesis)

- 30 semester hours, including 4-6 hours of thesis credit
- At least 24 semester hours must be at the graduate level
- File application for admission to candidacy for degree

Plan II (non-thesis)

- 30 semester hours
- At least 24 semester hours must be at the graduate level (Some interdisciplinary programs may require fewer graduate level units.)
- File application for admission to candidacy for degree

A candidate for the Master's degree may be allowed to select Plan I or Plan II only upon the recommendation of the department concerned. Some graduate programs criteria vary from the options listed above. Students should consult their graduate program for more information.

Master's Thesis Requirements

Every candidate pursuing a Master's degree under Plan I (thesis option) is required to write a thesis, which may be of a research, expository, critical or creative type. Each thesis presented in partial fulfillment of the requirements for a Master's degree must satisfy the specifications of the UCCS Thesis and Dissertation Manual, and shall represent 4-6 semester credit hours of work. The student may register for any specific number of hours in any semester of residence. The final grade will be withheld until the thesis is completed. If the thesis is not completed at the end of the term in which the student is so registered, an in progress grade (IP) will be reported.

Thesis Advisory Committee

A thesis advisory committee must be established for each

student pursuing a Master's degree under Plan I (thesis option). This committee will consist of the thesis advisor, and at least two other members of the graduate faculty, possibly including a member from an allied program. Upon the recommendation of the thesis advisor, the committee is appointed by the program director with the approval of the Graduate Dean.

The thesis must be signed by the student's thesis advisory committee. Two formally approved copies of the thesis must be filed in the Library by the published deadline date.

Thesis Defense

After the thesis has been accepted by the student's thesis advisor, a thesis defense will be administered by the thesis advisory committee. A majority of the committee must vote affirmatively for the student to pass. A student who fails the thesis defense may not attempt it again until at least two months have elapsed. A student may re-defend only once.

Comprehensive Examination

This examination is administered by a committee of at least three graduate faculty appointed by the program director. A majority of the examination committee must vote affirmatively for the student to pass. A student who fails the examination may not attempt it again until at least two months have elapsed. The student may retake the examination only once.

Master's Degree Examinations

Most Master's degree programs require a comprehensive examination or a thesis defense (see above) after the other requirements for the degree have been substantially completed. A student must be registered at the time in which the comprehensive examination or thesis defense is held.

Admission to Candidacy – Master's Degree

Each student pursuing a Master's degree should file an Application for Admission to Candidacy in the office of the Graduate Dean during the first five weeks of the semester of intended graduation. This application will certify that all requirements for the degree have been met, or are in progress.

Although the work for advanced degrees is specified partly in terms of credit hours, an advanced degree will not be conferred merely for the completion of a specified period of residence and the passing of a given number of courses. A student should not expect to get from formal courses all the training, knowledge, and grasp of ideas necessary to meet the requirements for an advanced degree. The student regularly admitted to the Graduate School and later accepted as a candidate for a Master's degree will be recommended for the degree when all requirements have been met.

Time Limits – Master's Degree

Although students are normally expected to complete a Master's degree in one to three years, Master's degree students have six years from the date of the start of course work to complete all degree requirements (which includes filing the thesis with the Kraemer Family Library if Plan I is followed). A student who fails to complete the degree in this six-year period must file a petition for extension with the Graduate Dean. The petition, giving reasons why the student should be allowed to continue in the program, must be endorsed by the program director.

The program director must approve applying any course to the degree that was taken more than six years prior to the semester of graduation, and all such courses must be validated by special examination.

Doctoral Degree Minimum Requirements

General Requirements (Check with Program of Interest)

- 75 semester hours of graduate level credit, including 30 units of dissertation credit
- Each doctoral program shall determine how many credits from an earned Master's degree may be included in this total
- File application for admission to candidacy for degree

Doctoral Dissertation

Every candidate pursuing a doctoral degree is required to write a dissertation based upon original investigation and showing mature scholarship and critical judgment, as well as familiarity with tools and methods of research. The subject must be approved by the student's program director. Each dissertation presented in partial fulfillment of the requirements for a doctoral degree must satisfy the specifications of the UCCS Thesis and Dissertation Manual. The dissertation shall represent 30 semester credit hours of work for PhD candidates.

Advisory Committee

A dissertation advisory committee shall consist of five members of the graduate faculty, including one member of an allied department. One of the five members may be from another institution, provided the faculty member has been granted associate membership on the graduate faculty. Upon the recommendation of the dissertation advisor, the committee is appointed by the program director with the approval of the Graduate Dean.

The dissertation must be signed by the student's dissertation advisory committee. Two formally approved copies of the dissertation must be filed in the Library by the published deadline date.

Doctoral Degree Examinations

Each doctoral program will require one or more of the following types of examinations. A student must be registered at the time any of these examinations are taken. Successful completion of either a comprehensive examination or a specialty examination must precede advancement to candidacy.

Preliminary Examination

An examination to ensure that a student is qualified for doctoral study.

Comprehensive Examination
An examination in the field of concentration and related fields. This examination may be written or oral or both, and will test the student's mastery of a broad field of knowledge, not merely the formal coursework which has been completed. The comprehensive examination shall be conducted by an examining board of at least three members appointed by the program director.

Specialty Examination
An examination in a specific area of the general field of concentration. This examination may be written or oral or both, and will test the student's mastery of a single subject that may well go beyond formal coursework that has been completed. The specialty examination shall be conducted by an examining board of at least three members appointed by the program director.

Dissertation Proposal Examination
An examination to determine the preparedness of the student and the appropriateness of the topic, prior to commencing work on the dissertation.

Dissertation Defense
After the dissertation has been accepted by the student's dissertation advisor, a final examination of the dissertation and related topics will be conducted by the Dissertation Advisory Committee. The examination is open to anyone who wishes to attend. A successful candidate must receive the affirmative vote of a majority of the members of the dissertation committee. In case of failure, the examination may be attempted once more after a period of time determined by the committee.

A student must be registered for at least 5 dissertation credit hours during the semester in which the dissertation defense is held. The Graduate School must be notified of the dissertation defense at least two weeks in advance of the scheduled date of the defense, which must be no later than 18 days before the final day of the semester of graduation.

Doctoral Dissertation Credit Hour Requirements

- A doctoral student may take no more than one half of the total number of dissertation credit hours required for the degree prior to or during the semester in which the comprehensive examination is passed.
- Following successful completion of the doctoral comprehensive examination, a student must register each fall and spring semester for five to ten semester units of dissertation credit, until the requirements for the degree are completed.
- A student may register for no more than ten dissertation credit hours in any semester, and for no more than seven credit hours during a summer semester.
- If, following the completion of the doctoral comprehensive examination, there is a semester during which a student will be using no university resources, the student may petition to register for a minimum of one unit of dissertation credit. Such a request must be approved by the program director.
- A student must be registered for at least 5 dissertation hours during the semester (or summer session) in which the dissertation defense is held.

Admission to Candidacy – Doctoral Degree
A doctoral student who wishes to become a candidate for a degree must file an Application for Admission to Candidacy in the Office of the Graduate Dean during the first five weeks of the semester of intended graduation. This will certify that all requirements for the degree have been met or are in progress. Admission to candidacy will be granted only to students who have completed a significant fraction of the required course work, and have passed the comprehensive examination and language requirement (if any).

Time Limits – Doctoral Degree
Doctoral students are normally expected to complete all degree requirements within seven years from the date of the start of coursework in the doctoral program. A student who fails to complete the degree in this seven-year period must file a petition for extension with the Graduate Dean. The petition, giving reasons why the student should be allowed to continue in the program, must be endorsed by the program director or by three members of student's dissertation advisory committee.

If the Graduate Dean approves, the student may continue studies for one additional year. If the Graduate Dean does not approve, with the concurrence of the program director, the student may be dismissed from the program. If the Graduate Dean and the program director do not agree on whether a student should continue, the Graduate School Executive Committee shall make the final decision.

Graduate Student Appeals

Student Appeal Procedures

The procedures for a student appeal to the Graduate Dean and the Graduate School Executive Committee are as follows:

- An appeal will be officially accepted from a student only after it has been determined that the student has exhausted the appeals process in effect in the department.
- If a resolution to the problem identified in the student's appeal cannot be reached on the department or unit level, the student may submit a written appeal to the Dean of the Graduate School. The written appeal must describe in detail the basis in fact for the opinion that the student has been treated unfairly and must describe actions taken to resolve the problem at the departmental level.
- Upon receipt of a written appeal from a student,

the Dean of the Graduate School will contact the appropriate departmental officer to get a response to the questions or objections raised by the student. In some cases, a written response from the department may be requested.

- The response and appeal is then sent to the Student Affairs Subcommittee of the Graduate School Executive Committee. This committee acts in an advisory capacity to the Graduate Dean and will forward their findings and recommendations to the Dean.
- The Graduate Dean will make a decision in the case. This decision may be appealed by either party to the dispute to the full Graduate School Executive Committee, but only if the decision of the Dean is in disagreement with the recommendation of the Student Affairs Subcommittee.

Final Responsibility

All appeals regarding course grades shall follow the procedures established by the school or college in which the course was taken. Final authority on appeals submitted by graduate students concerning actions (other than grading) taken by faculty members, program directors, the Graduate Dean, or other administrative officials rests with the Graduate School Executive Committee.

College of Business and Administration

Venkateshwar Reddy, Dean
Dwire Hall, room 303
Telephone: (719) 262-3113
Fax: (719) 262-3100
business.uccs.edu

The College of Business and Administration and the Graduate School of Business Administration was established in 1965. The College serves the needs of the Pikes Peak Region and Southern Colorado for competent and responsible managers, for continued education of those already in such positions, and for research. It also serves the needs for business education throughout the world with its Distance MBA program.

The College works closely with the local business community in the professional development of its students. The Business Diversity Union (BDU) assists the College in the recruitment and retention of ethnic minority students and in promoting a community that values individual differences and perspectives.

Mission

The mission of the College of Business and Administration is to build futures. To achieve this mission, we will:

- Provide an innovative, learner-focused education of superior quality and value that integrates theory and practice
- Cultivate strong partnerships
- Create and disseminate knowledge through excellent teaching and nationally recognized publications
- Motivate students, faculty and staff to achieve their potentials; be principled professionals; and positively impact the organizations and communities in which they work.

Vision

To be the college of choice for those who are committed to excellence in education, scholarship and life-long learning in the markets we serve.

Accreditation

Both the undergraduate and the graduate business degree programs are fully accredited by AACSB International – The Association to Advance Collegiate Schools of Business.

Faculty

Dean and Finance Professor: Venkateshwar Reddy. ***Associate Dean and Professor:*** Eric Olson. ***Professors:*** Alan Davis, Richard Discenza, Jeffery Ferguson, Donald Gardner, Gary Klein, Robert Knapp, Paul Miller, John Milliman, Donald Warrick, Thomas Zwirlein. ***Associate Professors:*** Charles Beck, Margaret Beranek, Andrew Czaplewski, Rebecca Duray, Thomas Gruen, Morgan Shepherd, Kirkland Wilcox. ***Assistant Professors:*** Monique French, Ann Hickey. ***Associate Research Professor:*** Fred Crowley. ***Instructors:*** Bill Ayen, Gordon Stringer, Sheri Trumpfheller, Sally von Breton, and Sam White. ***Emeritus Professors:*** James Rothe, Robert Keeley, Robert Zawacki, Fred McFadden, Edward Oppermann

Business Academic Advising

Undergraduate: Student Success Center
Main Hall, 2nd Floor
P.O. Box 7150
Colorado Springs, CO 80933-7150
(719) 262-3260 or (719) 262-3630
1-800-990-8227 ext 3630 or 3260
FAX (719) 262-3645
Email: success@uccs.edu

Graduate: MBA Academic Advising
Graduate School of Business Administration
Dwire Hall 333
1420 Austin Bluffs Parkway
Colorado Springs, CO 80918
(719) 262-3408 1-800-990-8227, ext 3408
Fax: (719) 262-3100
Email: mba@uccs.edu

College of Business Career and Placement Center
Dwire Hall 301

The Career and Placement Center for undergraduate and graduate business students assists students searching for business internships and for part-time and full-time positions; it also provides assistance with resume writing and career direction. The Center also can introduce students to My Interface. This web site links undergrads, MBA students and alumni to area and national employers who are looking for qualified employees to fill open positions. For appointments, email business@uccs.edu or call (719) 262-3587. Visit the Career and Placement website at business.uccs.edu, go to Current Student, then Career and Placement Center.

Research Centers

The Center for Entrepreneurship

The Center for Entrepreneurship is an innovative educational environment established by the College of Business and Administration and based upon the student learning environment paradigm. The Center for Entrepreneurship is tasked with exposing students at UCCS to the ideas and concepts behind entrepreneurial activities. The Center's primary mission is to provide a real-world learning lab by creating a company-like environment wherein students can apply the concepts studied in their business curriculum.

Academic Programs of Study

Areas of Emphasis	Bachelor of Science (BS-four years) Bachelor of Innovation (BI-four years)	Options for Minor Studies	Certificate Programs	Masters of Business Administration (MBA); (MBA Distance)
Accounting	BS	For business majors; For non-business majors	With BS in Business	MBA
Business Administration	BS; BI	For non-business majors	With BA/BS in other discipline	-
Finance	BS	For business majors: For non-business majors	-	MBA; MBA (distance)
General Business	BS	-	-	MBA; MBA (distance)
Health Care Administration	-	-	-	MBA (distance)
Homeland Defense	-	-	-	MBA; MBA (distance)
Human Resources Management	BS	For business majors: For non-business majors	With BA/BS	-
Information Systems	BS	For business majors: For non-business majors	With BS in Business	MBA (distance)
International Busienss	BS	For business majors: For non-business majors	-	MBA MBA (distance)
Management	-	-	-	MBA (distance)
Marketing	BS	For business majors	With BS in Business	MBA
Marketing/Professional Golf Management	BS	-	-	-
Operations Mangement	-	-	-	MBA
Organizational Management	BS	For business majors: For non-business majors	With BS in Business: With BA/BS in other discipline	-
Project Management	-	-	-	MBA (distance)
Services Management	BS	For business majors	With BS in Business	MBA
Technology Mangement	-	-	-	MBA (distance)
Applied Management	-	For non-business majors	-	-
Business Mangement for Sustainable Development	-	For non-business majors	-	-
MBA Prep	-	For non-business majors	-	-

International Small Business Development Center

The College of Business and Administration has been named as the host of the International Small Business Development Center for the State of Colorado. Services include counseling, training programs, and web-based services. The Center will have a special emphasis on Spanish language material to assist companies interested in doing business with NAFTA-related industries.

Small Business Development Center

The mission of the El Paso and Teller County Subcenter of the Small Business Development Center (SBDC) is to enhance economic development through assisting small businesses in reaching their growth and profit potential. Sponsored jointly by the U.S. Small Business Administration, the State of Colorado, UCCS, and Pikes Peak Community College, the SBDC offers seminars, workshops, and one-on-one counseling for startup and ongoing small businesses in the region.

Southern Colorado Economic Forum

The Forum provides businesses in El Paso county with economic and quality of life information which is used to assess local economic conditions. The objective of the Economic Forum is to provide timely and useful information focused specifically on the Pikes Peak Region. This information serves as a community progress report, identifying areas where the local community excels as well as areas where it faces challenges.

College of Business Learning Outcomes

Business, BS – Bachelor of Science

- During the freshman and sophomore years, students will gain an understanding of foundation knowledge in accounting, behavioral science, economics, mathematics and statistics.
- Students will develop an understanding of perspectives on ethical and global issues, and political, social, technological, and diversity issues as they relate to the business environment.
- Students will develop competency in oral and written communication.
- Students will develop competency in quantitative, analytical and reasoning skills.
- Students will gain basic business knowledge and experience required to function adequately in a business-related career.

Business, MBA – Masters of Business Administration

- Students will be able to integrate state-of-the-art theory and practice in the business disciplines and gain an integrated perspective of what it takes to make organizations successful.
- Students will gain good process skills such as leadership, management, people and team skills and good technical and analytical skills in their chosen area of emphasis.
- The MBA Program will be structured and delivered in a way that meets the needs of our students.

COB General Academic Policies and Graduation Requirements

The following academic policies are applicable to all students enrolled in the College of Business and Administration or the Graduate School of Business Administration. All students are responsible for knowing and following the provisions set forth in this *Bulletin* and in the *Schedule of Courses*. Any questions concerning these provisions are to be directed to he Student Success Center (undergraduate inquiries) or the College of Business and Administration MBA Advising Office (graduate inquiries). It is the responsibility of the student to know and observe program requirements and deadlines.

In an effort to incorporate new business techniques and paradigms into our business programs, as well as to meet the needs of our students on a timely basis, we periodically make changes to our curriculum. These changes may not be reflected in this *Bulletin*. We therefore encourage you to visit our web site at business.uccs.edu.

A student's business program/catalog year is the one in effect at the time the student is admitted to the UCCS College of Business and Administration or to LAS, Business Intent. Transfer students from Colorado Community Colleges may follow the graduation requirements in effect during the academic year the student began their study at the community college if they complete the AA Business Option (restrictions apply, please see UCCS Student Success Center). All others are evaluated on a case-by-case basis. Students transferring from both two- and four-year public higher education institutions of Colorado should consult the articulation agreements and transfer guides which are in effect between the College of Business and these institutions.

The academic policies and regulations stated herein are in effect at the time this *Bulletin* is printed but may be subject to change. Any questions should be directed to the Student Success Center or the MBA Advising Office.

Academic Progress

Grading Policies

Failed Courses

Although failed courses may be repeated, the earned F will remain on the student's transcript and will be included in his/her grade point average.

Grade Changes

Final grades as reported by instructors are to be considered permanent and final. Grade changes must be approved by the associate dean or the dean. Please visit the website for the grade appeal policy: http:// business.uccs.edu/html/policies.

Incomplete Grades

The only incomplete grade authorized by the College of Business is I/F. I/F's are appropriate for students who have completed a substantial portion of the semester but who then become ill or encounter other documentable extenuating circumstances beyond their control that prevent them from completing their coursework.

Instructors have the sole discretion to award a grade of I/F. The purpose of an I/F is to allow students to make up missing work or exams; therefore, a student must meet with his/her instructor to develop a plan for completion. Students may not register for nor attend any part of the course a second time. The student is responsible to ensure that incomplete grades are remedied at least four weeks prior to his/her scheduled graduation date. To resolve an I/F, the student must complete the specified work by the specified deadline. In all cases where an I/F is not remedied, the I/F grade automatically converts to an F on the student's permanent record one calendar year after award of the /IF.

No Credit

The College will not approve business courses for no credit.

Pass/Fail Course Registration

With the exception of BUAD 301, 302, 303, internships numbered 496 and 696, and certain experimental courses,

students in the College of Business and Administration may not use courses taken on a pass/fail basis to satisfy required business, required non-business, or business elective courses. Only open electives may be taken on a pass/fail basis and applied towards the undergraduate degree. No pass/fail courses may be taken and applied toward the Graduate degree program. Pass/fail determination must be made within the first two weeks of the semester and is irreversible.

Administrative Drop

Through the semester census date, individual faculty or the dean may initiate the process to drop students who do not have the proper course prerequisites and/or class standing for courses. Students who fail to meet written class attendance policies may be administratively dropped. Business faculty may also drop students who do not attend the first class without prior permission from the instructor.

Attendance Policy

It is the expectation of the College of Business and Administration that students will attend all classes. However, classroom attendance policy is left to the discretion of the faculty member. Students are responsible for knowing the attendance policies of individual instructors. Business faculty may drop students who do not attend the first class without prior permission from the instructor. This policy allows the adding of waitlisted students who attend the first class. Students registering late for classes must obtain approval from the faculty member prior to enrolling.

Graduation Requirements

Degree Credit: To be considered for the degree, students must report all academic credentials to the Office of Admissions and Records, and credentials must appear on the student's official University of Colorado transcript. Credit listed on these documents is then evaluated by the appropriate College of Business and Administration advising office for degree applicability.

Senior Audit: By the beginning of the first semester of their senior year, students must schedule a senior audit with the business academic advisor to determine status with respect to graduation requirements. At this time, students are required to file a diploma card giving notice of intention to complete graduation requirements. Failure to complete the senior audit in a timely manner may delay a student's graduation.

Commencement: Students seeking to participate in commencement and other academic ceremonies will need to complete ALL academic requirements in advance. Participation in academic ceremonies that recognize or honor students for the completion of an academic program or specific academic accomplishment is based on the understanding that all requirements have been completed. Every effort will be made to determine eligibility in advance, and only students who have met requirements will be permitted to participate.

Independent Study

Junior, senior, and graduate business students desiring to work beyond regular business course coverage may take variable credit courses (1–3 semester hours) under the direction of a full-time member of the faculty who approves the project. The student must also have the prior approval of the dean. Information and request forms are available in the advising offices.

To receive degree credit for independent study and experimental studies courses in non-business areas, students must obtain the approval of the College of Business and Administration dean prior to registering for the course. The College of Business and Administration does not grant credit for work experience or cooperative education programs. Tutoring of lower division courses is considered a form of work experience, and is not accepted for academic credit.

A maximum of 6 hours of pre-approved independent study credit may be applied to the undergraduate degree or MBA degree.

Internships

The College of Business and Administration offers the opportunity for business degree students, undergraduate and graduate, to obtain internships both for credit and not for credit. To register for an undergraduate internship for academic credit, students must be in good academic standing in their junior or senior year, with a 2.5 Business GPA, 2.5 Emphasis GPA, and a 2.5 overall GPA. Students must have completed at least one upper division course in the area to which they are applying for credit. All skills courses must be completed in order to qualify for an internship. Internships are 1-3 credit hours, pass/fail only, and at the undergraduate level may be used as business elective credit or as area of emphasis credit, if so specified in this *Bulletin*. At the graduate level, internships may be used as elective credit or may be approved for credit toward an area of emphasis. Internships are approved through an application process which can be obtained through the Business Career and Placement center. Students must apply for credit during the semester in which the internship is being completed. A maximum of 6 credit hours of internship may be applied to a business degree. Information on business internships is available at the College of Business Career and Placement Center. See further info under Business Advising.

Transfer Credit

The College of Business reserves the right to disallow any credit it determines not to be appropriate. Only credit from regionally accredited institutions will be considered for transfer to the undergraduate degree program, and from the AACSB accredited graduate programs to the MBA degree. See the following Undergraduate Degree Program and MBA Program sections for more detail.

COB Undergraduate Program Information

Undergraduate Admission Procedures

Freshmen

Students who rank in the upper 40th percentile of their high school graduating class and who satisfy the suggested high school units and the entrance test score requirements are assured admission. Test scores for assured admission are as follows:

- for the SAT, a combined score of 1080 or above
- for the ACT, a composite score of 24 or above, with an English minimum score of 24 and a math minimum score of 22

Students not meeting the above standards will be considered on the basis of a combination of several factors including class rank and performance in college prep classes.

Suggested High School Course Units:

• English	4 (one year of speech/debate and two years of composition)
• Mathematics	3 (including at least two years of algebra and one year of geometry)
• Natural science	3 (laboratory science courses)
• Social Science	2
• Foreign language	2
• Academic electives	1 (additional courses in English, foreign language, mathematics, natural or social sciences; not to include business courses)
• **Total**	**15**

Students with strong mathematics and verbal skills are encouraged to apply even though their test scores and/or class rank may vary from the indicated admissions criteria.

Intra-university Transfer

Students who wish to transfer to the College of Business from another degree program at UCCS must submit an application in the Student Success Center upon completion of at least 15 semester hours of graded work on campus. Grades earned in freshman English, math and other skills courses will be evaluated, as will cumulative GPA. Students must earn a minimum cumulative GPA of 2.5 for admission; those with a GPA between 2.0 and 2.49 will be reviewed by the Business Admissions committee.

A minimum of 30 hours of business course work must be completed after admission to the College of Business, including 18-21 hours in the area of emphasis and BUAD 400 & 450. Coursework taken prior to admission to the College will not be accepted toward area of emphasis requirements, nor are pre-Business (PRBU) students in the College of Letters, Arts & Sciences (LAS) permitted to enroll in upper-division, Business courses*. Non-degree students may enroll in upper division courses only with the permission of the Director of Undergraduate Programs for the College of Business.

* Furthermore, declaration as a PRBU major does not guarantee transfer into the College of Business or application of any business credits earned while a LAS student.

Transfer Students

Students may transfer to the College of Business and Administration from another institution. Transfer students must demonstrate proficiency in English and mathematics. Students must have earned a cumulative GPA of at least 2.5 to help assure admission. Students with a cumulative GPA between 2.0 and 2.5 will require the Admissions Committee approval before being admitted into the College.

Applicants with less than 12 semester hours of college level work will be required to submit a high school transcript and SAT or ACT test scores. Applicants with 30 semester hours or more of college level work may or may not be required to submit high school transcripts and/or test scores. Additional credentials may be required in individual cases. The College of Business and Administration adheres to the University Minimum Academic Preparation Standards that are listed in the General Information section of the *Bulletin*. This includes Freshmen, Transfer and Intra-university transfer students.

The College of Business and Administration does not allow students who already possess a Bachelor's degree in a business area to pursue a second Bachelor's degree in Business. Students who already have a Bachelor's degree in Business are encouraged to inquire about admission criteria for the College of Business and Administration undergraduate and graduate certificate programs, and MBA programs.

Undergraduate Academic Policies

Course Load

The normal scholastic load for a full-time undergraduate business student is 15 semester hours, with 18 hours the maximum during the fall/spring semesters. A maximum of 12 hours may be taken in the 8 week summer session, and 6 hours in the 4-week summer term. Course overload forms, signed by your advisor, will be required to take courses in excess of the stated maximum.

Registration and Enrollment Status

Course prerequisites as listed for individual courses in the Course Descriptions section of this *Bulletin* are enforced for all students, including non-business students. In addition, it is a requirement of business degree students that the Skills Courses listed in this *Bulletin* be completed prior to taking 400 level business courses. Non-business students who register for upper division business courses are advised that the depth and breadth of instruction in these courses is geared to business students who have completed the Skills Courses. Priority for registration for business classes is given to business degree students.

Students enrolled in one section of a business course while attending a different section will receive a final grade of F for nonattendance. Students attending classes for which they are not enrolled will not be added after the add period is over.

Undergraduate Standards of Performance

Students are held to basic standards of performance established for their classes with respect to attendance, active participation in coursework, promptness in completion of assignments, correct English usage, both in writing and speech, accuracy in calculations, and general quality of scholastic workmanship. In general, examinations are required in all courses for all students, including seniors.

To be in good standing, a minimum scholastic cumulative grade point average (GPA) of 2.0 is required for all course work attempted, a 2.0 GPA for all business courses attempted, and a 2.0 GPA for all Area of Emphasis courses, with no grades below a C-. These grade point averages apply to work taken at all University of Colorado (CU GPA) campuses. Remedial course work is not included in the overall average. Students are responsible for being aware of their academic status at all times; late posting of grades and/or late notification by the College does not waive this responsibility.

Honors Recognition

Latin Honors

Upon recommendation of the faculty, undergraduate students who demonstrate superior scholarship are given special recognition at graduation. To qualify for Latin Honors, students must have a minimum of 60 hours at the University of Colorado. Students must achieve an overall CU grade point average of 3.7 and a grade point average of 3.9 in all business courses taken at the University of Colorado to be considered for summa cum laude. Those who achieve an overall CU grade point average of 3.5 and a grade-point average of 3.7 in all business courses taken at the University of Colorado will be considered for magna cum laude. An overall CU grade point average of 3.3 and a business course average of 3.5 qualify a student to be considered for cum laude.

President and Dean's List Criteria

To qualify for semester honors, students must be enrolled in a minimum of 12 graded hours during a regular semester (Fall or Spring). Students who achieve a 3.75–3.99 grade point average will be placed on the Dean's List. Students who achieve a 4.0 grade point average will be placed on the President's List.

Students are held to basic standards of performance established for their classes with respect to attendance, active participation in course work, promptness in completion of assignments, correct English usage both in writing and speech, accuracy in calculations, and general quality of scholastic workmanship. In general, examinations are required in all courses for all students, including seniors.

The College of Business rules governing probation and suspension are as follows:

Probation

- Any College of Business student who has attempted 12 or more hours at any CU campus, or has attempted 12 or more hours in the College of Business, shall be immediately placed on probation when their respective GPA falls below 2.0.
- Students may remain on probation so long as they achieve a minimum CU and Business GPA of 2.25 each semester and obtain no grades below a C-. During their entire academic career in the College of Business a student may be on probation for a maximum of four semesters; probationary terms are not necessarily consecutive (summer shall be considered a semester only if any coursework is attempted). Students on probation will have their registration blocked for subsequent semesters until grades are posted and minimum standards (see above) are achieved.
- Failure to meet probationary provisions will result in **Indefinite Suspension**.
- A student may be removed from probation when the cumulative CU GPA and the Business GPA have been raised to 2.0 or above.

Suspension

- Students placed on Indefinite Suspension are not eligible to enroll in College of Business courses at any University of Colorado campus for one calendar year from the time of their **indefinite suspension**.
- Any student earning all failing grades (or "no academic credit" if coursework is attempted) for any semester will be placed on **Indefinite Suspension**.
- A student who has been under indefinite suspension for one calendar year may apply for readmission to the College of Business. If readmitted, that readmission will be on a probationary status. After being readmitted under such probationary status, students who fail to comply with the requirements of their probation will be subject to **Permanent Suspension**.
- Any student who is placed on suspension more than once will be placed on **Permanent Suspension** from the College of Business and may not attend any campus of the University of Colorado as a business student.
- Students who have been on **Indefinite Suspension** at any time by the College of Business will automatically be placed on **Permanent Suspension** if their cumulative CU or Business GPA again falls below 2.0.
- All suspended College of Business students who transfer into another degree program will not be eligible to enroll in ANY courses offered by the College of Business and will be subject to administrative drops.

Suspended students who transfer into another degree program of the University are rarely readmitted to the College of Business, and then only by special consideration through petition to the College.

Undergraduate Transfer Credit

Business Courses

The College will limit transfer credit for business courses taken at a lower division level to such courses as the College offers at that level. Transfer students must be aware of the upper division minimum credit requirement of 45 semester hours for the Business degree.

Transfer students must take a minimum of 30 semester hours of business courses including the six area of emphasis courses and BUAD 400 and 450 in residency at UCCS after admission to the undergraduate degree program of the College of Business and Administration.

A maximum of 64 semester hours of credit may be accepted from a community or junior college. Actual equivalent courses usually may be substituted for required courses. However, students must verify with the College of Business and Administration advising office that courses are equivalent. Students may be asked to provide additional information on courses completed at other institutions.

Information systems courses older than 5 years will not transfer toward any Bachelor's of Science Business degree, except as open electives.

Current business students who wish to take course work at another institution or another campus of the University of Colorado and apply the work toward the degree must have the prior approval of the dean.

Student transfer agreements between the UCCS College of Business and Administration and the two-year public institutions in the Colorado system of higher education have been established and may be accessed through the advising offices of each institution. The College adheres to the Business Statewide Articulation Agreement. This agreement varies depending on the student's specific catalog year.

Special Sources of Credit

The College reserves the right to accept or reject all special sources of credit that do not have prior approval of the dean. See Model Degree Program Curriculum Notes for a discussion of elective credit for the business degree.

Correspondence Credit

Area of emphasis courses may not be taken by correspondence. All correspondence courses are evaluated to determine their acceptability. Approval for degree credit is required prior to registration.

Credit by Examination

Please see the General Information section of this *Bulletin* for information about Advanced Placement, International Baccalaureate, and College Level Examination Program (CLEP) credit. Generally, CLEP credit is appropriate only for (a) lower division non-business requirements and (b) non-business electives. A maximum of 6 hours of credit in any one course area is allowed. CLEP may not be used in course areas where credit has already been allowed. General examinations are not acceptable. Credit for CLEP must have prior approval in writing from the business advisor.

ROTC Credit

Students who complete the ROTC program may apply a maximum of 15 hours of advanced ROTC credit toward Area Elective requirements for the business degree. Students must be enrolled as official ROTC students in order to receive degree credit for ROTC courses. The ROTC advisor can provide more detailed information.

Undergraduate Academic Requirements for The Bachelor of Science (BS) – Business

The student bears primary responsibility for the fulfillment of degree requirements. Any questions that a student might have should be directed to the Student Success Center. The College reserves the right to disallow any credit that is not appropriate academic degree credit. Students approaching graduation must complete a graduation audit the semester before their final semester.

General Requirements

Total Credits. A minimum of 120 semester hours of appropriate academic credit as follows:

• Required business hours	39
• Required non-business hours	40
• Area or Business electives	9-12
• Area of emphasis	18–21
• Required general electives	11
• **Total**	**120**

Residency

Candidates for the Bachelor of Science (Business) must complete a minimum of 30 credits of business course work (to include the 18-21 credits in the area of emphasis and BUAD 400 & 450) after the student has been accepted into the College of Business and Administration.

A minimum of 45 credits must be upper-division (300 or 400-level) course work.

A maximum of 64 credit hours of appropriate academic credit taken at a junior or community college may be applied toward the undergraduate degree in business.

The College reserves the right to disallow any credit that is not appropriate academic degree credit.

Computer Literacy Requirement

The College of Business and Administration requires all students complete a computer literacy requirement prior to enrolling in some courses (ACCT 201, QUAN 201) through completion of any of the following options:

- Pass Computer Competency test
- Complete INFS 110 or equivalent computer course

- Transfer equivalent of basic computer course

If a course is taken in place of the exam, credit will either apply toward Area of Business elective (business course) or Open elective (non-business course). Contact the Business Advisor in the Student Success Center for schedule and details.

Model Degree Program for Business BS

The following four-year plan lists all the specific course requirements for the bachelor of science (business BS) degree. Equivalent courses taken at other institutions prior to admission to this degree program may satisfy these requirements, subject to College of Business and Administration policies regarding the transfer of academic credit. The order in which these courses are taken may vary with course availability. However, normal degree progress in the College of Business and Administration requires that students complete the degree in a freshman, sophomore, junior, senior sequence. All courses listed are degree requirements. Students are responsible for completing all course prerequisites. *Course prerequisite and class standing requirements are enforced by the College of Business and Administration.* ***(Notes to plan are explained in the next section.)***

Freshman Year

ECON 101 Introduction to Microeconomics 3
ECON 202 Introduction to Macroeconomics 3
ENGL 131 Rhetoric & Writing 1 (Note 1) 3
MATH 104 College Algebra or 111 Linear Algebra 3
MATH 112 Calculus for Business & Economics 3
Humanities Elective (Note 2) 3
Area or Business Elective (Note 7) 3
Open Elective (Note 6) 3
Social Science Elective 3
Approved Elective 3

Sophomore Year

ACCT 201 Financial Accounting 3
ACCT 202 Managerial Accounting 3
BLAW 200 Business Law 3
BUAD 300 Integrated Skills for Management (Note 4) . . 3
COMM 201 Comm in Workplace
or 210 Public Speaking 3
QUAN 201 Business Statistics 3
QUAN 202 Process & Statistics-Based Decisions 3
Approved Elective (Note 6) 6
Natural Science with Lab (Note 3) 4

Junior Year

FNCE 305 Basic Finance 3
INFS 300 Intro to Mgmt Info Systems 3
MKTG 300 Principles of Marketing 3
OPTM 300 Fundamentals of Operations Mgmt 3
ORMG 330 Intro to Management & Organization 3
Business Area of Emphasis/Major (Note 5) 6
Non-Freshman Communication Elective (Note 1) 3
Open Elective (Note 6) 3
Area of Business Elective (Note 7) 3

Senior Year

BUAD 400 Business, Government,
Law & Society (Note 8) 3
BUAD 450 Cases & Concepts in
Business Policy (Note 8) 3
Business Area of Emphasis/Major (Note 5) 12
Area of Business Elective (Note 7) 6
Open Elective (Note 6) 5
Minimum to Graduate 120

Required Curriculum Notes:

1. Writing and Communication Requirement

To fulfill the 6 hour composition requirement, students take ENGL 131 in their freshman year and may choose from ENGL 307, Business and Administrative Writing; ENGL 309, Technical Writing and Presentation; or COMM 324, Business and Professional Communication, their junior year. Students also must complete a writing competency requirement by turning in an English portfolio or completing an additional upper-division writing course. Please consult the Writing Program, Columbine Hall 1041 or 1045 for more details on the writing competency requirement.

2. Humanities Electives

Three credit hours are required. A complete list of acceptable courses is available from the Student Success Center or College of Business and Administration. Courses must come from the approved list to apply as a Humanities elective.

3. Natural Science with Lab

Requirement is 4 credits. Students may apply additional natural science credit toward open or approved electives.

4. Business Skills Course - BUAD 300, Integrated Skills for Management

BUAD 300 should be taken during the second semester of the sophomore year. It is a required skills course for the College of Business Professional Program, requiring 45 hours of completed coursework to enroll.

5. Area of Emphasis Courses

18-21 hours required. Business students will select one of the following Professional Program Areas of Interest: Accounting, Business Administration, Finance, Human Resources Management, Information Systems, International Business, Marketing, Organizational Management, or Service Management. Students may also choose to obtain a double area of emphasis or a business minor. General Business is available to business students who do not meet the GPA requirements as they near graduation.

6. Open and Approved Electives

The business degree requires 17 hours of Open and Approved electives. Electives should be chosen carefully based upon the student's interests and objectives. The student will choose 6 hours from an approved list and will have 9 hours of open electives. These credits provide a means to

take elective courses geared toward expanding the breadth of their education to other topics pertinent to their course of study in business or to meet the College of Business computer literacy requirements by enrolling in INFS 110.

7. Area or Business Electives

The business degree requires 15 hours of Area or Business electives. Courses in this area can be used to fulfill a business topic that is taught at a level above the introductory level of the core classes. Students may also elect to utilize the Area or Business Electives for a minor in business or minors offered through the College of Letters, Arts and Sciences, Engineering or Nursing.

The following special sources of credit may be appropriate for area electives:

A maximum of 15 hours upper division ROTC credit if the student completes the ROTC program

A maximum of 2 hours of physical education activity, health, first aid and applied music can be used

The College of Business does not accept courses that are considered redundant to courses in the business curriculum. This includes, but is not limited to: CS 100, 103, and 104.

The above examples are not exhaustive, but are intended to provide guidelines. The College of Business and Administration reserves the right to disallow any credit that is not appropriate academic credit as determined by the College. Students should direct questions and obtain written approval from the Student Success Center prior to undertaking these classes.

8. BUAD 400 and 450

Registration in BUAD 400 and 450 is restricted to business seniors only.

BS, Business
Professional Program Areas of Emphasis

Each candidate for the Bachelor of Science-Business degree in the Professional Program must complete the prescribed courses in an area of emphasis comprising a minimum of 18 semester hours taken at UCCS.

A grade point average of 2.5 is required for the area of emphasis courses, with no grade below a C-; a 2.5 is required for all business courses; and a 2.0 is required overall. Students who graduate with area of emphasis and/or business grade point averages from 2.0 to 2.49 will graduate as General Business majors.

By completing extra courses, a student can earn a second area of emphasis. In order to earn a double area of emphasis, a student must fulfill all the requirements for both areas. If there are not at least 15 hours of unique courses in the areas, then the student cannot earn a double area of emphasis.

Accounting

The principal areas of study in accounting are financial accounting, managerial accounting and systems, taxation, and auditing. The emphasis is designed to prepare students for careers in public accounting, business and industry, and not-for-profit and governmental organizations.

Course work in accounting is intended to convey a comprehensive understanding of the theory and concepts that underlie accounting practice. Emphasis is placed on logical reasoning to enable students to solve problems in accounting and to make sound accounting policy decisions.

In addition to training in accounting, a thorough knowledge of the social, legal, and political environments is essential. Because solid communication skills are indispensable to the professional accountant, course work in English composition, report writing, and speech are highly recommended.

The undergraduate area of emphasis in accounting consists of a minimum of 18 semester hours beyond Accounting 201 and 202 plus 3 semester hours selected from a list of specified courses. The basic requirements for all accounting majors are as follows:

The Certified Public Accounting (CPA)Track

The Rules of the Colorado State Board of Accountancy (effective January 1, 2001), specify that students planning to take the Certified Public Accounting (CPA) exam must take 27 semester hours in accounting subjects in order to comply with the law in the State of Colorado and to be more fully prepared for the exam. These 27 semester hours normally include the following:

Required Courses

ACCT 201 Intro to Financial Accounting	3
ACCT 202 Intro to Managerial Accounting	3
ACCT 301 Intermediate Accounting I	3
ACCT 302 Intermediate Accounting II	3
ACCT 311 Cost Accounting	3
ACCT 461 Auditing (required by state law)	3
Accounting electives	9
Total	**27**

Recommended Electives

ACCT 401 Advanced Financial Accounting	3
ACCT 402 Financial Accounting Theory	3
ACCT 421 Individual Income Tax	3
ACCT 422 Corporate and Partnership Taxation	3
ACCT 441 Fund Accounting for Government and Nonprofit Organizations	3
ACCT 496 Internship in Accounting	3

In addition, the applicant for the CPA exam must have at least 24 semester hours in at least four other areas of business such as business law, finance, management, marketing, statistics, business communications, information systems, and ethics. No more than 6 semester hours may be taken in any area. Recommended courses that fit well with the accounting degree include:

FNCE 220 Investments & Personal Finance

FNCE 400 Advanced Corporate Finance

Students who are not planning to take the CPA exam are encouraged to select a specialty track. These tracks can be in either managerial accounting/systems or taxation. In order to specialize in one of these tracks, it is recommended that the accounting electives be selected as described:

Managerial/Systems Track

Required Courses

ACCT 201 Introduction to Financial Accounting	3
ACCT 202 Introduction to Managerial Accounting	3
ACCT 301 Intermediate Accounting I	3
ACCT 302 Intermediate Accounting II	3
ACCT 311 Cost Accounting	3
Accounting electives	12
Total	**27**

Recommended Electives (minimum of 12 hours from list below)

FNCE 400 Advanced Corporate Finance	3
ACCT 422 Corporate and Partnership Taxation	3
ACCT 431 Introduction to Accounting Systems	3
ACCT 441 Fund Accounting for Government and Nonprofit Organizations	3
ACCT 496 Internship in Accounting	3

Taxation Track

Required Courses and Recommended Electives

ACCT 496 — Internship in Accounting	3
FNCE 400 — Advanced Corporate Finance	3
ACCT 421 — Individual Income Tax	3
ACCT 422 — Corporate and Partnership Taxation	3
Accounting electives	12
Total	**24**

While it is permissible to take as many hours in accounting as the student desires, not more than 30 hours of accounting will be applied toward the total requirements for the undergraduate degree. Students should work closely with accounting faculty and the undergraduate business advisor in planning their accounting programs.

Graduate study in accounting is receiving increasing emphasis by professional organizations and employers. In Colorado, for example, individuals may be certified as CPAs with no experience in the profession if they have 30 semester hours of course work above the baccalaureate degree and a total of 45 hours of accounting and related courses in their combined undergraduate and graduate studies. Students meeting admission requirements might consider continuing their education at the graduate level.

In addition, many states now require a minimum of 150 semester hours to be eligible to take the CPA exam. Students who plan to move from Colorado should check the specific requirements of the state to which they anticipate moving for specific requirements.

Business Administration

The Business Administration area of emphasis is part of the Professional Program. It allows the student to select 18 semester hours of upper division business course work based on the individual's particular interests and objectives. Courses are upper division and must be selected from at least two different subject areas to provide a solid business foundation. Course work selected for the area of emphasis must be pre-approved via a contract. Please see the business advisor in the Student Success Center for a contract.

Finance

Finance encompasses both the science and the art of managing money and investments. The finance curriculum is divided into three primary areas: financial management, financial markets and institutions, and investments. The study of finance provides students with an understanding of numerous financial theories such as the relation between risk and return, the factors that determine asset values, and strategies for minimizing the risk exposure of both corporations and investors. An understanding of these theories helps students develop the ability to make sound and practical business and personal investment decisions. The importance of finance in the economy and the functions and purposes of monetary systems, credit, prices, money markets, and financial institutions are stressed throughout the area of emphasis. Students are trained to think logically regarding financial problems and to formulate sound financial decisions, policies, and practices.

The finance emphasis prepares students for jobs in a corporate industrial setting or in the financial services industry. Students who study corporate finance prepare for careers managing corporate assets. Specific jobs in the corporate setting can include cash and receivables management, capital budgeting decision-making, short-and long-term financial planning and analysis, risk analysis and management, and financing decisions. Financial services careers include positions in investment counseling, insurance, personal asset management and other financial planning careers.

To meet the 18 credit hours of upper division course work in the finance emphasis, students must complete the following required courses and one of the elective courses listed below.

Required Courses

FNCE 400 Advanced Corporate Finance	3
FNCE 410 Cases and Concepts in Finance	3
FNCE 420 Investment and Portfolio Management	3
FNCE 440 International Financial Management	3
FNCE 450 Money and Banking	3

And select one course from the following:

FNCE 430 Bank Management	3
FNCE 460 Financial Modeling	3
FNCE 470 Practicum and Research in Security Markets	3
FNCE 480 Entrepreneurial Finance	3
FNCE 496 Internship in Finance	3
ACCT 302 Intermediate Accounting II	3
ACCT 311 Cost Accounting	3
Total	**18**

Human Resources Management

The goal of the human resources management (HRMG) function in organizations is to develop and maintain effective relationships between employers and employees. HR managers achieve this in a number of ways – matching

people's skills to job requirements, developing fair compensation practices, appraising employees' performance levels, developing employees' skills and abilities through training and career planning, implementing productivity improvement programs, and many other activities. HR managers perform these roles ethically and legally, in an ever-changing environment. These changes include new employment laws, the changing skills and demographics of the work force, people expecting more and different things from their employers, and companies becoming increasingly globalized in their operations. The HR manager's job is challenging. HR managers are in high demand.

The HRMG emphasis prepares students for careers in HR by covering such topics as recruiting, staffing, training and development, performance appraisal, evaluation, compensation, career planning, safety and health, equal employment opportunity and affirmative action, and labor relations.

Required Courses

HRMG 434 Labor Relations and Negotiation 3
HRMG 438 Human Resource Management 3
HRMG 439 Legal and Social Issues in Human Resources Management 3
HRMG 441 Motivating, Rewarding and Developing Employees 3
HRMG 485 Directed Research in Human Resources and Management 3

and select one of the following:

ORMG 411 Experiences in Leadership 3
ORMG 437 Organizational Development and Change . . 3
HRMG 496 Internship in Human Resources 3
BUAD 390 Improving Personal and Team Creativity . . . 3
Total 18

Information Systems

The use of information technology is pervasive in the business world today. No matter what career is chosen, virtually all students will have to work with and understand the basics of information technology to be successful. For the business major, the information systems curriculum helps prepare students for this technology-centric world.

The curriculum includes an introduction to basic computer hardware and software, programming, databases, networking, along with the fundamentals of analysis and design and project management. The continuous advances in the use of decision support systems and management information systems make the field one from which to build a productive career in business.

Required Courses

INFS 305 Intro to Information Technology (elective credit) 3
INFS 308 Business Programming I 3
INFS 340 Database Concepts and Application 3
INFS 370 Computer Networks and Telecommunications 3
INFS 410 Systems Analysis and Design 3
INFS 450 Information Systems Project Management . . . 3

and select one of the following three courses

INFS 310 Business Programming II 3
INFS 440 Emerging Technologies 3
INFS 496 Internship in Information Systems 3
Total 21

International Business

Economies are intertwined as never before, and in most industrial sectors competition is increasingly global. Simultaneously, there are a number of new and dynamic events and processes that influence the world economic, cultural, and political arenas. It is essential that managers understand the implications of these changes. They affect managers in at least three ways.

First, firms that see themselves as primarily domestic companies are facing increased competition by foreign firms in their domestic market. Secondly, foreign markets and resources are increasingly becoming important in terms of incremental revenue, profitability, sources of technology, and capital. And third, U.S. world-wide economic influence has diminished in a relative sense, and it has become more important than ever for executives to be aware of international influences.

This area of emphasis addresses these issues and introduces students to the challenges and basic skills required for effective international business management.

Required Courses

INTB 360 International Business 3
FNCE 440 International Financial Management 3
MKTG 490 International Marketing 3
INTB 480 International Management 3

and select two of the following nine elective options:

INTB 461 Regional Business Environment: Europe 3
INTB 496 Internship in International Business 3
COMM 328 Intercultural Communication 3
ECON 328 International Political Economy 3
ECON 341 International Economics 3
P SC 421 International Politics 3
P SC 425 International Law 3
SOC 438 Globalization and Global Culture 3
Or a pre-approved upper division business course that has significant emphasis on International issues . . .3
Total 18

Foreign Language Recommendation

Students majoring in international business are strongly encouraged to use their lower-division electives for learning another language and/or taking a language immersion program.

Marketing

Global and national economies are directly influenced by marketing, a dynamic and challenging activity relevant to profit and nonprofit organizations alike. Marketing is the

guiding force in conceiving and designing products and services, pricing them according to perceived value in the marketplace, promoting them through advertising and personal selling to potential buyers, and providing acceptable distribution arrangements for customers. Customer-oriented planning and implementation provide the cornerstone of modern marketing techniques and strategies.

Marketing is a vital ingredient in an organization's formula for success, the essential bridge, the crucial link in effecting mutually beneficial exchanges between buyers and sellers. The field of marketing is eclectic in applying such disciplines as economics, psychology, statistics and sociology to creative work, problem solving and strategic management. For the graduate, career opportunities are plentiful in sales, advertising, marketing research, product development, retailing, wholesaling, and related endeavors, both domestically and internationally.

Required Courses

MKTG 330 Marketing Research 3
MKTG 465 Promotion Management and Strategy 3
MKTG 480 Marketing Policies and Strategies 3

and select three of the following six courses:

MKTG 440 Service Management and Marketing 3
MKTG 455 Contemporary Issues in Marketing 3
MKTG 460 Business Marketing Management 3
MKTG 470 E-Commerce 3
MKTG 485 Marketing Analysis & Planning Project . . . 3
MKTG 490 International Marketing 3
MKTG 496 Internship in Marketing 3
MKTG 450 Retail Merchandising Mgmt & Promotion
MKTG 451 Sports Marketing
Total 18

Additional recommended business elective:
BUAD 390 Improving Personal and Team Creativity

Marketing/Professional Golf Management

The purpose of the Marketing/Professional Golf Management is to prepare students to be professional managers in the golf industry, while holding the distinction of membership in the Professional Golfers' Association of America (PGA). These individuals will be qualified to fill any of a number of roles in a variety of positions and specific entities.

The program involves a three-part preparation process: (a) completion of the requirements for a bachelor's degree in marketing, (b) completion of 16-18 months of supervised internships, and (c) completion of the PGA's Professional Golf Management Training Program (PGA/ PGM™), including passing the Playing Ability Test (PAT).

Individuals will generally enter the PGM Program as freshmen business majors; in addition to meeting standard academic entrance requirements, these students must have a documented handicap of no greater than 12.

Qualified transfer students are also accepted into the program; applicants must also meet the handicap requirement and must understand that their transfer credits shorten only the time allocated to the academic portion of the program. They must complete the internships and the PGA/PGM™ training on the same schedule as other students. The PGM Academic Advisor works with each transfer student to create a personalized program of study. Because there are relatively few electives in the program, it is possible that not all transferred courses will count toward graduation.

All new PGM students must start their program in the Fall semester.

Required Courses

The undergraduate curriculum for the PGM includes the following required courses:

PGMT 100 Orientation to PGM 2
PGMT 101 Introduction to PGA/PGM Level 1 3
PGMT 102 PGA/PGM Level 1 1
PGMT 200 PGA/PGM Level 2 3
PGMT 300 PGA/PGM Level 3 3
MKTG 330 Marketing Research 3
BIOL 345 Anatomy & Exercise Science Applied to Golf . 4
PGMT 350 Turf Grass Management. 3
PGMT 360 Food & Beverage Management. 3
MKTG 440 Service Management & Marketing 3
MKTG 450 Retail Merch. & Management 3
MKTG 451 Sports Marketing. 3
MKTG 480 Marketing Policies & Strategies 3

Required Internships

The following internships must be completed:

PGMT 110 Internship 1
PGMT 210 Internship 1
PGMT 211 Internship 1
PGMT 410 Internship 1
PGMT 411 Internship 1

Note: PGMT 110 is to be taken in the summer following the freshman year. PGMT 210 and 211 are to be taken in successive Summer and Fall semesters following the sophomore year. PGMT 410 and 411 are to be taken in successive Fall and Spring semesters after the junior year.

All internships occur under the supervision of members of the PGA of America at facilities approved by the PGM Program staff. The facilities can be located virtually anywhere in the country or, in some circumstances, outside the country. Placement is assisted by the Internship Coordinator in cooperation with each student. Internships typically provide compensation directly to the student.

Each student will submit a post-internship report and will receive a grade based on demonstrated progress toward completing specified work experiences.

PGM students also must enroll in the PGA/ PGM™ during their freshman year, which is accomplished through their enrollment in PGMT 100. The cost of the program is in addition to regular tuition and student fees. It is collected from students as special course-related fees and is passed along intact to the PGA of America. Completion of

the PGA/PGM™ also requires passing three checkpoints (during the sophomore, junior, and senior years) as well as the Playing Ability Test administered by the Colorado Section of the PGA or other sections in other states. Students are encouraged to pass the PAT as soon as possible, even before enrollment and preferably before the second internship. PGA standards require freshmen to attempt the PAT at least once, sophomores at least twice, and all others at least three times per year until it is passed. Additional information about the PGA/PGM™ and the PAT is available at www.pgalinks.com. Students who participate in the PGM Program are subject to additional unique academic and professional policies as described in the PGM Student Handbook. Copies of the handbook are available from the program's Director.

Organizational Management

Today's highly competitive, constantly changing global environment places a premium on skilled managers who know how to lead and motivate people, build high performance teams, develop world class organizations, and understand the dynamics of organization behavior. Organizations of all sizes and types need skilled managers. The organizational management curriculum provides a foundation for careers in management, human resource management, small business management and entrepreneurship, and public agency management. This area of emphasis addresses contemporary issues in management and the changing roles of managers and leaders at all levels of the organization.

Required Courses

BUAD 390 Improving Personal and Team Creativity . . . 3
ORMG 411 Experiences in Leadership 3
ORMG 437 Organizational Development and Change . . 3
HRMG 438 Human Resource Management 3

and select two of the following courses:

HRMG 434 Labor Relations and Negotiation 3
HRMG 439 Legal and Social Issues in Human Resources Management 3
HRMG 441 Motivating, Rewarding and Developing Employees 3
HRMG 485 Directed Research Projects in Human Resources and Management 3
HRMG 496 Internship in Human Resource Mgmt 3
ORMG 496 Internship in Organizational Management 3
Total 18

Service Management

The Service Management area of emphasis is designed to provide skills and knowledge for those who will work in a management or professional capacity in the service sector, including customer service departments, call centers, help-desks, insurance, and other professional service organizations (e.g. law, accounting).

Required Courses

ORMG 411 Experiences in Leadership 3
ORMG 437 Organizational Development and Change . .3
MKTG 440 Service Management and Marketing 3
MKTG 480 Marketing Policies and Strategies 3

and select two of the following courses:

BUAD 390 Improving Personal and Team Creativity . . .3
HRMG 434 Labor Relations and Negotiation 3
HRMG 438 Human Resource Management 3
HRMG 439 Legal and Social Issues in Human Resources Management 3
HRMG 441 Motivating, Rewarding and Developing Employees 3
HRMG 485 Directed Research Project in Human Resources Management 3
HRMG 496, ORMG 496 or MKTG 496 Internship in Human Resource Management, Organizational Management or Marketing 3
MKTG 330 Marketing Research 3
Total 18

The Bachelor of Innovation (BI) Degree

The Bachelor of Innovation™ family of programs is an interdisciplinary undergraduate program. The Bachelor of Innovation™ is actually a family structure, much like a bachelor of science or a bachelor of arts, in which particular majors are defined. The Bachelor of Innovation™ is a very structured program with a general education core, a common core in innovation, an in-depth major field of study/emphasis core, and a cross-disciplinary core to help ensure the breadth needed for innovation.

Bachelor of Innovation Requirements

Credit Hours: The total number of credits needed to graduate in the BI in Business will be 120 credit hours.

General Education Requirements: This covers the basic breadth of background needed: Social Science, Sciences, Math, Humanities, etc. This set of courses will depend on the college of the emphasis major; for example, the student who is enrolled in the BI of Business Administration would use this block of courses to fulfill the College of Business general education requirements.

The Innovation Core: This requires 27 credit hours, geared toward innovation and entrepreneurship; a key component is multi-disciplinary team activities over the sophomore, junior and senior years.

The Degree/Major Emphasis: This is the set of courses that a student takes to satisfy the main area of emphasis – the "core" of the Bachelors degree program. For the BI in Business, it is expected to be 42 credits, designed to follow the requirements for a similar accredited degree program in the College.

Cross-Discipline Core: Each Cross-discipline core is a coherent collection of 21 credits from one "cross over" area each student will select in their degree program. The goal is to provide some basic knowledge, appreciation and experience about what professionals in that area do and to provide

sufficient background to effectively interact in that domain. The cross-discipline core is a targeted list of courses, not just a total number of credits in an area.

Technology Core: This requirement (for non-technology degrees) will provide a broad coverage of engineering and technology. These may be new courses (if resources permit) or may be a collection of existing "introductory" courses in engineering.

Globalization Core: This (for any BI major) will provide a selection of courses on international issues. It will have a language requirement (passing at the second year level) and also international business/policy courses. It is being considered that students in this option should be required to demonstrate at least 3 months residence in a non-English speaking country, and a one-semester study abroad will be encouraged. While abroad, involvements in the Innovation team projects will be "virtual," but will be required.

Creative Communication Core: This (for any BI major) will provide coverage of a variety of communication mechanisms. These will be a collection of existing courses, including both traditional (e.g., oral communication) and non-traditional (e.g., visual arts) communication approaches.

COB Minor Programs of Study

Minors for Business Students

Professional Program students (Students graduating with a 2.0 overall, 2.5 in Business, and 2.5 in emphasis) may minor in a second business area (9-12 credit hours), or business students may choose a minor through the Colleges of Letters, Arts, and Sciences; Engineering; or Nursing (18 credit hours).

All 9-12 credit hours of business courses for the minor must be taken in residence in the College of Business and Administration and must not already be counting toward the area of emphasis. If the 9-12 hours are not unique courses, then a student cannot earn a minor. Courses taken for the minor will count toward area/ business electives. A minor GPA of 2.5 must be earned, and minor courses must have a C- grade or better.

Accounting Minor

Required Courses

ACCT 301 Intermediate Accounting 3
ACCT 311 Intermediate Accounting II 3
ACCT 421 Individual Income Tax 3
Total 9

Finance Minor

Required Courses

FNCE 400 Advanced Corporate Finance 3
FNCE 420 Investment and Portfolio Management 3
FNCE 450 Money and Banking 3
Total 9

Human Resources Minor

Required Courses

HRMG 438 Human Resource Management 3
HRMG 439 Legal and Social Issues in Human Resources Management 3

And select one of the following:

HRMG 434 Labor Relations and Negotiation 3
HRMG 441 Motivating, Rewarding, and Developing Employees 3
HRMG 485 Directed Research Projects in Human Resources and Management 3
Total 9

Information Systems Minor

Required Courses

INFS 305 Introduction to Information Technology 3
INFS 340 Database Concepts and Application 3
INFS 410 Systems Analysis and Design 3

And select one of the following:

INFS 308 Business Programming 3
INFS 370 Computer Networks and Telecommunications 3
INFS 440 Emerging Technologies 3
Total 12

International Business Minor

Required Courses

Choose three of the following:

INTB 360 International Business 3
INTB 480 International Management 3
INTB 461 Regional Business Environment Europe 3
FNCE 440 International Financial Management 3
MKTG 490 International Marketing 3
Total 9

Marketing Minor

Required Courses

Any three 300/400 Level MKTG courses, above MKTG 300.
Total 9

Organizational Management Minor

Required Courses

ORMG 411 Experiences in Leadership 3
ORMG 437 Organizational Development and Change . . 3
BUAD 390 Improving Personal and Team Creativity . . . 3
Total 9

Service Management Minor

Required Courses

MKTG 440 Service Management and Marketing 3
MKTG 480 Marketing Policies and Strategies 3
ORMG 437 Organizational Development and Change . . 3
Total 9

Minors for Non-Business Students

General Requirements

Residency: Students admitted to undergraduate degree programs other than business may elect to pursue a minor in business with the approval of the appropriate advisor in the Student Success Center. It is a College of Business and Administration requirement that all course work in the area of specialty composing the minor and a minimum of 9 credit hours be taken in residence at UCCS.

GPA Requirement: Non-business students seeking a business minor must have a 2.0 overall GPA and a 2.5 GPA in required courses for minor.

Computer Literacy: The College of Business and Administration requires all students completing a minor in Business to complete a computer literacy requirement through any of the following options:

- Pass Computer Competency test
- Complete INFS 110 or equivalent computer course
- Transfer equivalent of basic computer course

If a passing score is earned on Competency exam or equivalent course has been completed, students must fill the 3 credit hour opening with a 300-400 level course in the specified minor area.

Prerequisites: Students may not register for business courses for which they do not have the stated prerequisites including class standing.

Areas of Study

Specifically the minors available to non-business students are in the areas of business administration, accounting, finance, information systems, international business, organizational management, and marketing. These minors require the following course work:

Business Administration Minor

Required courses
Computer Literacy course or
300-400 Level BUS course 3
ACCT 201 Intro to Financial Accounting. 3
ORMG 330 Intro to Mgmt & Organization 3
MKTG 300 Principles of Marketing 3
Two courses from Course List below 6
Any 2 300-400 electives , **OR** QUAN 201, 202,
OR ACCT 202.
Total 18

Accounting Minor

Required courses
ACCT 201 Introduction to Financial Accounting 3
ACCT 202 Introduction to Managerial Accounting . . . 3
BUAD 300 Integrated Skills for Management 3
ACCT 301 Intermediate Accounting I 3
ACCT 302 Intermediate Accounting II 3
ACCT 311 Cost Accounting **OR**
ACCT 421 Individual Income Tax 3
Computer Literacy course **OR** 300-400 Level
ACCT elective 3
Econ 101 Introduction to Microeconomics **OR**
Econ 202 Introduction to Macroeconomics 3
Total 24

Applied Management Minor

(For students pursuing a Bachelor of Science degree with a Health Care Management Option)

Required Courses
ACCT 201 Intro to Financial Accounting 3
QUAN 201 Business Statistics 3
QUAN 202 Process and Statistics-Based Decisions 3
FNCE 305 Basic Finance 3
HRMG 438 Human Resource Management 3
MKTG 300 Principles of Marketing 3
MKTG 440 Service Management & Marketing 3
OPTM 300 Fundamentals of Operations Management . . 3
Total 24

Recommended Courses
INFS 110
ECON 101 **OR** ECON 202.

Business Management for Sustainable Development Minor

(For students pursuing a major in Geography and Environmental Sciences)

Required Courses
Computer Literacy Course **OR**
Additional 300-400 level Business course 3
BUAD 100 Introduction to Business 3
ACCT 201 Introduction to Financial Accounting 3
MKTG 300 Principles of Marketing 3
ORMG 330 Introduction to Management and
Organizations 3
HRMG 485 Directed Research in Human Resources
and Management 3
ORMG 437 Organization Development & Change 3
Total 21

Finance Minor

Required Courses
ACCT 201 Introduction to Financial Accounting 3
Computer Literacy Course **OR** 300-400 level
FNCE elective 3
Econ 101 Introduction to Microeconomics. 3
Econ 202 Introduction to Macroeconomics 3
BUAD 300 Integrated Skills for Management 3
FNCE 305 Basic Finance 3
Electives in Finance Area (300-400 level) 6
Total 24

Human Resource Management Minor

Required Courses
ACCT 201 Introduction to Financial Accounting 3

Computer Literacy Course **OR** 300-400 level
HRMG elective 3
Econ 101 Introduction to Microeconomics
OR Econ 202 Introduction to Macroeconomics 3
BUAD 300 Integrated Skills for Management 3
ORMG 330 Introduction to Management and
Organization 3
Electives in Human Resources Management
(400 level) 9
Total 24

Information Systems Minor

Required Courses
ACCT 201 Introduction to Financial Accounting 3
Computer Literacy Course OR 300-400 level
INFS elective 3
INFS 205 Intro to Information Technology. 3
BUAD 300 Integrated Skills for Management 3
INFS 340 Database Concepts and Application 3
INFS 370 Computer Networks and
Telecommunications 3
INFS 410 Systems Analysis and Design 3
Econ 101 Introduction to Microeconomics
or Econ 202 Introduction to Macroeconomics. 3
Total 24

International Business Minor

Required Courses
MKTG 300 Introduction to Marketing 3
ORMG 330 Introduction to Management 3
and select three of the following five courses: 9
INTB 360 International Business
FNCE 440 International Financial Management
MKTG 490 International Marketing
INTB 480 International Management
INTB 461 Regional Business Environment: Europe
Total 15

Marketing Minor

Required Courses
MKTG 300 Principles of Marketing 3
And any four upper division MKTG electives. 12
Total 15

MBA Prep

Required Courses
ACCT 201 Intro to Financial Accounting 3
Computer Literacy Course **OR** 300-400 level elective . . 3
BUAD 300 Integrated Skills for Management 3
BUAD 400 Business, Government, Law & Society 3
QUAN 201 Business Statistics 3
Choose from one of the following: 3
ACCT 202
QUAN 202
Students should take ECON 202 as an elective in degree.
Total 18

Organizational Management Minor

Required Courses
ACCT 201 Introduction to Financial Accounting 3
Computer literacy course **OR** 300-400
ORMG elective 3
Econ 101 Introduction to Microeconomics
OR Econ 202 Introduction to Macroeconomics 3
BUAD 300 Integrated Skills for Management 3
ORMG 330 Introduction to Management
and Organization 3
ORMG 411 Experiences in Leadership 3
ORMG 437 Organization Development & Change 3
BUAD 390 Improving Personal and Team Creativity . . . 3
Total 24

Undergraduate Certificates in Business

For students already holding a bachelor's degree, the College of Business offers certificates in several undergraduate areas of emphases, requiring 15-21 hours of course work.

Students who already hold a bachelor's degree in Business can pursue a certificate in accounting, information systems, marketing, organizational management, and service management. Those students who hold a BA or BS in a discipline other than business may pursue certificates in business administration, human resource management, and organizational management. Priority for registration in business courses is given to business degree students.

A certificate GPA of 2.5 must be earned, with no grades below a C-.

Please contact the Director of Undergraduate Programs in the College of Business to apply for admission.

Certificates that require a bachelor's degree in business

Accounting Certificate/CPA Track – 21 hours

Prereqs: 6 hours fundamental accounting, ACCT 201, 202

Required Courses
ACCT 301 Intermediate Accounting I
ACCT 302 Intermediate Accounting II
ACCT 311 Cost Accounting
ACCT 421 Individual Income Tax
ACCT 422 Corporate & Partnership Taxation
ACCT 441 Fund Accounting for Gov't & Non profit
ACCT 461 Auditing

Accounting Certificate/General – 15 hours

Prereqs: 6 hours fundamental accounting, ACCT 201, 202

Required Courses
ACCT 301 Intermediate Accounting I
ACCT 302 Intermediate Accounting II
ACCT 311 Cost Accounting

Select two additional 400 level Accounting courses

Finance Certificate – 15 hours

Prereqs: Upper-level basic finance

Required Courses:
FNCE 400 Advanced Corporate Finance
FNCE 410 Cases and Concepts in Finance
FNCE 420 Investment & Portfolio Management
FNCE 440 International Financial Management
FNCE 450 Money and Banking

Information Systems Certificate – 15 hours
Prereq: Computer Literacy

Required Courses:
INFS 205 Introduction to Information Technology
INFS 308 Business Programming I
INFS 340 Database Concepts & Application
INFS 370 Computer Networks & Telecommunications
INFS 410 Systems Analysis and Design

Marketing Certificate – 15 hours
Prereq: MKTG 300

Required Courses:
MKTG 330 Marketing Research
MKTG 465 Promotion Management & Strategy
MKTG 480 Marketing Policies & Strategy

Select two additional upper division Marketing electives

Service Management Certificate – 15 hours
Prereq: MKTG 300 and ORMG 330

Required Courses:
MKTG 440 Service Management & Marketing
MKTG 480 Marketing Policies and Strategies
ORMG 411 Experiences in Leadership
ORMG 437 Organization Development & Change

Select one additional HRMG elective
(If MKTG 300 and ORMG 330 were taken at UCCS, they will count towards the elective course.)

Certificates for Students with a Bachelor's Degree in Any Area Other Than Business

Business Administration – 18 hours

Course Requirements
Computer Literacy course OR additional course from list
ACCT 201 Intro to Financial Management
ORMG 330 Intro to Mgmt & Organization
MKTG 300 Principles of Marketing

Select two courses from the following:
ACCT 202 Introduction to Managerial Accounting
BUAD 300 Integrated Skills for Management
BUAD 400 Business, Government, Law, and Society
FNCE 305 Basic Finance
HRMG 438 Human Resource Management
INFS 205 Introduction to Information Technology
INFS 308 Business Programming
INFS 340 Database Concepts and Application
INFS 370 Computer Networks and Telecommunications
MKTG 330 Principles of Marketing
ORMG 411 Experiences in Leadership
QUAN 201 Business Statistics
QUAN 202 Process and Statistics-Based Decisions
OPTM 300 Fundamentals of Operations Mgmt.

Human Resources Management Certificate – 15 hours

Required Courses:
HRMG 438 Managing HR for Competitive Advantage
HRMG 439 Legal & Social Issues in HRM
HRMG 441 Motivating, Rewarding & Developing Empl.
HRMG 434 Collective Bargaining and Labor Relations
Select one of the following:
HRMG 485 Directed Research Projects in HRM
ORMG 437 Organization Development and Change

Organizational Management Certificate – 15 hours
Prereq: ORMG 330

Required Courses:
ORMG 411 Experiences in Leadership
ORMG 437 Organization Development & Change
BUAD 390 Improving Personal and Team Creativity
Select two additional ORMG or HRMG electives

Master of Business Administration (MBA)

The Master of Business Administration program is devoted to the concepts, analytical tools, and communication skills required for competent and responsible management. The management of an enterprise is viewed in its entirety and within its social, political, and economic environment. All on-campus graduate level courses are scheduled during the evening hours to accommodate employed students.

Residence and Distance Options
The Graduate School of Business Administration offers an MBA program delivered via two modes – residence and distance (online). Students may choose to complete their entire MBA program through either of the two modes or take a combination of on-campus and on-line courses. However, on-line courses have a higher tuition. Please contact the MBA Advising Office for more information.

Evening MBA Program
The on-campus MBA is designed for students complete their degree as a full-time or part-time student. Students structure the pace of completing the program to meet personal and professional goals. Students may begin the program in the Fall, Spring, or Summer semester. In the fall or spring semesters, courses are only offered from 4:30 to 7:05 PM or 7:15 to 9:50 PM and meet once a week.

MBA Graduate Admission

Admission Criteria
The Graduate School of Business Administration seeks to admit students who show a high likelihood of success in

postgraduate business study. The following three basic indicators are used to evaluate candidates for admission:

1. ***Prior academic experience.*** A four-year baccalaureate degree from a regionally accredited institution or foreign equivalent is a condition for application. The applicant's complete academic record from all institutions attended is examined.
2. ***Graduate Management Admission Test (GMAT)*** scores. The total score as well as the individual verbal, quantitative and analytical writing scores of the applicant are examined. Results of other standardized graduate admission tests may be used with the approval of the MBA advising office. In some special cases where the applicant has substantial business experience, the GMAT may be waived and a portfolio application process may be used. Please contact the MBA Advising Office for more information.
3. ***Employment experience.*** Of particular interest is the candidate's progression of work. Recommendations from prior and current colleagues are optional. Though employment experience may be used to evaluate a candidate, it is not required.

Provisional and Senior Admits

Individuals may be admitted on a provisional status at the discretion of the admissions committee. If the terms of the provisional admittance are met, the student will be transferred to regular degree status. Students who do not meet the terms of the provisional admission are not eligible for admittance into the program.

Seniors in this university who have satisfied the undergraduate residence requirements and who need not more than 6 semester hours of advanced subjects and 12 credit points to meet their requirements for undergraduate degrees may be admitted to the MBA program. They must meet regular admissions criteria and submit a completed application by the published deadline. They must complete their final undergraduate courses during their first semester as an MBA student.

Application Process and Deadlines

The application, GMAT or other test scores, two official transcripts (not student copies) from each post-secondary institution attended, a resume, and the nonrefundable application fee should be submitted by April 1 for summer admission, by June 1 for fall admission, and by November 1 for spring admission.

See MBA web site: www.uccs.edu/mba for the online application or contact the MBA advising office by phone at 1-800-990-8227, ext. 3408 or by email at mba@uccs.edu.

The mailing address for supporting materials is as follows:

UCCS Graduate School of Business and Administration
1420 Austin Bluffs Parkway
Colorado Springs, CO 80918

MBA Academic Policies

Access to MBA Courses

Students must be officially admitted to the MBA program in order to register for graduate level courses.

Students who are officially admitted to other CU graduate programs may be eligible to register for MBA courses. All course prerequisites must be met. Interested students should contact the MBA advising office for more information.

Course Load

The normal course load for full-time graduate students is 12-15 semester hours during the fall and spring semesters. The normal course load for part-time graduate students is 3-6 hours during the fall and spring semesters.

Students are limited to 15 credit hours for the fall and the spring semesters. Students are limited to 9 credit hours for the summer semester. Credit hours over these limits require an academic petition be approved. Concurrent enrollment in both campus and distance classes is subject to the same credit hour limits.

MBA Completion Timeframe

Candidates for the MBA degree are expected to complete the degree within five years after they begin their first 600-level course. If course work is completed more than five years before the expected graduation date, the work will not be acceptable for the degree unless it is validated by the Graduate School of Business Administration dean.

Declaring Area of Emphasis

Students enrolled in the campus program must have permission to follow a distance area of emphasis

Students enrolled in the distance program must have written permission to follow a campus-specific curriculum requirement for a particular area of emphasis.

Grade Point Average

Any grade below C (2.0) is not a passing grade for graduate students. A student may repeat a course once for which he or she has received a grade below C. Both the original grade and the grade for the repeated course count in the computation of the grade point average. Please see the Standards of Performance – Graduate section for more information.

Graduate Standards of Performance

No individual grade below a C will count towards MBA requirements.

To be in good standing, students must have an overall grade point average of not less than 3.0 for all degree program course work attempted.

The academic performance of each student will be reviewed at the end of each semester. Upon the completion of nine semester hours, any student who has a grade point average less than 3.0 in MBA course work will be placed on probation immediately. In general, students will not be placed on probation until a minimum of nine semester hours has been completed.

After a student has been placed on probation, the student has a maximum of one calendar year to raise his or her grade point average to 3.0. Courses taken to raise the cumulative grade point average must be applicable to the degree, and must be taken in the three semesters (including summer) immediately following the semester in which the cumulative grade point average fell below 3.0. Failure to raise the cumulative grade point average to 3.0 in the time period outlined will result in immediate suspension.

While on academic probation, failure to demonstrate satisfactory academic progress towards an MBA degree, may result in academic suspension.

In the event a student attains probationary status more than one time, the same time limits shall apply.

A suspended MBA student is eligible to petition the dean for readmission after one calendar year.

Transfer Policy

A maximum of 6 semester hours of appropriate coursework from another AACSB graduate program may be considered for transfer to the degree program.

MBA Academic Advising

Each graduate student must meet with an MBA advisor during the student's first term in residence to prepare a degree plan. Distance MBA students will have a degree plan mailed to them which must be signed and returned to the MBA advising office. Each degree plan requires the approval of an MBA advisor and the dean. The preparatory courses which the student will complete (if any), and the student's area of emphasis will be discussed at that time. For contact information, see the beginning of the College of Business section.

MBA Preparatory Requirements

The College of Business provides the following series of business preparatory courses as required background courses for the graduate study of business. These courses, which are open only to admitted MBA degree students, may be waived on a course-by-course basis with prior academic course work or successful scores on designated achievement tests.

Course/ Title/ Credit

BCOM 550 Business Communication. 3
BUAD 550 Fundamentals of Economics 3
BUAD 560 Business, Government, and Society 3
QUAN 550 Fundamentals of Business Statistics 3

These preparatory classes are graduate level courses that – if required – are taken in addition to the 36 semester hours required for the MBA degree.

Graduate students who are interested in waiving one or more of the MBA preparatory courses based on related prior course work must consult with an MBA advisor. Waivers of preparatory courses are based on a number of criteria, including the age of the prior course work, the grade earned, and other considerations determined by the faculty. Prior course work must have been completed at an accredited institution. Preparatory course waivers are made at the discretion of the College of Business and are recorded on a degree plan approved by the dean.

MBA Degree Requirements

Credit Hours

In addition to any preparatory courses which may be required (see previous section), students must complete a minimum of 36 semester hours of course for the MBA Degree. This course work consists of 21 hours of core competency courses and 15 hours of elective courses. With the 15 elective hours, students may choose to earn a general MBA or choose to concentrate in a functional or interdisciplinary area of emphasis as listed below.

Choice of Emphasis

Students may choose to complete an area of emphasis through the campus program in Accounting, Finance, Homeland Defense, International Business, Management, Marketing, Operations Management, Services Management or Technology Management.

Students may choose to complete an area of emphasis through the distance program in Finance, Health Care Administration, Homeland Defense, Information Systems, International Business, Management, Project Management or Technology Management.

MBA Core Requirements (21 hours)

ACCT 600 Contemporary Issues in Accounting 3
FNCE 600 Corporate Financial Management 3
INFS 600 Information Systems 3
MGMT 600 Leading and Managing in Changing Times 3
MKTG 600 Marketing Strategy 3
OPTM 600 Operations: Competing through Capabilities 3
BUAD 650 Strategic Management 3

MBA Areas of Emphasis Requirements

Students may choose to receive a general MBA or decide to specialize in a functional or interdisciplinary area of emphasis as listed below.

Note: Health Care Administration, Project Management, and Information Systems are only offered through the distance mode.

Accounting MBA – 12 hours

Students who choose an area in Accounting will take 21 semester hours of MBA core courses, 12 semester hours of Accounting (ACCT) elective courses and 3 semester hours of any MBA 600-level elective course.

ACCT 601 Seminar: Financial Accounting Theory 3
ACCT 611 Seminar: Managerial Accounting Issues 3
ACCT 661 Seminar: Issues in Auditing 3

And one of the following:

ACCT 671 Individual Income Tax 3
ACCT 672 Corporate Income Tax 3
ACCT 673 Introduction to Accounting Systems 3
ACCT 674 Accounting for Government Nonprofit 3

ACCT 676 Auditing 3

Students with accounting undergraduate
ACCT 601 – Seminar: Financial Accounting Theory . . .3
ACCT 611 – Seminar: Managerial Accounting Issues . .3
ACCT 661 – Seminar: Issues in Auditing 3

Students with non-accounting undergraduate:
ACCT 600 – Contemporary Issues in Accounting
(may substitute Acct 201 and Acct 202) 3
ACCT 301 – Intermediate Accounting I 3
ACCT 302 – Intermediate Accounting II 3
ACCT 311 – Cost Accounting 3
The three 600-level accounting courses (listed above)
and one 400-level accounting 12

The 400-level accounting course should be selected after consultation with the accounting faculty and must be approved for graduate credit prior to enrollment. Course work assignments in the 400-level course will be appropriate to graduate degree course work. Accounting 301, 302, and 311, or their equivalents are prerequisites for 600-level accounting courses in the accounting major.

Those graduate students who are preparing for a career as a Certified Public Accountant (CPA) should read the legal requirements and recommendations for becoming certified in Colorado and other states as described in the undergraduate section AREA OF EMPHASIS in Accounting for the CPA track in this course *Bulletin*.

Finance MBA – 9 hours

All organizations, large and small, must effectively invest and manage their capital. The finance function is critical in both for-profit and not-for-profit organizations. Job opportunities exist for finance graduates in almost all industries, including the financial services industry and positions within the finance area of corporations. Finance graduates manage capital for large organizations and their independent business units as well as for small organizations.

Students who choose an area in Finance will take 21 semester hours of MBA core courses, 9 semester hours of Finance (FNCE) elective courses and 6 semester hours of any MBA 600-level elective course.

Complete any three of the following:
FNCE 610 Problems and Policies in
Financial Management 3
FNCE 620 Investment Management and Analysis 3
FNCE 640 International Financial Management 3
FNCE 650 Managerial Economics and
the Business Cycle 3

General MBA

A General MBA allows the student to select 15 hours of 600 level business courses based on the individual's particular interests and objectives.

Health Care Administration MBA – 12 hours

See Information Under Distance MBA Program (p.63)

Homeland Defense MBA – 12 hours

Homeland Defense is an interdisciplinary program developed by the *Network Information and Space Security Center* (NISSC) with classes offered through the School of Public Administration, College of Letters, Arts and Sciences and the College of Business.

This area is designed to develop leaders in industry and government; the courses prepare students to develop homeland security and homeland defense strategies for their own organizations and manage relationships with the many diverse organizations working in this arena.

Students who choose an area of in Homeland Defense will take 21 semester hours of MBA core courses, 12 semester hours in the required Homeland Defense courses, and 3 hours of an MBA 600-level elective course.

Complete the following courses:
PAD 5950 Introduction to Homeland Defense 3
PAD 5951 Interagency Relationship in
Homeland Security and Homeland Defense 3
PSC 598 Understanding the Threat 3
INFS 682 Protection of Critical Infrastructures 3

Information Systems MBA – 9 to 12 hours

Information Systems is only offered through the distance mode of delivery. Refer to the Distance MBA Program (below) for course requirements.

International Business MBA – 9 hours

An emphasis in International Business will prepare students to excel in the field of international business. This field of study is becoming more relevant and important as the global economy expands. Students are encouraged to take a foreign language to strengthen this area of emphasis. Students who choose an area in International Business will take 21 semester hours of MBA core courses, 9 semester hours of the required International Business elective courses, and 6 semester hours of any MBA 600-level elective course.

Complete three of the following six courses:
BUAD 690 Managing in Global Markets 3
FNCE 640 International Financial Management 3
MKTG 690 International Marketing and Export
Management 3

Management MBA – 9 hours

In today's highly competitive global environment, a premium will be placed on skilled managers who know how to motivate and lead people. This area of emphasis addresses these issues and other contemporary issues in management. Additionally, the changing roles of managers and leaders at management levels within the organization are explored. The Management emphasis also focuses on the development and maintenance of effective relationships between employers and employees.

Students who choose an area in Management will take 21 semester hours of MBA core courses and 9 semester hours of Management (MGMT) elective courses and 6 hours of any MBA 600-level elective course.

Complete any three of the following courses:
MGMT 610 Development of Groups and Organizations 3
MGMT 620 Managing Organization Development and Change 3
MGMT 630 Managing Human Resources for Competitive Advantage 3
MGMT 640 Legal Issues in Managing Human Resources 3

Marketing MBA – 9 hours
An effective marketing program is necessary to the success of any business organization. Through the marketing efforts of a firm, products and services are designed and delivered that maximize customer satisfaction. Students choosing the marketing area of emphasis may find exciting careers in such diverse fields as product management, professional selling, customer support, advertising and marketing research. The marketing curriculum is designed to give the student hands-on marketing experience through applied classes and projects.

Students who choose an area in Marketing will take 21 semester hours of MBA core courses and 9 semester hours of Marketing (MKTG) elective courses and 6 hours of any MBA 600-level elective course.

Complete any three of the following courses:
MKTG 630 Marketing Research and Decision Making 3
MKTG 640 Services Marketing 3
MKTG 650 Marketing Communications 3
MKTG 670 E-commerce 3
MKTG 690 International Marketing and Export Management 3

Operations Management MBA– 9 hours
Both tangible products and services require effective process technology management. In the past few decades, changes have revolutionized how products are manufactured. Quality management has become a major focus of most contemporary manufacturing organizations. Students completing this emphasis will be prepared to seek positions in manufacturing in virtually all industries.

Students who choose an area in Operations Management will take 21 semester hours of MBA core courses and 9 semester hours of the allowable Operations Management elective courses and 6 hours of any MBA 600-level elective course.

Complete three of the following four courses:
BUAD 670 World Class Service Management 3
OPTM 610 Customer Focused Processes: Quality Management and Metrics 3
OPTM 620 Managing Supply Chains 3
OPTM 630 Managing Projects for Competitive Advantage 3

Project Management MBA – 12 hours
Project Management is only offered through the distance mode of delivery. Refer to the Distance MBA Program (below) for course requirements.

Services Management MBA – 9 hours
Service industries are expected to continue to grow at a rapid rate in the 21st century. The services management emphasis is taught in an interdisciplinary fashion which allows students to explore several different areas within the firm. This enables students to better understand how to manage a service organization properly.

Students who choose an area in Services Management will take 21 semester hours of MBA core courses, 9 semester hours in the required Services Management courses and 6 hours of any MBA 600-level elective course.
Complete the following courses:
BUAD 670 World Class Service Management 3
MKTG 640 Service Marketing 3
OPTM 610 Customer Focused Processes: Quality Management and Metrics 3

Technology Management MBA – 9 hours
The development of technology continues to grow at an increasing rate both domestically and globally. Students completing this emphasis can expect to be prepared to function effectively in the many technology-based organizations in the business environment today. The technology management emphasis helps the student grasp and begin to master the complexities of managing both product technology and process technology.

Students who choose an area in Technology Management will take 21 semester hours of MBA core courses, 9 semester hours of the allowable Technology Management elective course and 6 hours of any MBA 600-level elective course.

Complete any three of the following:
BUAD 661 Managing Technology for Strategic Advantage 3
BUAD 671 Transforming Technology Organizations and Employees 3
BUAD 680 New Venture Management 3
OPTM 630 Managing Projects for Competitive Advantage 3

MBA Electives – 6 hours
Electives may be selected from the Area of Emphasis, providing any prerequisites have been met.

Distance MBA Program

The Graduate School of Business Administration offers MBA students the opportunity to earn their degrees from a distance. This program consists of 36 hours of course work delivered through web-based materials and communication among students and faculty. Students may be required to take up to 4 courses of MBA preparatory course work. For additional information on this program, please visit our web site at www.uccs.edu/mba or contact the MBA Advising

Office by phone at 1-800-990-8227, ext. 3408, or by e-mail at mba@uccs.edu. The online application is available on our web site.

Distance Technology Requirements

- Access to a Modern Operating System (Win 2K/ XP, Mac OS X)
- Minimum Hardware Recommendations –Pentium II or better, 128MB Ram, 28.8 Kbps modem (Broadband Preferred), VGA Monitor (800x600 resolution), Audio Card, and Speakers.
- Internet Explorer 6.0 or higher (Firefox, Netscape, or Opera are acceptable).
- MS Office Suite (2003 or higher preferred)
- Adobe Reader (8.0 or higher preferred)

MBA Distance Course Requirements

(All courses are offered on line.)

MBA Preparatory Courses

BCOM 559 Professional Business Communication 3
BUAD 559 Macroeconomics for Managers 3
BUAD 569 Business, Government and Society 3
QUAN 559 Fundamentals of Business Statistics 3

MBA Core Courses (21 hours)

ACCT 609 Contemporary Issues in Accounting 3
FNCE 609 Corporate Financial Management 3
INFS 609 Information Systems 3
MGMT 609 Leading and Managing in Changing Times 3
MKTG 609 Marketing Strategy 3
OPTM 609 Operations: Competing through Capabilities 3
BUAD 659 Strategic Management 3

Distance MBA Areas of Emphasis

(Distance) Finance MBA – 9 hours

All organizations, large and small, must effectively invest and manage their capital. The finance function is critical in both for-profit and not-for-profit organizations. Job opportunities exist for finance graduates in almost all industries including the financial services industry and positions within the finance area of corporations. Finance graduates manage capital for large organizations and their independent business units as well as small organizations.

Students who choose an area in Finance will take 21 semester hours of MBA core courses, 9 semester hours of Finance (FNCE) elective courses and 6 semester hours of any MBA 600-level elective course.

Complete the following courses:

FNCE 629 Investment Management and Analysis 3
FNCE 649 International Financial Management 3
FNCE 659 Managerial Economics and the Business Cycle 3

(Distance) General MBA – 15 hours

A General MBA allows the student to select 15 hours of any 600-level business courses based on individual educational goals and interests.

(Distance) Health Care Administration MBA –12 hours

The many changes in government laws and regulations, technology, societal needs and insurance plans have created a large need for administrative and business education for health care professionals.

Students who choose an area in Health Care Administration will take 21 semester hours of MBA core courses and 12 semester hours in the required Health Care elective courses and 3 semester hours of any MBA 600-level elective course.

Complete the following courses:

HCAD 619 Health Care Administration 3
HCAD 629 Health Care Policy 3
HCAD 639 Health Care Ethics and Law 3
HCAD 649 Health Care Budget and Finance. 3
HCAD 659 Clinical Research Application 3

(Distance) Homeland Defense MBA – 12 hours

Homeland Defense is an interdisciplinary program developed by the *Network Information and Space Security Center (NISSC)* with classes offered through the School of Public Administration, College of Letters, Arts and Sciences and the College of Business.

This area is designed to develop leaders in industry and government; the courses prepare students to develop homeland security and homeland defense strategies for their own organizations and manage relationships with the many diverse organizations working in this arena.

Students who choose an area of in Homeland Defense will take 21 semester hours of MBA core courses, 12 semester hours in the required Homeland Defense courses, and 3 hours of an MBA 600-level elective course.

Complete the following courses:

PAD 5950 Introduction to Homeland Defense. 3
PAD 5951 Interagency Relationship in Homeland Security and Homeland Defense 3
PSC 598 Understanding the Threat 3
INFS 682 Protection of Critical Infrastructures 3

(Distance) Information Systems MBA – 9–12 hours

Since the use of information technology is pervasive, all business students need a solid foundation in information systems to enable them to acquire increasing levels of sophistication in computer use. The continuous advances in technology and methodology for developing management information systems and decision support systems make the field an exciting and challenging area.

Students who choose an area in Information Systems will take 21 semester hours of MBA core courses and 9–12 semester hours in the required Information Systems (INFS) courses and 3–6 hours of any MBA 600-level elective course.

Complete the following courses:

(INFS 639 is a prerequisite course for INFS 649 and INFS

669; it may be replaced with an elective if prior programming courses or work experience is documented.)
INFS 639 Principles of Programming 3
INFS 649 Development of Information Systems 3
INFS 669 Database Principles 3
INFS 689 Telecommunication and Networking Principles 3

(Distance) International Business MBA – 9 hours
An emphasis in International Business will prepare students to excel in the International aspect of International Business. This field of study is becoming more relevant and important as the global economy expands.

Students who choose an area in International Business will take 21 semester hours of MBA core courses, 9 semester hours of the required International Business elective courses and 6 semester hours of any MBA 600-level elective course.

Complete the following three courses:
BUAD 699 Regional Business Environment: Europe . . . 3
INTB 619 Managing in Global Markets 3
FNCE 649 International Financial Management 3

(Distance) Management MBA – 9 hours
In today's highly competitive global environment, organizations are increasingly placing a premium on managers and employees who know how to motivate and lead people. This area addresses these issues and other contemporary issues in management, including how to deal with rapid change, delivery of excellent customer service, cross-cultural communication, and management of technology and innovation. Employees who have both technical and management skills will be most likely to achieve successful careers and attain greater job mobility and security.

Students who choose an area in Management will take 21 semester hours of MBA core courses and 9 semester hours of Management elective courses and 6 hours of any MBA 600-level elective course.

Complete 3 of the following 4 courses:
BUAD 669 Managing Technology for Strategic Advantage 3
BUAD 679 World Class Service Management 3
MGMT 629 Managing Organizational Change 3
MGMT 639 Managing Human Resources for Competitive Advantage 3

(Distance) Project Management MBA – 12 hours
Companies are turning to a project structure to manage the increasingly complex, cross-functional tasks present in today's business climate. As the number of both "successful" and "unsuccessful" projects continues to grow, the impact of project management on an organization is more visible. Students completing this area of emphasis can expect to master traditional project management skills and be prepared to manage in complex multiple project environments with a global reach.

Students who choose an area in Project Management will take 21 semester hours of MBA core courses and 12 semester hours of Project Management (OPTM) elective courses and 3 hours of any MBA 600-level elective course.
Complete the following courses:
OPTM 639 Managing Projects for Competitive Advantage 3
(OPTM 639 is a prerequisite course for the Project Management area of emphasis.)
OPTM 649 Organizational Skills for Project Management 3
OPTM 659 Project Estimation and Risk Management 3
OPTM 669 Bridging Strategy and Tactics in Project Management 3

(Distance) Technology Management MBA – 9 hours
The development of technology continues to grow at an increasing rate both domestically and globally. Students completing this emphasis can expect to be prepared to function effectively in the many technology-based organizations in the business environment today. The technology management emphasis helps the student grasp and begin to master the complexities of managing both product technology or process technology.

Students who choose an area in Technology Management will take 21 semester hours of MBA core courses, 9 semester hours of the allowable Technology Management elective course and 6 hours of any MBA 600-level elective course.

Complete the following courses:
BUAD 649 Transforming Technology Organizations and Employees 3
BUAD 669 Managing Technology for Strategic Advantage 3
OPTM 639 Managing Projects for Competitive Advantage 3

Graduate Certificates

Graduate certificates are available to students who have already completed a bachelor's degree (not necessarily in a business field) at a regionally accredited institution and have demonstrated their admissibility to the graduate program. Certificates are also available to students with a graduate degree from any field. The application process will vary based on the student's academic background. Students in the certificate program are subject to the same Standards of Performance as all admitted MBA students.

For additional information or an application for the certificate program, please contact the MBA advising office, or see the website: www.uccs.edu/mba.

Graduate certificates consist of 12–15 hours of course work beyond any prerequisites. Certificates are offered in accounting, business administration, finance, health care administration, information systems, international business, management, marketing, operations and technology management, project management, services management, and technology management. Certificates are available both on campus and online, but all certificates may not be available in both formats.

College of Education

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Columbine Hall, Room 3023
Telephone: (719) 262-4996
Fax: (719) 262-4110
uccs.edu/education

The College of Education (COE) prepares professional educators primarily for the Pikes Peak area, but also for southern Colorado, the State of Colorado and other states throughout the United States. The College is composed of hallmark programs developed through adherence to research-grounded and philosophical bases that have shaped various disciplines and emphasized best practice. Through these programs, the College of Education's students are well prepared to serve as skilled practitioners in classroom, administrative and human service environments.

We believe that our state-of-the-art preparation programs are based upon best practices within the context of a democratic society that has diverse needs, cultures, ideas and perspectives. The College of Education programs incorporate culturally responsive teaching and counseling tenets. The College's intent is that its graduates will be responsible advocates for change and adaptation and will be responsive to regional professional needs as well as those of an ever-changing global society. The College of Education promotes educational excellence, with positive and productive relationships with local school districts through partner schools and professional development schools.

Mission

The mission of the College of Education is to serve a diverse, inclusive citizenry of lifelong leaders/learners through the following:

- Unexcelled undergraduate and graduate professional programs that promote high standards of professional practice
- The development, implementation and expectation for the demonstration of the best research-based instructional practices in the preparation of professional educators
- The support of individual and collaborative research, creative work, professional development and service efforts within and outside the College and University that contribute to knowledge of best practice and student achievement
- An academic culture that supports and reinforces ethical and professional practice

Vision

The College of Education at UCCS will be the College of Education for the 21st century.

Accreditation

The College of Education's professional education programs are accredited by the North Central Association of Colleges and Secondary Schools, the National Council for the Accreditation of Teacher Education (NCATE), the Colorado Department of Education (CDE), the Colorado Commission on Higher Education (CCHE) and the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Faculty

Professors: Margaret Bacon, Carol de Casal, David Fenell, Nadyne Guzman, Mark Malone, La Vonne I. Neal, Beverly Snyder, Barbara Swaby; ***Associate Professors:*** Michael Brunn, Catherine Kelly, Al Ramirez, Randall De Pry; ***Assistant Professors:*** Larry Bryant, Dick Carpenter, Elaine Cheesman, Lindy Crawford, Clint Fisher, Barbara Frye, Christi Kasa-Hendrickson, Rhonda Williams; ***Instructors:*** Catharine Beecher, Laura Huber Marshall, Geralynn Olvey, Dallas Strawn.

Academic Advising

- Contact the Student Success Center Academic Advisor Bill Bannister, (719)262-3069 or bbanist@uccs.edu for initial appointment.
- Contact COE Student Services Coordinator Stacey Grady, (719)262-4526 or sgrady2@uccs.edu for COE updates and assignment of your COE faculty advisor.

Research Center

The College of Education Pikes Peak Educational Research Center (PPERC) is a regional center for school-based educational research, involving students, faculty and local schools.

Programs of Study

Elementary and Secondary Education: The College of Education offers initial preparation and recommendation for licensure at the undergraduate, post baccalaureate, and graduate levels for elementary or secondary education. Students participating at the graduate level may earn a Master of Arts degree in Curriculum and Instruction with additional coursework. The Curriculum and Instruction MA offers five tracks: General Curriculum and Instruction (C&I), Linguistically Diverse Education (LDE – formerly ESL), Leadership, Reading, and Science Education.

Special Education: COE provides initial preparation and recommendation for licensure in Special Education at the undergraduate or graduate level. Students participating at the graduate level may earn a Master of Arts degree in Special Education.

Counseling and Human Services: COE offers licensure preparation at the graduate level for school counseling or community counseling. Students completing the counseling

program earn a Master of Arts degree in Counseling and Human Services.

Student Affairs in Higher Education, and Counseling and Leadership: COE offers Graduate level programs earning an MA in Counseling, but not leading to licensure.

Educational Leadership: COE offers preparation and recommendation for licensure for the principalship at the graduate level. Students participating in the leadership program may earn a Master of Arts degree in Curriculum and Instruction with an emphasis in Leadership. A PhD program in Leadership, Research, and Policy is also offered by the department.

Linguistically Diverse Education (LDE) formerly ESL: COE offers preparation and recommendation for licensure at the undergraduate and graduate levels. Students participating at the graduate level may earn a Master of Arts degree in Curriculum and Instruction with additional coursework.

Reading: COE offers professional endorsement in Reading at the graduate level. Students participating in the Reading endorsement program may earn a Master of Arts degree in Curriculum and Instruction with an emphasis in Reading.

Teacher-In-Residence Program (TIRP): COE collaborates with the Pikes Peak Board of Cooperative Educational Services (PPBOCES) in offering a teacher-in-residence program (TIRP) This is an alternative licensure program for persons with extensive experience substituting, teaching, and working with students. For further information, contact Dr. Rob Danin.

Programs	Options	Licensure – TEP*, ALP** and SELP***	Endorsements	Master of Arts	Doctor of Philosophy
Counseling and Human, Services	Community Counseling Leadership, School Counseling, and Student Affairs in Higher Education	School and community licensure: graduate program		**MA: 4 tracks:** school counselors, mental health professionals, college professionals, and military personnel	
Curriculum and Instruction	Curriculum & Instruction, Educational Leadership, LDE, Principal and Administrator Licensure, Reading & Science Education	Principal licensure at graduate level	Reading endorsement at the graduate level	**MA: 5 tracks:** General C&I Leadership, LDE, Reading and Science Education	
Educational Leadership, Research and Policy	Educational Leadership	Principal Administrator (see C&I above)		**MA** (see C&I above)	**PhD:** Educational Leadership, Research and Policy
Elementary Education		Undergrad and graduate licensure		**MA** (see C&I above)	
Linguistically Diverse Education (LDE) (formerly ESL)		Undergrad and graduate licensure		**MA** (see C&I above)	
Secondary Education	English, Mathematics Science, Social Studies Spanish	Undergrad and graduate licensure		**MA** (see C&I above)	
Special Education		Undergrad and graduate licensure	Additional endorsement at the graduate level	**MA** in Special Education	

* ***Teacher Education Program (TEP) teacher licensure*** – Professional Licensure through the TEP requires two semesters of study plus one summer session and may be included as a part of a four-year degree program in the College of Letters, Arts and Sciences, or may be pursued after a Bachelor of Arts has been earned in a liberal arts program.

** ***Alternative Licensure Program (ALP) teacher licensure*** – Professional Licensure through the Alternative Licensure Program requires three semesters of study plus one summer session and may be pursued only after a Bachelor of Arts degree has been earned.

*** ***Special Education Licensure Program (SELP) teacher licensure*** – Professional Licensure through the undergraduate SELP allows all undergraduate teacher candidates to complete a content major within LAS and the generalist licensure area in special education in four years (124 credit hours); graduate students can receive their generalist special education licensure after completing 43 semester hours, and their Masters of Arts in Special Education upon completion of an additional 9 credit hours.

Extended Studies
Included within the College is the division of Extended Studies, which is the state approved enterprise that supports professional development, off-campus course offerings, and funded projects and initiatives.

COE General Academic Policies

For additional Undergraduate Program Policies, please refer to the General Information section of this *Bulletin*; for additional Graduate Program Policies, please refer to the Graduate School section of this *Bulletin*.

Academic Progress
Students must complete all courses taken for TEP and licensure with a grade of B- or better, and must meet the stated level of achievement on all levels of performance demonstration assessments.

Access to Teacher Education Courses
The following 300-level courses in teacher education may be taken by students who are at least at the sophomore level and are considering entering Teacher Education:
T ED 300 Contemporary American Education. 3
T ED 940 Independent Study. 1-6

The following 500 level course in teacher education may be taken by students who are considering entering one of the graduate teacher education courses:
T ED 500 Contemporary American Education. 3

All other T ED courses may be taken only by students who have been accepted into the TEP of the COE or who have received special permission from the TEP Director.

Changes of Program Requirements
Program requirements may change without notification due to changes in licensure standards or state statutes.

Computer Literacy Requirements
All students admitted into COE programs must demonstrate proficiency in computer literacy prior to graduation or completion of certification.

Extended Studies Coursework
Students may take graduate courses through Extended Studies in the pursuit of graduate study if they obtain prior academic approval from the major department and the dean.

Graduation Requirements
The *Bulletin* that governs a student's graduation requirements is the one in effect at the time of a student's most recent admission into the college of the student's degree program.

Graduation Procedures: Please contact the COE at the end of the semester prior to the intended semester of graduation for appropriate paper work. Failure to submit required graduation materials prior to the first day of classes in the semester of intended graduation may result in a delay of graduation.

Instructional Fees
Students enrolled in the following courses within the College of Education will be charged the following course fees:

COUN 502 Lab & Practicum in Individual Counseling $20
COUN 530 Lab & Practicum in Professional Counseling $20
COUN 511 Lab – Group Coun Skills Level $10
COUN 570 Internship in School Coun $100
COUN 572 Internship in Comm. Coun. $100
CURR 4101/5101 Intro Micros in Education Lab $25
CURR 4130/5130 Multimedia Development $25
CURR 4140/5140 Graphics Design $25
CURR 5017 Sch.Res. & Tchg. Sem., Elem. $25
CURR 5018 Sch.Res. & Tchg. Sem., Sec. $25
CURR 5019 Teaching Seminar – Elem $25
CURR 5020 Teaching Seminar – Elem $25
CURR 5153 Authoring $25
CURR 5170 Intro to Technology in Education $25
CURR 5171 K-12 Web-based Educational Resources $25
CURR 5172 Multimedia Development K-12 Education $25
CURR 5502 Developing Manipulative Materials for Science Teaching $10
CURR 5503 Integrating Reading and Science $10
CURR 5510 Science and Environmental Education for Gifted Students $10
CURR 5511 Teaching Energy and Environment $10
CURR 5512 Energy and Environmental Activities . . .$10
CURR 5513 Activities for Teaching Earth Science . . .$10
CURR 5514 Activities for Teaching Weather $10
CURR 5520 Activities for Teaching Physical Science . .$10
CURR 5521 Activities for Teaching Electricity and Magnetism $10
CURR 5530 Cutting-Edge Science for Cutting-Edge Teachers $10
CURR 5704 Practicum in ESL/ Multicultural Education $100
LEAD 682 Practicum: The Principalship $100
LEAD 688 Practicum in Central Office Leadership & the Superintendency $100
SPED 3004/5004 Self-Determination & Transition . . .$35
SPED 4011/5011 Assessment & Instructional Monitoring $35
SPED 4013 Direct Instruction Practicum $100
SPED 4021/5021 Positive Behavioral Intervention & Support $35
SPED 4030/5030 Elementary/Secondary Internship $100
SPED 4031/5031 Elementary/Secondary Student Teaching $100
T ED 374 Practicum in ESL/ Multicultural Education $100
T ED 460/560 School Experience –Elem. $25

TED 463/563 Student Teaching – Elem.. . . . . $100
T ED 464/564 Elem. Math Methods $25
T ED 465/565 Elementary Science Methods $25
T ED 470/570 School Experience –Sec $25
T ED 473/573 Student Teaching – Sec. $100
NOTE: Fees listed above are based on the best information available at the time of publication. Actual fees may differ.

Transfer Credit

All work accepted by transfer must come within a six-year time limit or be validated by special examination. College work more than seven years old may not count or may require updating, especially in the teaching field, counseling, and in professional education.

Credits transferred from other institutions to the University of Colorado will be limited to the type and amount of credit given for similar work in the University of Colorado. Course work completed at another CU campus will most likely transfer.

Work already applied toward a Master's degree received at another institution cannot be accepted for transfer toward a Master's degree at the University of Colorado; extension work completed at another institution cannot be transferred; and correspondence work, except to make up deficiencies, is not recognized.

Credit will not be transferred until the student has established, in the Graduate School of this University, a satisfactory record of at least one semester in residence. To be eligible for courses to be considered for transfer, a student must have an overall B average in all courses taken at the University of Colorado in Graduate School.

Transferred credit will not reduce the residency requirement at this University, but it may reduce the amount of work to be done in formal courses.

Excess undergraduate credits from another institution may not be transferred to the Graduate School.

Seniors in this University may, however, transfer a limited amount of advanced resident work (up to 9 credit hours) to a graduate program provided such work:

- Is completed with distinction in the senior year at this University
- Comes within the six-year time limit
- Has not been applied toward another degree
- Is recommended for transfer by the department concerned and is approved by the dean of the Graduate School.

Transfer Credit: Unclassified Students

A COE department may recommend to the graduate dean the acceptance of as much as 9 hours of credit toward the requirements for a master's degree for courses taken either as a student at another recognized graduate school, as an unclassified student at this University, or both.

Unclassified Students Graduate Programs

Many persons professionally engaged in education feel the need to update their competence or are required to complete a specified amount of graduate study for certificate renewal, advancement in salary, change of assignment, or the like. If they are not interested in earning a graduate degree, they should apply to the UCCS Office of Admissions (not the COE) for admission as University unclassified students. Upon admission they may enroll and, after completing the term, receive an official record of work completed. They may confer with COE faculty about courses in which to enroll.

College of Education Admission Requirements

Undergraduate Programs

Admission processes for TEP, ALP and SELP are detailed within these individual program descriptions.

Graduate Programs

An interview with at least one faculty member prior to applying is required.

Prerequisites

In addition to the general requirements of the UCCS Graduate School, the student admitted to regular graduate standing in the College Of Education must meet the following requirements:

- Satisfactory Graduate Record Examination (GRE) or Miller Analogies Test (MAT) scores. Special Education does not require GRE or MAT tests.
- An undergraduate GPA of 2.75 or higher on a 4.0 scale for regular admission. Occasionally students with an undergraduate grade point of 2.74 or below may be admitted provisionally if other factors warrant acceptance. These may include marked improvement in upper division work compared with lower division work, high GRE or MAT scores, excellent references from paid or volunteer work experiences relating to the area of proposed graduate study, and/or well articulated verbal and written statements of goals. A student who seeks admission but does not have an acceptable grade-point average may take graduate course work as an unclassified student to demonstrate ability to do graduate work. A maximum of 9 transfer credits may apply toward the degree.

Preference will be given to students who have a sound program of undergraduate work in the liberal arts and in a teaching field, a valid teaching certificate, and teaching experience (with the exception of counseling students).

Transfer Students

Students transferring from accredited collegiate institutions must meet the same requirements as students entering teacher education. Formal application along with the required documentation must be made both to the University and to the COE within the stated deadlines. See also Transfer Credit under Academic Policies above.

Teacher Education

Licensure and Endorsement General Requirements

All students in initial teacher education programs must pass specific required tests prior to licensure. Elementary, secondary, and special education licensure candidates must pass the PRAXIS II or PLACE Content Test prior to student teaching. Special Education licensure candidates must also pass appropriate PLACE tests. Students should request specific information from the COE.

The Licensing Act of 1991 requires the completion of a background check. All students admitted into licensure programs must pass a background check as a condition of admission. Students should request specific information from the COE.

Provisional Licensure Opportunities

Undergraduate Programs: Students acquire licensure to teach through the Teacher Education Program (TEP) and the Special Education Licensure Program (SELP). TEP and SELP coursework for undergraduates is included as a part of a four-year degree program in the College of Letters, Arts, and Sciences (LAS). Initial licensure through TEP, elementary or secondary, requires two semesters of study during the "professional" college year, plus one to four courses during the prior summer session for Elementary and two to four courses for Secondary, and additional course work before the "professional" year begins.

Graduate Programs: TEP licensure may also be pursued after a bachelor of arts degree has been earned in a liberal arts program. This program is a one year program and requires a bachelor's degree to be accepted.

The Alternative Licensure Program provides training for initial licensure for secondary only. Students must have a bachelor's degree to apply.

SELP licensure may also be pursued after a bachelor of arts degree has been earned in a liberal arts program. This program is a one year program and requires a bachelor's degree to be accepted.

Principal Licensure and Administrative Licensure are provided as a graduate program.

Additional Endorsements

Certified/Licensed teachers seeking an additional teaching area endorsement to an existing credential should see a TEP or LDE adviser to determine the requirements. Special programs can be developed to meet the requirements. The appropriate area of the PRAXIS II or PLACE Content Test is required.

The Teacher Education Program (TEP)

The Teacher Education Program (TEP) leads to initial licensure in elementary teaching or in secondary teaching in the fields of English, foreign language (Spanish), mathematics, science, or social studies.

Students who wish to enter the TEP should request information from the COE office or from the Education Advisor in the Student Success Center during the freshman year, if possible. Undergraduate students planning on either elementary or secondary education licensure must complete an undergraduate degree in the College of LAS as well as the TEP requirements. Students with undergraduate degrees from an accredited institution must meet similar requirements.

Students who have obtained their bachelor's degree may apply to the TEP, either to the post-baccalaureate study or the TEP/Master's program (MA in Curriculum & Instruction).

Before applying to enter the program, students must attend a group-advising meeting for a full explanation of the nature of the program and the admission process.

TEP Program Description

Central features of the TEP are the integration of education courses with field experiences. The program requires students to have experiences with diverse populations and in diverse settings. In addition to the requirements for an undergraduate bachelor's degree, TEP students complete education studies consisting of an Introductory Level (First Tier) and Professional Level (Second Tier).

The professional year preparation portion of the program is full-time (fall and spring), consisting of 27 credit hours. Students participate in the professional year as a cohort group; they begin the professional year with one course in the summer, completing the program the following spring semester. The 35-38 credit-hour professional year requirement consists of course work (foundations of education, educational psychology, curriculum, and methods) and field experiences (observations, co-teaching, and student teaching) that take place in Professional Development Schools (PDS).

TEP Students complete field experiences and student teaching in an assigned Professional Development School (PDS); these are regular elementary, middle, or high schools that are selected to work in partnership with the University to prepare teachers for licensure. Each PDS supports the development of student teachers through co-teaching, research and inquiry, and professional development for in-service teachers.

Additional coursework may be required to meet all of the program requirements.

All courses taken for completion of TEP and licensure must be completed with a grade of B- or better, and the stated level of achievement must be met on all levels of performance demonstration assessments.

TEP Admission Requirements

Admission to the TEP is a selective process. Students are admitted twice a year, in November and April.

TEP Required Tests

PRAXIS II or PLACE Content Test must be taken no later than the June test date prior to beginning TEP.

All students admitted to the TEP at UCCS, whether undergraduate or graduate, must take the **Academic Profile Test** before beginning the Professional Year (Second Tier).

Additional testing requirements may need to be met. It is essential to keep in contact with the COE and the Student Success Center to learn what these requirements may be.

Test dates are available in the COE.

TEP Transfer Credit

A maximum of 10 credit hours of education credit may be transferred to the TEP. The TEP Director will determine transfer of education credit.

Undergraduate TEP Admission

The undergraduate program has an admission process beyond the admission requirements of the University. Interested students should attend an undergraduate group advising session before applying.

Undergraduate students apply to the TEP at two levels:

- First Tier Introductory level
- Second Tier Professional level

First Tier Prerequisites/requirements:

- Appropriate content courses for major
- GPA 2.5 or better in all course work
- Appropriate level SAT or ACT scores
- Completion of the following core courses before applying to the First Tier:

T ED 300 Contemporary American Education. . . 3

T ED 301 Early School Experience Practicum . . 1-3

OR 45 hours of early school experience

- Upper division status or consent of TEP Director

First Tier Application Process

- Application deadlines: October 1 for spring admission; February 1 for summer admission; and May 1 for fall admission.
- References: Two references from teacher(s) with whom applicant worked in T ED 301 or early school experience.
- Background check with CDE

First Tier Required Course Work:

T ED 452 Educational Psychology 3

SPED 3001 Introduction to Special Education . . . 3

Second Tier Prerequisites/ Requirements

- Additional experience with children or youth
- Additional reference (a minimum of 1, a maximum of 3)
- Completion of or enrollment in core courses (T ED 452 and SPED 3001) from First Tier
- Current GPA: 2.5 or better in all college course work

Second Tier Application Process

- Application Deadlines: Fall – October 1, Acceptance – November 1; Spring – February 1, Acceptance – April 1.
- Career Goals Statement (describing motivation, interest, decision, and personal qualities)
- Interview with COE team

Second Tier Required Course Work

The Second Tier Professional Year has a set sequence of required courses over three semesters, from June to May: 27 credit hours for Secondary; 31 credit hours for Elementary.

Post-Baccalaureate and Graduate TEP Admission

Students who wish to enroll in the TEP and have already earned their bachelor's degree may apply either to the Post-Baccalaureate program or to the TEP/Master's degree program.

Process

- Attend Group Advising Session
- Individual transcript review during advising appointment
- Application
- Interview

Deadlines

- Fall: Deadline to apply — October 1; Acceptance — November 15
- Spring: Deadline to apply — February 1; Acceptance — April 1

TEP Prerequisites/ Requirements

- Appropriate courses for major and level in order to meet content requirements for licensure. A checklist will be completed by the appropriate TEP content advisor.

Post-Baccalaureate & Graduate Selection Criteria

- Academic Degree completed or nearly completed
- GPA of 2.75 or better
- Experience with children and youth (45 hours)
- Recommendations (TEP – minimum of 3, maximum of 5) and graduate school references (minimum of 2)
- Career Goals Statement (describing motivation, interest, decision, and personal qualities)
- must complete GRE or MAT
- Timeline submitted for completion of prerequisites (TEP checklist)
- Completion of, enrollment in, or timeline for completion for all core courses:

  T ED 3001/5001-3 Contemporary American Education

SPED 300/500-3 Introduction to Special Education

T ED 452/552-3 Educational Psychology T ED 480/580 ESL for Educators

- Background check (CDE Educator Licensing)

Post-Baccalaureate & Graduate Required Tests
Completion of the **PRAXIS II or PLACE Content Test** with satisfactory scores. Applicants should plan to take the PRAXIS II or PLACE Content Test on the test dates in fall or spring prior to applying to the program. If PRAXIS II or PLACE Content Test has not been taken by application date, the candidate must furnish a copy of the confirmation of Registration for the test.

PRAXIS II or PLACE Content Test must be passed prior to student teaching.

All students admitted to the TEP at UCCS, whether undergraduate or graduate, must take the **Academic Profile Test** before beginning the Professional Year (Second Tier).

TEP Course Requirements for Elementary Education, Undergraduate Students

The specific course requirements for elementary education students fall into three categories: (1) general education, (2) subject specialization, and (3) professional courses.

General Education

Students should see the LAS undergraduate requirements list for the roster of courses that will fulfill the **area requirements** for the 12 credit hours in each of the three areas of general education: Humanities, Social Sciences, and Natural Sciences (including a laboratory experience).

Mathematics: two courses in mathematics, MATH 301 and 302, are required. Students must receive a grade of at least a C in each course.

English Language: All students must complete English 131 – Rhetoric and Writing I and English 141 – Rhetoric and Writing II.

Subject Specialization for Elementary Education Students

To ensure that they have adequate background in the subjects they will teach in elementary school, undergraduate students interested in elementary education must complete a major in an academic subject area. Approved majors for elementary teachers are English, geography, history, biology, and Spanish. Students must meet LAS requirements. The LAS adviser will assist students in this process. Completion of a major does not meet all the teaching field requirements. Students must see the subject field advising sheets for the specific certification field requirements.

Professional Courses for Elementary Education Students

Required Core Courses
T ED 300 Contemporary American Education. 3
T ED 301 Early School Experience. 3
T ED 452 Educational Psychology 3
SPED 3001 Intro. to Special Education 3

Required Professional Courses
T ED 441 Elementary Writing Methods. 1
T ED 460 Elementary School Experience 3
T ED 457 Elementary Literacy Methods 3
T ED 458 Elementary Curriculum, Instruction, & Classroom Management 2
T ED 462 Elementary Reading Methods 3
T ED 463 Elementary Student Teaching 3-14
T ED 464 Elementary Mathematics Methods 3
T ED 465 Elementary Science Methods 2
T ED 466 Elementary Social Studies Methods 1

Licensure Only (This course must be taken in addition to the above listed requirements)
TED 480 LDE for Educators 3

TEP Course Requirements for Elementary Education, Graduate (Masters Track) Students

Required Core Courses
T ED 500 Contemporary American Education. 3
T ED 501 Early School Experience. 3
T ED 552 Educational Psychology 3
T ED 580 LDE for Educators 3
SPED 5001 Intro. to Special Education 3
Required Professional Courses
T ED 541 Elementary Writing Methods. 1
T ED 560 Elementary School Experience 3
T ED 557 Elementary Literacy Methods 3
T ED 558 Elementary Curriculum, Instruction, & Classroom Management 2
T ED 5462 Elementary Reading Methods. 3
T ED 563 Elementary Student Teaching 3-14
T ED 564 Elementary Mathematics Methods 3
T ED 565 Elementary Science Methods 2
T ED 566 Elementary Social Studies Methods 1

TEP Course Requirements for Secondary Education, Undergraduate Students

The specific course requirements for undergraduate secondary education students fall into three categories: (1) general education, (2) subject specialization, and (3) professional courses.

General Education

Students should see the LAS undergraduate requirements list for the roster of courses that will fulfill the **area requirements** for the 12 credit hours in each of the three areas of general education: Humanities, Social Sciences, and Natural Sciences (including a laboratory experience).

Quantitative: three credit hours

English Language: All students must complete English 131 – Rhetoric and Writing I and English 141 – Rhetoric and Writing II.

Subject Specialization for Undergraduate Secondary Education Students

Secondary students must complete a major in their field. This may be in an individual discipline (e.g. English, history, biology, physics, chemistry, Spanish, or mathematics).

Individual requirements for licensure in particular subject areas are available with either LAS or COE advisers. Completion of a major does not meet all the teaching field requirements. Students must see the subject field advising sheets for the specific certification field requirements.

Required Undergraduate Secondary Teacher Education Courses

Undergraduate Core Courses

T ED 300 Contemporary American Education. 3
T ED 301 Early School Experience. 3
T ED 452 Educational Psychology 3
SPED 3001 Intro. to Special Education 3

Undergraduate Professional Courses

T ED 470 Secondary School Experience 2-6
T ED 471 Methods for Secondary Education. 1-3
T ED 472 Teaching Reading & Writing in the Content Areas 3
T ED 473 Secondary Student Teaching 3-14
T ED 479 Secondary Curriculum, Instruction, & Evaluation 3
And one of the following:
T ED 491 Secondary English Methods 3
T ED 492 Secondary Mathematics Methods 3
T ED 493 Secondary Science Methods 3
T ED 494 Secondary Social Studies Methods. 3
T ED 495 Secondary Spanish Methods 3

Licensure Only (This course must be taken in addition to the above listed requirements)

TED 480 LDE for Educators 3

TEP Course Requirements for Secondary Education, Graduate (Master's Track) Students

Required Core Courses

T ED 500-3 Contemporary American Education 3
T ED 501-3 Early School Experience 3
T ED 552-3 Educational Psychology. 3
T ED 580-3 LDE for Educators. 3
SPED 5001-3 Intro. to Special Education 3

Required Professional Courses

T ED 570 Secondary School Experience 2-6
T ED 571 Methods for Secondary Education. 1-3
T ED 572 Teaching Reading & Writing in the Content Areas 3
T ED 573 Secondary Student Teaching 3-14
T ED 579 Secondary Curriculum, Instruction, & Evaluation 3
And one of the following:
T ED 591 Secondary English Methods 3
T ED 592 Secondary Mathematics Methods 3
T ED 593 Secondary Science Methods 3
T ED 594 Secondary Social Studies Methods. 3
T ED 595 Secondary Spanish Methods 3

The Alternative Licensure Program (ALP)

The Alternative Licensure Program (ALP) offers students who already have their bachelor's degree the opportunity to obtain teacher licensure at the secondary level. The ALP student serves as a resident teacher/learner for an entire school year, having full classroom responsibility, with supervision and assistance from a support team from the University and the district. While the COE will help market ALP candidates, students must obtain their own resident teaching positions. The program emphasizes a commitment to working with at-risk students.

The professional preparation program in ALP is a twelve month program of three semesters: summer, fall, spring. Classes during the summers are held both during the day and evenings. Classes during the fall and spring semesters are held in the evenings and/or Saturdays. All of the classes consist of a combination of professional coursework, including foundations of education, educational psychology, curriculum and content methods, classroom management and instruction, and resident teaching. Secondary ALP requires 30 credit hours to complete the licensure portion of the program.

The ALP leads to initial teacher licensure. Coursework from the ALP may be used as a part of the Master of Arts in Curriculum and Instruction. Students who pursue the master's degree apply 33 credit hours from the ALP coursework. The MA degree requires six additional credit hours of Research Methods CURR 5001-3 and a research paper/project for three hours of credit.

Alternative Licensure Program Admission Requirements

Admission to the Alternative Licensure Program is a selective process. Before applying to enter the ALP, students should attend a group-advising meeting for a full explanation of the program and the admission process.

Prerequisites

- An undergraduate degree
- Ability to meet CDE subject area review requirements

Application Process

- Students must submit the ALP application packet, which includes the standard graduate application process for the COE.
- A complete application includes records (transcripts) of all previous work, a career goals statement, references, and evidence of experience with children and youth.
- Deadline for application: February 1
- Individual interviews are scheduled for applicants during the spring semester.

Admission Criteria

- Past academic record, including a GPA of 2.75.
- Personal commitment and motivation for teaching, ability to adapt quickly to the school setting, and capability of completing a rigorous fast-paced program, as determined by an interview, the career goals statement, and the quality of the candidate's references.
- Experiences with children and youth.
- Individual interview with a team of professional educators.

ALP Secondary Education Program Requirements

Students planning to work toward secondary teaching licensure (grades 7-12) in English, social studies, science, Spanish, or mathematics, must complete the following requirements:

ALP Secondary Education General Requirements

- Confirmation by the CDE after a transcript review as having the necessary knowledge of the subject matter to teach in the appropriate endorsement area (generally a major in the endorsement area)
- Validation of this content knowledge by successful completion of the PRAXIS II Content Test or PLACE test (for Spanish).

ALP Secondary Education Professional Course Requirements

Licensure Only (No Master's Degree)

T ED 500 Contemporary American Education. 3
T ED 552 Educational Psychology 3
T ED 580 LDE for Educators 3
SPED 5001 Intro. to Special Education 3
Professional Courses
CURR 5014 Secondary Instruction and Classroom Management Strategies I 3
CURR 5016 Secondary Instruction and Classroom Management Strategies II 3
CURR 5018 Secondary Resident Teaching & Seminar . . 3
CURR 5020 Secondary Resident Teaching & Seminar . . 3
CURR 5400 Secondary Reading & Writing in the Content Areas. 3
And one of the following:
CURR 5491 Secondary English Methods 3
CURR 5492 Secondary Mathematics Methods. 3
CURR 5493 Secondary Science Methods 3
CURR 5494 Secondary Social Studies Methods 3
CURR 5495 Secondary Spanish Methods. 3

Licensure with Masters Degree

T ED 500 Contemporary American Education. 3
T ED 552 Educational Psychology 3
T ED 580 LDE for Educators 3
SPED 5001 Intro. to Special Education 3
Professional Courses
CURR 5014 Secondary Instruction and Classroom Management Strategies I 3
CURR 5016 Secondary Instruction and Classroom Management Strategies II 3
CURR 5018 Secondary Resident Teaching & Seminar . . 3
CURR 5020 Secondary Resident Teaching & Seminar . . 3
CURR 5400 Secondary Reading & Writing in the Content Areas. 3
LEAD 570 Intro. to Research & Statistics 3
CURR 5090 Masters Research Project. 3
And one of the following:
CURR 5491 Secondary English Methods 3
CURR 5492 Secondary Mathematics Methods. 3
CURR 5493 Secondary Science Methods 3
CURR 5494 Secondary Social Studies Methods 3
CURR 5495 Secondary Spanish Methods. 3

Special Education Licensure Programs (SELP)

The Special Education Licensure Program (SELP) provides professional preparation for undergraduate and graduate students as special education teachers; the program features exemplary teaching, scholarship, and community service for the purpose of increasing the quality of life for individuals with disabilities.

The Special Education Program offers courses leading to licensure or additional endorsement in special education. A non-licensure option is also available. Application packets are available from the COE. The Master of Arts degree in Special Education is also available; see COE Graduate Programs section for further information on the MA in Special Education.

Special Education Licensure Program (SELP): Undergraduate

The COE, in collaboration with the College of LAS has adopted a program of study that allows undergraduate teacher candidates to major in one of five content areas: biology, English, geography, history, or Spanish. Students who are accepted into the undergraduate special education program will choose their undergraduate major and complete degree-related coursework (80 credit hours), and complete core coursework in special education (44 credit hours) in the generalist licensure endorsement. The undergraduate SELP allows all teacher candidates to complete a content major within LAS and the generalist licensure area in special education in four years (124 credit hours).

SELP Undergraduate Required Curriculum

Required Undergraduate SPED Tier Generalist Core Classes

Tier 1

SPED 3001 Introduction to Special Education 3
SPED 3002 Professional Seminar in Special Education . . 3
SPED 3003 Classroom and Instructional Management . . 3
SPED 3004 Self-Determination and Transition 3
SPED 4010 Multisensory Structured Language Education 3

Tier 2
TED 452 Educational Psychology 3
SPED 4011 Assessment and Instructional Monitoring . . 3
SPED 4012 Differentiated Learning 3
SPED 4013 Direct Instruction Practicum 3
Tier 3
SPED 4020 Significant Support Needs 3
SPED 4021 Positive Behavioral Intervention and Supports 3
SPED 4022 Consultation and Collaboration 3
Tier 4
SPED 4030 Elementary/Secondary Internship 3
SPED 4031 Elementary/Secondary Student Teaching . . 4
Total Credit hours 44

Required Special Education Student Teaching
Students seeking licensure will participate in student teaching at the completion of their generalist licensure special education program. Students MUST complete one 16 week student teaching experience at either the elementary or secondary level. This placement may only be completed during fall or spring semester.

Paraprofessionals. Students who are employed as special education paraprofessionals may complete their student teaching experience at their place of employment. The special education teacher and principal must agree that opportunities are available to you to complete the course competencies with students in your classroom.

Required Special Education Student Internship
Students seeking licensure will participate in an internship at the completion of their generalist licensure special education program. Students MUST complete the equivalent of a 16 week internship experience at the opposite level in which they did their student teaching (elementary or secondary level). This placement may be completed in summer session.

Students must complete their student teaching and internship within a 50 mile radius of the UCCS main campus.

Special Education Licensure Program (SELP): Graduate

Students who are accepted into the graduate special education program receive their Generalist licensure after completing 43 semester hours. They receive their Masters of Arts in Special Education when they have completed an additional 9 credit hours for a total of 52 credits.

SELP Graduate Admission Process

- Request a graduate application and information packet from the COE.
- Schedule an appointment with a special education faculty member to develop a graduate plan.
- Application deadlines: Spring Semester – October 15; Summer Semester – April 1; and Fall Semester – June 15.

SELP Graduate Curriculum Requirements

Graduate SPED Tier Generalist Core Classes
Tier 1
SPED 5001 Introduction to Special Education 3
SPED 5002 Professional Seminar in Special Education . . 3
SPED 5003 Classroom and Instructional Management . . 3
SPED 5004 Self-Determination and Transition 3
SPED 5010 Multisensory Structured Language Education 3
Tier 2
TED 564 Elementary Mathematics Methods 3
SPED 5011 Assessment and Instructional Monitoring . . 3
SPED 5012 Differentiated Learning 3
CURR 5410 Informal Diag./Remediation of Reading Difficulties 3
Tier 3
SPED 5020 Significant Support Needs 3
SPED 5021 Positive Behavioral Intervention and Supports 3
SPED 5022 Consultation and Collaboration 3
Tier 4
SPED 5030 Elementary/Secondary Internship 3
SPED 5031 Elementary/Secondary Student Teaching . . 4
Total credit hours for licensure 43

Additional Masters Degree Requirements
LEAD 570 Introduction to Research and Statistics 3
SPED 5090 Applied Research Project 3
SPED 5091 Current Topics in Special Education 3
Total Credit Hours for Initial Licensure and MA in Special Education 52

Special Education Student Teaching
Students seeking licensure will participate in student teaching at the completion of their generalist licensure special education program. Students MUST complete one 16 week student teaching experience at either the elementary or secondary level. This placement may only be completed during fall or spring semester.

On-the-Job (OJT) Student teaching: Students who are employed as teachers and hold a current Temporary Teaching Endorsement (TTE) may complete the OJT 16-week student teaching experience. OJT teachers must work with special education students and be evaluated by a district special education supervisor.

Paraprofessionals: Students who are employed as special education paraprofessionals may complete their student teaching experience at their place of employment. The special education teacher and principal must agree that opportunities are available to you to complete the course competencies with students in your classroom.

Special Education Student Internship
Students seeking licensure will participate in an internship at the completion of their generalist licensure special education program. Students MUST complete the equivalent of a 16 week internship experience at the opposite level in which they did their student teaching (elementary or second-

ary level). This placement may be completed in summer session. A student teacher who participated in the OJT student teaching option must do their internship in another educational setting. Paraprofessionals who do their student teaching at their place of employment must do their internship in another educational setting.

Students must complete their student teaching and internship within a 50 mile radius of the UCCS main campus.

Principal Licensure/Administrator Licensure

The Curriculum of the Educational Leadership Program has been structured to ensure the appropriate theoretical and professional development of school leaders. The program is designed for individuals who seek Principal or Administrator Licensure through the CDE, or for individuals who wish to serve as non-administrator leaders in the schools and school community. Specific eligibility requirements for licensure should be discussed with a faculty advisor prior to enrollment. The Educational Leadership Program's underlying philosophy is that quality instructional leaders, whether classroom teachers or administrators, are essential to effective schools.

The curriculum of the program has been aligned with the requirements of the CCHE and CDE, the Colorado standards for principal and administrator licensure, the NCATE Curriculum Guidelines, and the ELCC Professional Standards for School Leaders.

Principal and Administrator Licensure Outcomes

- The principal models and sets high standards to ensure quality learning experiences that lead to success for all students.
- The principal behaves ethically and creates an environment that encourages and develops responsibility, ethics, and citizenship in self and others.
- The principal recognizes, appreciates, and supports ethnic, cultural, gender, economic, and human diversity throughout the school community while striving to provide fair and equitable treatment and consideration for all.
- The principal is a continuous learner who encourages and supports the personal and professional development of self and others.
- The principal organizes and manages human and financial resources to create a safe and effective working and learning environment.

Principal Licensure

To be eligible for the Principal Licensure program, an individual must have the following:

- Eligibility for the MA in Curriculum and Instruction with an emphasis in Educational Leadership
- Documented successful experience as a licensed professional in education
- Demonstrated motivation and involvement in leadership activities
- Field recommendations

Principal licensure with an MA degree in Curriculum and Instruction requires 42 credit hours of coursework. Individual exceptions can be discussed for students with extended previous coursework.

Administrator Licensure

To be eligible for the Administrator Licensure program, an individual must have the following:

- MA degree from an accredited institution
- Demonstrated motivation and involvement in leadership activities
- Field recommendations
- Completion of an approved Principal Licensure program.

Individual questions about these criteria should be discussed with a faculty advisor.

Administrator Licensure requires nine credit hours beyond the Principal Licensure. Individual exceptions can be discussed for students with extended previous coursework.

Master of Arts – Curriculum and Instruction (C&I)

The Master of Arts degree (MA) in Curriculum and Instruction (C&I) is primarily designed for licensed, practicing teachers who desire to continue developing their professional expertise. The program is also open to students in the ALP or the master's level TEP, previously described in detail, who may use selected coursework as part of their degree plan.

The College offers a master of arts degree with five possible areas of emphasis, including the General C&I Emphasis, Linguistically Diverse Education Emphasis (LDE – formerly ESL), Leadership Emphasis, Reading Emphasis, and Science Education Emphasis. A minimum of 30 credit hours of coursework is required for the degree. Some emphasis areas require more hours.

Most courses in this master's degree program emphasize the application of electronic technology in teaching. Students entering the program must be proficient in using electronic technology in C&I. Students who do not have adequate skills in word processing, accessing the Internet, sending and receiving e-mail, and making electronic presentations, etc. are advised to seek out remedial training before beginning the program.

The College of Education also offers an online option for the MA in Curriculum and Instruction.

MA in C&I Outcomes

- Students will clearly demonstrate a functional knowledge of the past/current research on the target issue by developing and writing an extensive review of current literature.

- Students will be able to promote and model excellence in their profession by comprehensively reviewing, analyzing, and discussing knowledge of best practices in their field of study and by analyzing and discussing the current research in their fields, both in the written document and in the Power Point presentation.
- Students will be able to apply the knowledge and skills gained in their program of study toward advancement in their current positions or pursuit of a new position.

C&I Required Core Courses

All C&I Master's degree students complete a core of work that asks them to do the following:

- Examine educational issues from the perspective of their social context
- Become intelligent consumers of research and apply research to their instructional settings

To this end the degree requires these core courses:

CURR 5002 Issues, Strategies and Models to Curriculum Design 3
LEAD 560 Social Foundations of Education Trends 3
LEAD 570 Introduction to Research & Statistics 3
CURR 5090 Research Project (To be taken at the end of the degree program. Replaces comprehensive exams) 3

MA in C&I – General Curriculum and Instruction Emphasis

The General C&I Emphasis is designed for students with broad interests in the field of education as opposed to those who wish to concentrate in a particular area of the curriculum. Students will complete the Core Course requirement (above), select a cognate field that allows concentration of their coursework in an area of instruction in which they wish to develop their expertise, and select electives from other areas of the school curriculum to pursue a broad array of interests.

MA Core Courses – 12 credit hours (see above)

Cognate Fields – 9 credit hours

Students may choose their cognate field from the following areas: Counseling and Human Services, Gifted and Talented Education, Leadership, Mathematics, Reading, Science Education, Special Education, Educational Technology, and Linguistically Diverse Education (LDE) formerly ESL.

Electives — 9 credit hours

The 9 credit hours of elective courses may come from either the COE or the College of LAS.

MA in C&I – Linguistically Diverse Education (LDE) Emphasis

The Master of Arts program in Linguistically Diverse Education (LDE, formerly English as a Second Language) is designed primarily for teachers who wish to improve their effectiveness with English Language Learners or to become leaders in the field of LDE. The program is appropriate for teachers at all levels (K-12) who wish to learn more about applying contemporary LDE teaching strategies in their schools.

General Requirements

The LDE program requires a total of 30 credit hours of coursework. A master's project is required.

MA in C&I – Leadership Emphasis

This master's degree program is combined with the program for principal licensure.

General Requirements

The program requires 42 credit hours of coursework. Requirements for completion of the program include a prescribed portfolio (described in the student handbook) and a final research paper.

Required Core Courses

LEAD 502 Vision, Values, and Leadership in a Democratic Society 2
LEAD 604 Developing Collaborative School Communities 2
LEAD 525 Creative Communications for School Leaders 2
LEAD 570 Introduction to Research and Statistics 3
LEAD 516 Curriculum Leadership in a Multicultural Society 2
LEAD 522 Program Evaluation and Curriculum Assessment 2
LEAD 523 Action Research Lab 1
LEAD 524 Leadership and Management of Programs for Special Populations 1
LEAD 614 Supervision and Evaluation of Instruction . . 3
LEAD 700 Master's Research Lab 3
LEAD 507 Human Resources Development 3
LEAD 640 Legal Issues for School Leaders 3
LEAD 605 Financing Schools and Programs 3
LEAD 612 Educational Politics in a Democratic Society 3
LEAD 560 Social Foundations of Educational Trends . . 3
LEAD 545 The Principalship 3
LEAD 682 Practicum in School Leadership: The Principalship 3

MA in C&I – Reading Emphasis

General Requirements

The MA in C&I with a Reading Emphasis requires 40 credit hours. Of these, 33 credits (11 courses) are core requirements and seven credits (2 courses) are practicum experiences. The coursework culminates in a research project that investigates a specific question related to literacy, analyzes the relevant data, and comes to a conclusion that may be useful in the practical instruction of reading.

Course Requirements

Core Courses

CURR 5401 Teaching Reading in the Elementary School 3
CURR 5410 Diagnosis and Remediation of Reading Difficulties 3
CURR 5400 Teaching & Writing in Content Areas 3
CURR 5412 The Reading Writing Connection 3
CURR 5420 Literature for Children and Adolescents . . . 3
CURR 5413 Developing and Implementing Literacy Programs 3
CURR 5403 Introduction to Clinical Experiences 3
CURR 5701 Methods and Materials in ESL/Multicultural Education 3
CURR 5411 Psycholinguistics and Reading 3
CURR 5001 Introduction to Research and Statistics . . . 3
CURR 5090 Research Project 3
Total: 11 courses/ 33 credits

Required Practice

CURR 5430/31 Reading Clinic Procedures: Supervised Practicum I 4
CURR 4532/33 Practicum 11: Field Based Practicum in Reading 3
Total: 2 courses/ 7 credits

MA in C&I – Science Education Emphasis

The Master of Arts in C&I program in Science Education is designed primarily for teachers who wish to improve their science teaching skills or become leaders in the field of science education. The program is appropriate for teachers at all levels (K-12) who wish to learn more about applying contemporary science teaching strategies in their schools.

The program is designed to provide classroom teachers with a sound background in current science education research, theory and practice. Emphasis is placed on utilization of inquiry strategies, manipulative activities, and science process skills as a basis for science instruction. Teachers completing this program will be prepared to teach science in a self-contained setting, serve as science teachers for schools utilizing departmentalization, serve as a science resource teacher at the school or district level, or pursue an advanced degree in science education.

Course Requirements

The Science Education program requires a total of 30 credit hours of coursework:

- 12 to 18 hours of science education (Offered through COE)
- 12 to 18 hours of other COE courses, including LEAD 560-3, LEAD 570-3, and CURR 5090-3. (CURR 5002 is not required.)
- 0 to 6 hours of Letters Arts and Science (300 level or above) or Space Foundation courses

The Space Studies Track of the Science Education program requires 33 credit hours of coursework:

- 15 hours of Space Foundation Courses (Offered by the Space Foundation through Extended Studies)
- 9 hours of Science Education courses
- 9 hours of COE courses including LEAD 560-3, LEAD 570-3, and CURR 5090-3. (CURR 5002 is not required.)

Online MA in Curriculum & Instruction

The C&I online MA is designed to provide professional educators increased knowledge of current research on teaching and learning and its contexts and to help them apply that research in their practice. In addition, the degree provides an opportunity for teachers to focus on an area of interest and to develop increased skills and knowledge in that area.

The UCCS College of Education offers the online degree in three tracks for licensed teachers:

- General Masters Degree in Curriculum and Instruction (30 semester hours)
- Masters Degree in Reading (40 semester hours)
- Masters Degree in Linguistically Diverse Education (formerly ESL) (30 semester hours)

Admission Criteria

Online Masters Degree candidates must demonstrate practical knowledge in the field of teaching along with the research skills and practices necessary for graduate-level work.

To be admitted to the program, the applicant must meet the following criteria:

- Hold a Baccalaureate degree and teaching license
- Document a minimum undergraduate GPA of 2.75 and a graduate GPA of 3.0
- Complete GRE or MAT
- Successful experience teaching

Application Process

- Interview with Department Chair or Department faculty
- Submit three letters of recommendation (one academic, two professional)
- Submit evidence of successful teaching experience
- Submit personal goal statement
- Submit a completed program application

Following admission into the Online Masters Degree in Curriculum and Instruction, candidates may enroll for both online and on campus graduate courses in the College of Education; however, prior to enrolling in online courses, candidates must receive written approval from the Chair of the Department of Curriculum and Instruction.

For further information on the Online MA in Curriculum and Instruction, contact Cindy Brown, (719) 262-4344; email cbrown@uccs.edu.

Master of Arts – Special Education

Students may earn the Master of Arts degree in Special Education after completing a minimum of 32 specified credit hours as outlined in their graduate plan. In the final course (SPED 5090 Applied Research Project) students complete a field-based research project and present data to faculty and peers. Students must complete additional coursework as outlined on their graduate plan to be eligible for licensure.

Outcomes – MA in Special Education

- Develop new special education knowledge and translate special education and related research into practice as demonstrated through state-mandated certification tests and a final Master's project.
- Promote and model excellence in special education practice as demonstrated during students' reading course and their student teaching experiences.
- Use assessment data to plan instruction, monitor student progress, and determine effectiveness of instruction as demonstrated during student teaching.
- Work collaboratively with general educators and communicate in an effective, professional manner with parents, staff, administrators, students and related service personnel as demonstrated during student teaching and through subsequent reports from our alumni and from professionals in the field.

Master of Arts – Counseling and Human Services

The primary objective of the graduate programs in Counseling and Human Services is to prepare counselors and other human services personnel to serve as competent agents of change in a globally diverse world. Four tracks are available for students in Counseling and Human Services:

- Track One is designed to prepare professionals for work as school counselors.
- Track Two is designed to prepare professionals for work in mental health centers, agencies, business and industry, and private practice.
- Track Three, Student Affairs in Higher Education, is designed for students who wish to work on a college campus in a variety of positions.
- Track Four, Leadership and Counseling, is offered in collaboration with the Air Force Academy for military personnel.

Outcomes – MA in Counseling and Human Services

- Counseling and Human Services students will develop mastery of the body of knowledge of Professional Counseling.
- Students will develop mastery of the skills necessary to perform as a successful professional counselor.
- Students will develop insight into their own personalities, identifying the strengths and limitations they will bring to the counseling profession.

General Requirements

The Professional Core for the MA in Counseling and Human Services is a six course (18 credit hour) sequence lasting one full academic year (two semesters + summer). Students admitted to the program must commit to completing these courses in sequence beginning the summer semester of their first year in the program. Students are also required to complete a practicum of 100 clock hours and a two-semester internship of 600 clock hours in a school or agency.

Application Process

Admission to the Department of Counseling and Human Services is a selective process with limited enrollment in a day and evening cohort group. The department admits graduate students only once each year for programs beginning in the summer semester.

Application Materials:

- Official transcripts of all previous academic work
- Career goals statement and self-evaluation
- Scores from the Miller Analogies Test (MAT) or the Graduate Record Exam (GRE)
- Four letters of recommendation
- An admissions interview and other admissions activities.

Deadlines: Complete applications must be submitted by February 28th for consideration. Applicants will be notified of the results of this review by April 15th each year.

MA in Counseling and Human Services – School Counseling, Track One

School counselors are specifically credentialed professionals who work in school settings with students, parents, educators, and others within the community. They design and manage comprehensive developmental guidance programs to help students acquire skills in the social, personal, educational, and career development that are necessary for living in a multicultural society. School counselors assist students by employing interventions such as guiding and counseling students, individually or in small groups, by providing information through group guidance, by contributing to the development of effective learning environments, by providing student advocacy, and by providing consultation with others.

The School Counselor Program is designed to prepare students to work in elementary, middle, or secondary levels. Students are endorsed in either elementary, secondary, or P-12 counseling, depending on their career goals and the appropriate selection of practicum and internship

sites. School counseling graduates may meet the academic requirements for licensure as a professional counselor in Colorado.

The School Counseling Program meets the requirements of the CDE and is accredited by CACREP and NCATE. In accordance with CACREP standards, the school counselor program requires the completion of 48 credit hours of appropriate academic credit.

The School Counseling Program accepts a limited number of highly qualified recent graduates of community counseling programs for admission in a school counselor "endorsement only" program. Please contact the program for specific information.

MA in Counseling and Human Services – Community Counseling, Track Two

This program is designed to prepare graduate students to assume positions as counseling professionals in mental health centers, community agencies, business and industry, and in private practice. Students are prepared in the areas of human development; research and testing; professional ethics; career development; theories and practice of individual, group, and marriage and family counseling; psycho-pathology; and the etiology of mental illness and dysfunctional behavior. They may provide professional services to individuals, couples, families, and groups for the purposes of treating psychopathology and promoting optimal mental health. Promotion and enhancement of healthy, self-actualizing, and satisfying life-styles are the primary goals of community counseling.

The Community Counseling Program is based on national training standards, is accredited by CACREP, and is designed to meet the academic requirements for licensure as a professional counselor in Colorado.

To prepare Community Counselors for licensure, a 48 credit hour training program is required.

Through the appropriate selection of course projects, field experiences, and additional coursework, the students in the Community Counseling Program may develop specialization areas such as addictions counseling, play therapy, hypnotherapy, marriage and family counseling, or counseling in business and industry. Students with specialized interests should make these known to their adviser for inclusion in degree planning.

MA in Counseling and Human Services – Student Affairs in Higher Education, Track 3

The Student Affairs in Higher Education Program is offered to students who wish to work in a counseling or administrative capacity in higher education. This includes Admissions, Student Success, Financial Aid, the Counseling Center, Housing, and other areas. This program requires a total of 100 hours of field experiences.

MA in Counseling and Human Services – Counseling and Leadership, Track 4

The Counseling and Leadership Program within the Department of Counseling and Human Services is designed to prepare active-duty military leaders to effectively apply counseling and leadership skills to their professional work settings. This 48 credit hour track does not lead to licensure as a professional counselor but offers a strong foundation in applying counseling skills to leadership roles and functions. It has the same core requirements as other students' programs and includes 400 hours of field experiences.

Doctor of Philosophy (PhD) – Leadership, Research, and Policy

The College of Education PhD program is designed to meet the need for PhD-level researcher/practitioners to address problems of practice within area school districts and institutions of higher education (P–16), and non-governmental organizations with education related missions (NGO).

The rigorous curriculum requires 22 credit hours in the Research Core, 18 credit hours in the Professional Core, and 30 credit hours of Dissertation (70 credit hours total). A key feature of the program is that students will work with program faculty in Research Labs throughout the duration of coursework. These Labs are designed to give students an opportunity to conduct research early in the program under the supervision of seasoned faculty researchers in authentic work settings with teams of student colleagues.

Outcomes – PhD in Education

The PhD in Educational Leadership, Research, and Policy will prepare graduates to:

- engage in culturally responsive reflective practice and scholarly inquiry as scholar/practitioners
- synthesize multiple research perspectives to lead educational communities toward enhancement and refinement of policies and programs, enrichment and strengthening of instructional practices, and improvement of student outcomes
- communicate comprehensibly and effectively in both oral and written scholarly discourse
- direct educators and policy makers in the continuous improvement of practice through the cycle of implementation and evaluation
- model cultural competence appropriately in research-based policy and program educational initiatives.

Admission Requirements

As minimum requirements for admission into the PhD program in Leadership, Research, and Policy, the applicant must:

1. Hold a master's degree from an accredited college or university.
2. Submit scores of the Graduate Record Exam

(GRE) taken within the past five years. Scores from the Verbal, Quantitative, and Analytical subtests are required. There are no cutoff scores for the GRE subtests or composite score. GRE scores will contribute to an index score, which will be considered in admission decisions.

3. Submit three letters of recommendation: one from a former graduate instructor, one from a current supervisor, and one from a professional colleague. The requirements for the letters are described in the admission packet. Letters from current UCCS faculty in the Department of Leadership, Research, and Foundations (LRF) will not be accepted.

4. Exhibit a history of professional leadership experience that demonstrates high motivation and a significant contribution to the field of education. This criterion should be reflected in the required Career Goals Statement described in the admission packet.

5. Describe a pattern of professional experience that exhibits a trajectory of increased leadership responsibilities over time. This criterion will be reflected in the Career Goals Statement described in the admission packet.

6. Submit an up-to-date resume or academic vitae.

Acceptance decisions will be based upon an overall index score generated from all admission requirements.

Curriculum Requirements

Leadership and Policy Core

LEAD 730 Ethical Leadership and Democratic Values in a Multicultural Society 3
LEAD 735 Leadership, Power, and Authority in Education Policy and Governance 3
LEAD 820 Large Scale Student Assessment 3
LEAD 825 Policy Analysis and Evaluation 3
LEAD 830 Leadership Excellence in Complex Organizations 3
LEAD 835 The Economics of Education 3

Research Core

LEAD 710 Intermediate Quantitative Research and Statistics 3
LEAD 715 Methods of Qualitative Research 3
LEAD 760 Doctoral Research Laboratory in Leadership 2
LEAD 810 Advanced Quantitative Research and Statistics 3
LEAD 815 Applications of Qualitative Research 3
LEAD 899 Doctoral Dissertation 1-10

College of Engineering and Applied Science

Jeremy Haefner, Dean
Engineering Building
(719) 262-3543 Fax: (719) 262-3542
eas.uccs.edu

Engineering is the application of scientific theories and resources of nature for the benefit of humanity.

Computer science provides the essential computational and process control tools for nearly every aspect of modern society. Computer engineering offers a mixture of computer science and electrical engineering. The disciplines of computer science, computer engineering, electrical engineering, and mechanical engineering all require a significant study in mathematics. Graduates of these four disciplines work primarily in technical careers, either public or private, but some also become teachers, managers, or entrepreneurs with their own businesses.

The prospective computer scientist or engineer should appreciate mathematics and have a keen interest in science and its methods. The ability to express ideas in both written and verbal form is of primary importance. The ability to understand problems and produce creative and innovative solutions is also a necessary prerequisite. Personal qualities such as initiative, energy, willingness to take responsibility, reliability, honesty, good judgment, understanding diversity, the ability to work and cooperate with others, and the perseverance to work through to the conclusion of an assignment are important. Obviously, the fundamentals of sound citizenship are necessary in any profession.

Employment demand for computer scientists, computer engineers, electrical engineers, and mechanical engineers is expected to grow faster than the average of all professions well into this century. Abundant opportunities will present themselves to graduates of these disciplines, in both public and private laboratories, in industry, and in commercial enterprises.

Financial rewards to be earned compare favorably with those of other professions; however, no one should enter any profession solely for monetary rewards. Rather, the dominant consideration should be the opportunity to use a lifetime for the advancement of society and the consequent personal satisfactions and enjoyment.

Mission

In partnership with the community and our alumni, the mission of the College of Engineering and Applied Science is to:

- **Illuminate:** Inspiring a passion in our students for life-long learning and graduating engineers and scientists who are knowledgeable and competitive in the global marketplace throughout their careers
- **Investigate:** Conducting recognized and relevant research that has both local and global impact
- **Innovate:** Engaging in leadership, service, economic and technology development that improves health, welfare, and prosperity through engineering.

Academic Advising

Undergraduate

Student Success Center
2nd floor, Main Hall
(719) 262-3260
Or contact the engineering academic advisor at (719) 262-3427

Graduate

Please refer to the appropriate degree program within EAS for information regarding academic advising.

Academic Programs

BS – four years

Majors which may be completed in the College of Engineering and Applied Science at UCCS include Computer Engineering, Computer Science, Electrical Engineering, and Mechanical Engineering

Generally, two years of work toward the following degrees from the College of Engineering and Applied Science may be taken on this campus: Architectural Engineering, Chemical Engineering, Civil Engineering, and Engineering Physics

Departments within the College of Engineering and Applied Science include the Department of Computer Science (CS), the Department of Electrical and Computer Engineering (ECE), and the Department of Mechanical and Aerospace Engineering (MAE).

Bachelor of Innovation* *(see chart on following page)*
The Bachelor of Innovation family programs is an international interdisciplinary undergraduate program between the College of Engineering and Applied Science (EAS) and the College of Business. The Bachelor of Innovation (BI) is a family structure, much like a bachelor of science (BS) or a bachelor of arts (BA), in which particular majors are defined. The BI includes these programs (in alphabetical order): BI in Business and Administration, BI in Computer Science, BI in Computer Security, BI in Electrical Engineering, and the BI in Game Design and Development. Each option in the program is composed of an emphasis major, an innovation core, a cross-discipline core, and the general education requirements.

Doctor of Philosophy** *(see chart on following page)*
The PhD in Engineering degree has its roots in the successful PhD program in Electrical Engineering offered in the College, and allows a broad range of research areas, including Electrical, Mechanical, and Computer Engineering, as well as Computer Science. A student can also have a PhD program that is interdisciplinary.

Discipline/Department	Minor	Bachelor of Science	Bachelor of Innovation*	Certificate	Master of Science	Master of Engineering	Doctor of Philosophy**
Aerospace Engineering – MAE	Minor						
Computer Engineering – CS, ECE	Minor	BS					PhD**
Computer Science – CS	Minor	BS	BI*		MS		PhD**
Computer Security – CS			BI*	Certificate			
Electrical Engineering – ECE	Minor	BS	BI*		MS		PhD**
Engineering Management – MAE						ME	
Game Design and Development – CS	Minor		BI*				
Information Assurance – CS				Certificate		ME	
Mechanical Engineering – MAE		BS			MS		PhD**
Software Engineering – CS				Certificate		ME	
Space Operations – MAE						ME (distance only)	
Systems Engineering – CS, ECE, MAE				Certificate		ME	

Special Programs, Laboratory Facilities and Research Centers

RMTA – Rocky Mountain Technology Alliance

The College of Engineering and Applied Science is the host institution for the local chapter of the Rocky Mountain Technology Alliance (RMTA), which is a regional development organization for applied research and technology development. The membership includes universities, government organizations and private businesses working together to bring forward new technology and manufacturing solutions to support successful commercial growth and national security.

The RMTA cooperatively pursues collaborative programs that will produce intellectual property (IP) for new products and businesses and provide support to existing businesses. The core objectives of the Alliance are to apply technology for the benefit of society, support economic development, strengthen the research base of the region, and foster entrepreneurship.

The Alliance works closely with the Dean and faculty of the College to develop first class programs to meet present and future needs of the region.

Computer Science

The Computer Science Department laboratories provide students (of all majors) with access to the latest programs in support of their degrees. The well-equipped laboratories contain a wide variety of computing resources. The Software Development Laboratory contains 27 networked Windows XP Workstations. The Advanced Computing and UNIX Laboratory contains 30 Windows XP and 8 Linux workstations. The Graphics and Networks Laboratory contains several Silicon Graphics workstations and NT/ Linux workstations. This laboratory supports research in graphics, computer communications networks and multimedia computing.

Electrical and Computer Engineering

The Electrical and Computer Engineering Department has a wide variety of labs to enhance the learning of undergraduates and graduates in their education and research. With state of the art technology, the students will get hands-on experience in many aspects of the Electrical and Computer Engineering areas. A short description of each lab follows.

The Communications and Signal Processing Laboratory (CSPL)

This lab provides a focus for sponsored and un-sponsored research in communication systems, communication theory, and signal processing. Research projects have included analyses, computer simulation, and hardware experimentation involving spread spectrum communications, space communications, and wireless mobile communications.

The Control-Systems Laboratory (CSL)

The CSL comprises a number of student and research work centers. Each work center has at least one device to control, which includes Educational Control Products (ECP), Magnetic Levitation and Control-Moment Gyroscope systems, and a Rhino Robotics six-degrees-of-freedom robotic arm. Each center has a full complement of test-and-measurement equipment. This laboratory is run jointly with the MAE department.

The Electromagnetics Laboratory (EML)

The EML supports programs in the areas of wave propagation, microwaves, antennas, and metrology. Undergraduate and graduate laboratory courses have been developed in the areas of microwaves, millimeter waves, and infrared (IR) diagnostic techniques to support the existing courses in electromagnetic theory. These laboratory facilities provide students with measurement techniques and skills in the radio frequency (RF), microwave, millimeter wave, and IR wavelength regions. The EML contains a large broadband, shielded microwave anechoic chamber.

The Electronics Laboratory (ECL)
This lab is used for instruction in basic circuits design, digital circuits design, microcomputer systems design, and electronic circuits design. The laboratory is equipped with personal computers, power supplies, function generators, oscilloscopes, logic analyzers, and other components needed to support required laboratories in the Electrical Engineering and Computer Engineering curriculum. This laboratory also houses stations for embedded systems design.

The Microelectronics Research Laboratories (MRL)
These are a group of related laboratories supporting all aspects of microelectronics, including fundamental microelectronic device modeling and processing, integrated circuit design and fabrication. MRL links the efforts of the following associated laboratories: (1) Advanced Development Laboratory (Class 100 clean room), (2) Device Characterization and Analysis Laboratory, (3) VLSI Circuit Design Laboratory, and (4) Advanced Materials Laboratory for undergraduate and graduate students.

The VLSI Circuit Design Laboratory (VLSI)
This lab is associated with MRL to provide support for all phases of integrated circuit design. The laboratory is equipped with computer-based engineering workstations with software for designing modern integrated circuits and digital computers. The Laboratory's design suite includes leading edge commercial and public-domain tools for schematic capture, analog and logic simulation, timing analysis and verification, behavior modeling and simulation, fault simulation, test generation, physical layout, design verification, logic synthesis, PLA design, and FPGA design.

Mechanical and Aerospace Engineering

The Mechanical and Aerospace Engineering Department maintains a variety of essential labs to enhance the undergraduate and graduate in the education and research for each student.

The Flight Dynamics and Control Laboratory (FDCL)
The FDCL is focused on support to aeronautics and the space program. Research projects and lab support involve both theoretical and applied investigations in flight dynamics, dynamic modeling, orbit mechanics, optimal flight guidance, space navigation and aerospace vehicle flight-control systems. Graduate and undergraduate students in all departments of the College may become involved in research programs funded by NASA, the U.S. Navy, and the Air Force. Topics of investigation range from spacecraft orbit and attitude determination to integrated flight and propulsion control for next-generation aircraft and launch vehicles. The facilities include Hewlett-Packard 700-Series workstations and a networked cluster of Macintosh, Windows, and Windows NT workstations. A full complement of MATLAB-based CAD tools are available for dynamic-system analysis and control design, along with several state-of-the-art software packages for spacecraft mission analysis and non-linear programming.

Project Lead the Way

UCCS is the Colorado Affiliate University for Project Lead the Way (PLTW), a national pre-engineering curriculum geared for middle and high school students. The College of EAS supports PLTW by providing high school and middle school teacher training and support and by offering graduate continuing education credit for PLTW teachers. The College of EAS also grants college credit for qualified high school students enrolled in PLTW courses from certified high schools. (See detailed information in Undergraduate Transfer Credit.)

EAS General Academic Policies

Advising

Undergraduate

All undergraduate students are required to be advised EACH semester (except Summer semester) before enrolling in classes. Students will be advised by their respective departments or the Engineering Academic Advisor. Academic advising is available throughout the year in the Student Success Center, 2nd floor, Main Hall. If you do not know who your advisor is or would like advising, contact the engineering academic advisor at (719) 262-3427, or for appointments, (719) 262-3260.

Graduate
Please refer to the appropriate degree program in the *Bulletin* for information regarding academic advising.

EAS Instructional Fees

The College of EAS collects a college-wide EAS instructional fee (EAS IF).

The fee structure for academic year 2007-08 is $15 per EAS credit hour with a maximum of $120 per student per semester. This applies to all courses offered in the College of EAS with the exception of graduate thesis courses. There are no additional fees levied within the College. The fee is non-refundable.

The purpose of the fee is to assist the College in providing exceptionally high-quality instruction, including, but not limited to, the following:

- Support for all instructional labs and smart classrooms managed by the College of EAS
- Support for the College IT network and servers
- College or departmental help centers or instructional supplements provided by students for students, and students run mentoring programs.
- Support for career placement services that are specific to EAS, such as mock interviews with technology companies.

Grading Policies

Consult the General Information section of this *Bulletin* for more information.

Incomplete Courses
An incomplete may be given by the instructor (subject to approval by the appropriate department chair/EAS Dean) for circumstances beyond the student's control, such as a documented medical or personal emergency. When it is given, the student is informed in writing by the instructor of what the student is to do in order to remove the incomplete and when the tasks are to be completed. The instructor may assign only the I/F grade. The student is expected to complete the course requirements, e.g., the final examination, term paper, etc, within the established deadline and not to retake the entire course. The grade will be converted automatically to a grade of F after one year unless the specified work is completed.

No-Credit Courses
Students who register NC (no credit) are expected to attend classes and take all examinations but receive no credit. In the College of Engineering and Applied Science, students may not register NC for a required course, or change registration to NC in any course, except by petition to the chair/dean. If the student does failing work, the chair/dean may request the Office of Admissions and Records to change the registration from NC to credit, whereupon the student will receive a grade of F. A course previously taken for NC may not be retaken for credit to apply toward an undergraduate or graduate degree awarded by the College of Engineering and Applied Science. Engineering courses completed for NC by students not admitted to the College of Engineering and Applied Science may not be taken again for credit after transferring to the college.

Pass/Fail Option
The primary purpose for offering courses in which undergraduates may be graded pass or fail (P/F) rather than A, B, C, D, or F is to encourage undergraduate students to broaden their educational experience by electing challenging courses without serious risk that their academic records might be jeopardized. Not more than one course per semester or summer session may be taken P/F. Courses which a student may elect to be taken P/F shall be designated by the major department. A student who has not designated a major field will not be allowed the P/F option. In the College of Engineering and Applied Science only social sciences/humanities courses at the 300 level or above may be taken P/F. The maximum number of P/F hours counting toward graduation shall not exceed 16 credit hours, including courses taken in the Honors Program under the program's P/F grading system. A transfer student may count toward graduation 1 credit hour of P/F courses for each 9 credit hours completed in the college.

Graduation Requirements

Bachelor's Degree
To be eligible to graduate with one of the Bachelor's degrees in the College of Engineering and Applied Science, a student must meet the following minimum requirements:

- Be admitted into the degree major at least 30 credit hours prior to graduation
- Have at least a 2.0 CU cumulative GPA for graduation
- Complete the Writing Competency as outlined in the General Information Section of this *Bulletin*
- Satisfactorily complete the MAPS deficiencies before graduation (the requirement is 2 high school years or 2 college semesters of a foreign language).
- Satisfactorily complete the prescribed degree curriculum requirements as outlined by the department section later in this *Bulletin*.

It is the responsibility of students to be sure they have fulfilled all the requirements by completing a graduation check in the Engineering Advising office the semester before they anticipate graduating. It is the responsibility of the student to keep the Engineering Advisor informed of any changes in the student's plans throughout the senior year. The department chair must approve deviations from departmental degree requirements, in advance by petition. Petition forms may be obtained at the Engineering Advising office.

Graduate Degrees
Refer to the appropriate College of Engineering and Applied Science degree programs.

Intern/Co-op Programs

The Intern Program assists in the placement of students in part-time positions while they are attending school, and the Co-op Program provides alternate semesters of work and study for students. The purpose of the programs is to allow qualified students an opportunity to supplement their education with work experience in their major area of study. To qualify as an intern/co-op applicant, a student must be enrolled in the College of Engineering and Applied Science and maintain a GPA of at least 2.5. Further information may be obtained by calling (719) 262-3347 or writing to: Intern/Co-op Program Coordinator, UCCS, College of Engineering and Applied Science, P.O. Box 7150, Colorado Springs, CO 80933-7150.

EAS Undergraduate Program Policies

Undergraduate Admission Procedures

The *Bulletin* that governs a student's graduation requirements is the one in effect at the time of a student's most recent admission into the college of the student's degree program.

The college seeks to identify applicants having a high probability of successful completion of their academic programs. Admissions is based on evaluation of many criteria; among the most important are the general level of academic performance before admissions to the college and other evidence of motivation, potential, scholarly ability, and accomplishment by College Board scores, by letters of rec-

ommendation from teachers and others qualified to evaluate the student , by accomplishments outside academic work, and by other relevant evidence.

Freshmen
In order to enroll, the student must meet the requirements of the College of Engineering and Applied Science as well as the University requirements described in the General Information section of this *Bulletin*. Students interested in a Bachelor of Science degree who meet these requirements are assured admission to the College.

Placement Requirements:

- rank in the upper 30th percentile of their high school graduating class
- ACT composite score of 25 or above or an SAT composite score of 1120 or above

Expected High School Coursework:

- English: 4 course units
- Math: 4 course units; at least 2 yrs algebra, 1 yr geometry, 1 yr adv math
- Natural Science: 3 course units; 1 yr physics, 1 yr chem.
- Social Science: 2 course units; government, history, econ, psych, sociology
- Foreign language: 2 course units, all in a single language
- Academic electives: 1 course unit

MAPS
Students should insure that they are taking the Minimum Academic Preparation Standards (MAPS) for Engineering and Applied Science, as outlined in the General Information Section of this *Bulletin*. Beginning students in engineering, or computer science must be prepared to start analytic geometry-calculus. (Courses will be offered to allow a student to make up deficiencies; however, no credit toward a degree will be given for algebra or trigonometry.) In order to be prepared for the type of mathematics courses that will be taught, the student must be competent in the basic ideas and skills of ordinary algebra, geometry, and plane trigonometry.

These include such topics as the fundamental operations with algebraic expressions, exponents and radicals, fractions, simple factoring, solution of linear and quadratic equations, graphical representation, simple systems of equations, complex numbers, the binomial theorem, arithmetic and geometric progressions, logarithms, the trigonometric functions and their use in triangle solving and simple applications, and the standard theorems of geometry.

It is estimated that it will usually take seven semesters to cover this material adequately in high school. Freshman will be given a mathematics placement test during orientation to insure that they begin the correct mathematics course based on their abilities.

Transfer Students
Students transferring from other accredited collegiate institutions will be considered for admission if they meet the requirements outlined in the General Information section of this *Bulletin* or the freshman requirements for entering the College of Engineering and Applied Science. The student should understand that engineering degree requirements differ from one campus to another – from course selection to the number of credit hours required for the degree. To ensure the maximum acceptance of credit toward degree requirements and minimize the length of time required to complete the degree, the student planning to transfer to UCCS should contact the Engineer Advisor (719-262-3427). Please see website.

Intra-University Transfer Students
Students from other colleges at UCCS may transfer into the College of Engineering and Applied Science. Students transferring into the College must have completed at least 2 full semesters at UCCS and have a cumulative CU GPA of at least 2.5 (with preference that at least Calculus I is completed). Students with a cumulative GPA between 2.0 and 2.5 will require department chair approval before being admitted into their major.

Unclassified Students
Persons who have been admitted to the university in the category of unclassified students may be permitted to register for courses in the College of Engineering and Applied Science upon approval subject to the availability of space in classes. Unclassified students should be aware of the College of Engineering and Applied Science rule that at least the last 30 semester hours must be earned in degree status in the College of Engineering and Applied Science in order to apply toward an engineering degree. A maximum of 12 semester hours of credit earned while in unclassified student status may be carried toward an undergraduate degree at the University of Colorado. High school concurrent students may exceed this 12-hour rule for unclassified students.

Undergraduate Academic Policies

Special Sources of Credit

Advanced Placement
Advanced placement and college credit may be granted on the basis of the College Entrance Examination Board's Advanced Placement Tests or by special examinations administered by the department involved. For students who have taken an advanced placement course in high school and who make scores of 4 or 5 in the CEEB Advanced Placement Test, advanced placement as well as college credit will be granted (outlined in General Information, Advanced Placement Program, in the beginning of this *Bulletin*). Advanced placement credit for the freshman mathematics courses in calculus and differential equations will be limited to not more than 4 hours each.

Project Lead the Way Course Credit

The College of EAS grants college credit for qualified high school students enrolled in Project Lead the Way (PLTW) courses from certified high schools. UCCS is the Colorado Affiliate University for PLTW, a national pre-engineering curriculum geared for middle and high school students. UCCS transcripts credits can be earned for three PLTW courses offered by the EAS College: Principles of Engineering, Introduction to Engineering Design and Digital Electronics.

High school students must completed the PLTW course, score 80 (based on a scale of 100) or better on the end-of-course college credit exam, and register for the UCCS credit the semester immediately following the high school course.

Up to 5 credits (two courses) are direct course replacements toward a BS degree from UCCS in:

- Computer Engineering (Principles of Engineering & Digital Electronics)
- Electrical Engineering (Principles of Engineering & Digital Electronics)
- Mechanical Engineering (Principles of Engineering & Intro to Engineering Design)

Additional credits will count as general credits toward a degree from the college. For further information contact the PLTW office at 719-262-3814.

Transfer Credit Acceptance

Students desiring to transfer credits from engineering technology programs should note that such credits are accepted only upon the submission of evidence that the work involved was fully equivalent to that offered in this college.

Some technology courses are given with titles and textbooks identical to those of some engineering courses. These may still not be equivalent to engineering courses because of an emphasis that is nonmathematical or otherwise divergent.

In order to assist engineering technology students with transfer problems, the following guidelines have been established:

- Courses on basic subjects such as mathematics, physics, literature, or history may be acceptable for direct transfer of credit if they were taught as part of an accredited program for all students and were not specifically designated for technology students.
- Students who have taken technology courses (courses with technology designations) that may be valid equivalents for engineering courses have these options:

  Students may petition the department chair concerned to waive the course. The requirement for a course can be waived if a student demonstrates that by previous course work, individual study, or work experience he/she has acquired the background and training normally provided by the course. No credit is given toward graduation for a waived course, but a strong student may benefit from the waiver by being able to include more advanced work later in his or her curriculum. Other students may profit by taking the course at this college instead and thus establishing a fully sound basis for what follows.

  Credit for a course may be given if the course work was done at an accredited institution of higher education. The University of Colorado department involved may recommend that credit be transferred to count toward the requirements for a related course in its curriculum. Credit cannot be given for vocational technical or remedial courses under rules of the University. (See the General Information section on transfer of college-level credit.)

  Students may seek credit for the course by examination. See Advanced Placement and College Level (CLEP) Credit.

Transfer Credit Decisions

After a prospective transfer student has made application and submitted transcripts to UCCS, the Office of Admissions and Records issues a computer-generated student transfer credit evaluation, listing those courses that are acceptable by University standards for transfer. Once a student receives the transfer evaluations, an appointment should be made with the Engineering Advisor (719- 262-3427) to conduct an evaluation of the transfer credits as applicable to a degree in the College of Engineering and Applied Science. If at any time a student wishes to have a course not previously accepted considered again for transfer, the student should consult with the Engineering Advisor.

UCCS has established articulation agreements with all two-year colleges in Colorado. For students from such a college, the transfer process to UCCS will be easier. It is, therefore, beneficial for students from two-year colleges in Colorado to check with their administration to see what courses will transfer.

ROTC Credit

Credit from courses completed in the ROTC program will not apply toward fulfillment of the requirements for degrees in Mechanical Engineering or Electrical Engineering. A maximum of 5 semester hours of work from the ROTC program may be applied toward the BS in Computer Science or Computer Engineering.

Work Experience

It is the policy of the College of Engineering and Applied Science at UCCS that any credits accrued in the official records of the student that were awarded for work experience will not apply as part of the 128 semester hours required for an engineering degree in the College.

Undergraduate Academic Progress

Satisfactory Progress

To remain in good academic standing, undergraduate students must maintain a cumulative CU grade point average of 2.0 or better in hours taken.

Scholastic Probation and Suspension

Students whose full-time semester's or cumulative GPA falls below 2.0 will be placed on probation for the next semester in which they are enrolled in the College of Engineering and Applied Science and will be notified by mail. If, after that semester, the semester or cumulative GPA is still below 2.0, the student will be suspended from the college.

Students who have been suspended from the College of Engineering and Applied Science cannot register for courses at the University (except for summer sessions, correspondence courses or extended studies classes) unless the suspension has been lifted or they transfer to another college. Suspended students may apply to transfer to another college within the University, and, if approved, take courses in the new major. Students are responsible for knowing whether or not they are under a current suspension.

Students who have been suspended may apply for readmission during the second semester following the suspension (not including summer school) if they meet the following requirements:

- They have brought their cumulative CU GPA up to 2.00 through summer session, and/or correspondence work and/or
- They have satisfactorily completed, at another college or university, a minimum of 15 semester hours of work appropriate to an engineering curriculum

Suspended students must apply to have their suspension removed (after meeting the above requirements) to the Dean, Engineering and Applied Science. In addition, students may be required to reapply to the University.

Students who are in doubt about their standing with regard to scholastic deficiency are strongly urged to consult with the Engineering Advisor.

Course Load

Full-Time Students and Overload Approval

Students should register for the regular course load as outlined by their advisor. Students may register for 18 hours or less without approval. Permission to take more than 18 semester hours may be granted only after approval, using an Overload Approval Form, submitted to the Engineering Advisor (for 19-21 hours) or, the chair of the appropriate department (for over 21 hours). The forms can be obtained from the Student Success Help Center, 2nd floor Main Hall.

Employed Students Course Load Guidelines

Course load guidelines for students employed 10 or more hours per week are as follows:

Employed:

40 or more hrs/wk (max. 9 sem. hrs.) . . . 2 courses

30–39 hrs/wk (max. 12 sem. hrs.) . . . . . 3 courses

20–29 hrs/wk (max. 15 sem. hrs.) . . . . . 4 courses

10–19 hrs/wk (max. 18 sem. hrs.) . . . . . 5 courses

The above guidelines result from the experience of those who are both employed and in school. Students who wish to discuss a deviation from these guidelines may call the appropriate department office in the College of Engineering and Applied Science.

Undergraduate Academic Requirements

Common EAS Core

The College of Engineering and Applied Science has implemented a common EAS Core for entering freshmen students. This is a set of courses in English, science, mathematics, the humanities, and social sciences that count towards all undergraduate degrees offered by the College. Though some students declare a major upon acceptance into the College, others may delay the selection of a major. The curriculum of the Common EAS Core provides the students with the necessary foundation for pursuing their education career in the College and at the same time allows a change of major within the College to occur during the freshman year with minimum loss of credit or delay in graduation.

The Common EAS Core makes up for 25 of the 32 semester credit hours typically taken by a full time freshman. For the selection of the remainder 7 credit hours, students should consult their college advisors.

The Common EAS Core consists of the following courses:

Math 135 Calculus I 4
Math 136 Calculus II 4
PES 111 General Physics I 4
PES 112 General Physics II 4
English 131 Rhetoric and Writing I 3
Humanities/Social Science Electives. 6

Students Planning to Transfer to Another School for their Degree

The College of Engineering and Applied Science has developed a series of courses at the freshman and sophomore level that meet the requirements for some engineering disciplines at most accredited universities throughout the country. Our advising will follow these generally accepted guidelines. Since curricula will vary slightly from time to time and place to place, students should check with the college/university to which they plan to transfer to verify that the two-year program suggested here would transfer in its entirety.

EAS Graduate Programs

Master's Degrees

The EAS College offers Master of Science degrees in Computer Science, Electrical, and Mechanical Engineering (refer to individual departments for details). The College also offers Master of Engineering Degrees in Software Engineering, Information Assurance (CS dept), Master of Engineering in Engineering Management, Space Operations (distance only), and Systems Engineering (MAE dept.).

Admission Procedures - Master's Degree

Every prospective graduate student should consult the graduate student advisor in the respective departments at the College of EAS at UCCS prior to submitting an application for admission to the Graduate School. Students wishing to take graduate courses without formally enrolling as graduate students may enroll in the unclassified student category described in the General Information section of this *Bulletin*.

Guaranteed Early Admissions

Students who are seniors in any of the undergraduate programs in the College of EAS at UCCS may be eligible for guaranteed and simplified admission to the graduate programs. Contact the appropriate graduate degree program director for more details.

Fast Track Admissions Process for Recent Graduates

Students who graduated within the past 4 years with a degree from the College of EAS at UCCS are eligible for fast track admissions process. Contact the appropriate graduate degree program director for more details.

Normal Admission

Students having an overall undergraduate GPA of 3.0 or better (on a 4.0 scale) in all college-level academic work attempted are normally admitted to regular degree status.

Provisional Admission

See individual programs for detail.

General Requirements – Master's Degree

Credit hours: A total of 30 semester hours of graduate course work is required.

Grades: An overall 3.0 grade point average is required in all graduate work.

Thesis or Non-Thesis: The student must select either a Thesis (plan I) or Non-Thesis (plan II) option. Plan I requires a thesis worth from 4 to 6 semester hours of credit; plan II requires a 3 semester hour project, except for the student in the MSME degree program; MSME students selecting plan II do not have a project requirement. In both cases, an oral presentation and defense is required, which is open to the public and which can include questions over all work presented for the degree.

Time Limit: All work applied to the degree must be accomplished within a six-year time limit.

Advising: Students are advised by the chair of the graduate studies committee during their first semester. A student must choose an advisor by the time 12 credit hours have been completed.

Plan of Study: All courses included to count for this degree must be part of an approved plan of study. This plan must be developed by the student and approved by his/her advisor within the first semester of registering.

Doctor of Philosophy in Engineering

The College of EAS offers the PhD in Engineering degree. The degree has its roots in the successful PhD program in Electrical Engineering offered in the College, and allows a broad range of research areas including Electrical, Mechanical, and Computer Engineering, as well as Computer Science. The interdisciplinary nature of this program enables our students to devise programs of study that better suit their interests and needs.

For general information about this program, students are encouraged to contact the College Dean's Office at (719) 262-3543 or by email at dean@eas.uccs.edu.

Students interested in research areas with an emphasis in computer science should directly contact the Department of Computer science at (719) 262-3544.

Students interested in research areas with an emphasis in mechanical and aerospace engineering should contact directly the Department of Mechanical and Aerospace Engineering at (719)262-3243.

Learning Objectives - PhD, Engineering

- The candidate must have a broad knowledge of science, math and engineering.
- The candidate must have in-depth knowledge of the specific area in which the thesis research will be conducted.
- The candidate must be able to read, understand, and evaluate professional literature on advanced topics in engineering and applied science.
- The candidate must be able to write technical reports and project documentation.
- The candidate must be able to make oral presentations of technical information.
- The candidate must demonstrate the capability to make fundamental and significant contributions in the area of engineering and applied science using basic and advanced knowledge of science, mathematics, and engineering disciplines, along with the tools of research, to perform analysis and synthesis and to visualize potential areas of application.

Systems Engineering

Systems engineering is an interdisciplinary approach encompassing the entire set of scientific, technical, and managerial efforts needed to evolve, verify, field and support an integrated life-cycle balanced set of system solutions that satisfy customer needs.

In designing and developing today's large and complex systems, the systems engineer must understand and balance competing demands ranging from the end user's needs to financial concerns. The systems engineering program first provides a broad understanding of the roles of a systems engineer, and then on that foundation it provides a thorough understanding of the implementation process from needs analysis to eventual system requirement. The increasing complexity of today's engineering systems places a great demand on the systems processes and techniques to ensure efficient and cost effective solutions to formulated needs and fielded systems.

Master of Engineering – Systems Engineering

The Systems Engineering curriculum includes courses designed for working professionals who develop, field, and operate and maintain today's complex engineering systems. Offered courses stress the system life-cycle approach and the supporting trade studies, computer simulation, and risk management. These courses ensure that developed systems solutions efficiently satisfy the stated need and are the most cost effective alternative for the fielded system solution. These courses are regularly offered late afternoon or evening in order to provide the classroom opportunity for working professionals.

Systems Engineering – Certificate Program

The College of Engineering and Applied Science also offers a certificate in Systems Engineering to qualified students. The program has been designed to provide employees of engineering companies with an opportunity to enhance their systems engineering knowledge and skills. These potential students may not wish to pursue an in-depth rigorous Master of Engineering program but nonetheless desire to increase their professional capability and enhance career advancement opportunities.

For up-to-date information on these programs, including admissions requirements and programs of study, please refer to http://eas.uccs.edu/programs.php.

Department of Computer Science

Engineering Building, Room 199
(719) 262-3325 Fax: (719) 262-3369
http://cs.eas.uccs.edu/
E-mail: csinfo@cs.uccs.edu

Faculty

Emeritus: Badal, Sebesta. ***Professors:*** Augusteijn, Boult (El Pomar Chair of Computer Communications and Networking), Chow, Semwal and Shub; ***Associate Professors***: Kalita, Pinson, and Wiener (Chair); ***Assistant Professors***: Chamillard and Zhou; ***Instructors:*** Solimon-Habib, Carter.

Programs Coordinated by the Department:

Minor in Computer Engineering

Minor in Computer Science

Game Design and Development Minor

Bachelor of Science in Computer Engineering

Bachelor of Science in Computer Science

Bachelor of Innovation in Computer Science

Bachelor of Innovation in Computer Science Security

Bachelor of Innovation in Game Design and Development

Software Engineering Certificate

Information Assurance Certificate

Secure Software Systems Certificate

Master of Engineering in Information Assurance

Master of Engineering in Software Engineering

Master of Science in Computer Science

PhD Program in Engineering, Computer Science concentration

Computer Science Study

Computer science encompasses a relatively new body of knowledge that treats both theoretical foundations and practical applications of computers. Since the 1950s, significant human, financial, and physical resources have been directed toward the design and development of both less expensive and more powerful computers. These efforts have resulted in a wide variety of computers, ranging from microcomputers costing a few hundred dollars to multi-million dollar parallel processors.

Computer science has applications in virtually every major field, including banking, business administration and management, engineering, applied and pure mathematics, physics, chemistry, biology, word-processing, database management, simulation, numerical analysis, statistics, games, robotics, medicine, animation, automobile and aviation industry, personal communication and security.

The application of digital computers in all phases of our lives has created many career opportunities. The job market for graduates having a degree in computer science is strong and supported by clear trends for continued growth.

The UCCS curriculum in computer science presented in this *Bulletin* is modern and rigorous. The Department of Computer Science takes great pride in emphasizing quality teaching supported by modern computer facilities. The UCCS curriculum in computer science also requires a concentration of related courses chosen by the student. This requirement is intended to insure that the graduates of the program will have a base of knowledge embracing a field where computers are applied.

BS Degree: UCCS offers a complete four-year program of study leading to a BS degree in computer science. The undergraduate curriculum provides students with theoretical foundations and practical experience in both hardware and software aspects of computers. The curriculum in computer science is integrated with courses in the sciences and the humanities to offer an education that is broad, yet of sufficient depth and relevance to enhance student employ-

ment opportunities upon graduation. As a degree program within a professional school of the University, the curriculum is based on the criterion that graduates are expected to function successfully in a professional employment environment immediately upon graduation.

Joint BS Degree: The Departments of Computer Science and Electrical and Computer Engineering jointly offer a BS Degree in Computer Engineering. This program is described in detail in the Electrical and Computer Engineering section.

Minor Program: UCCS also offers a flexible minor in computer science. The minor provides students the ability to formally supplement their study in other fields with a rigorous computer science background that will enhance employment opportunities after graduation.

General Courses: Students who do not intend to major or minor in computer science may take computer science courses to broaden their backgrounds and complement their degree curricula. Introductory courses CS 100, 103, 104, 105, 106, and 107 are intended to make computer literacy and programming available to a broad class of students. CS115 and 145 are recommended for those who anticipate doing extensive computing in their student or professional careers.

Accreditation

The BSCS degree at UCCS is accredited by the:

Computing Accreditation Commission of ABET
111 Market Place, Suite 1050
Baltimore, MD 21202-4012
(410) 347-7700

Bachelor of Science – Computer Science

Objectives

1. **Illuminate** – lifelong learning in computer science:

   a. Alumni will be prepared to learn on their own whatever is required to stay current in their chosen profession, for example, learning new programming languages, algorithms, developmental methodologies, etc.

2. **Investigate** – demonstration of computer science principles:

   a. Alumni should have the ability to find and access information relevant to an application under development.

   b. Alumni should have the ability to model various problem domains and convert them into software solutions.

   c. Alumni should have the ability to apply techniques of algorithm design and automata theory to new problem solving situations.

   d. Alumni should demonstrate the ability to draw upon the expertise of others and negotiate solutions to a problem as a productive technical team member.

   e. Alumni should demonstrate an understanding of the impact of computer problem solutions in a global, economic, environmental, and societal context.

3. **Innovate** – creative application of computer science principles

   a. Alumni should be able to generate new and innovative solutions to solve problems or meet requirements in their discipline.

   b. Alumni should be able to integrate global, economic, environmental, and societal considerations into their problem solutions.

Outcomes

1. An ability to apply mathematical foundations, algorithmic principles, and computer science theory and practice

2. An ability to model, design, implement and test software systems in a way that demonstrates comprehension of the trade-offs involved in design and implementation choices

3. An ability to learn to use new design methodologies, operating systems, languages, and other software development tools within reasonable time constraints

4. An ability to function effectively on teams related to software development

5. An ability to communicate with others, both orally and in writing, about technical subjects

6. An understanding of professional, ethical and social responsibilities

7. Preparation to do continual learning throughout alumni careers, to include such things as pursuing advanced degrees, attending short courses, reading technical or trade journals, participating in sabbaticals, etc.

8. Preparation to pursue careers in all branches of computer science including technical development, project management, and technical sales

Degree Requirements

The bachelor of science degree in Computer Science requires the following:

- completion of at least 128 hours
- a minimum 2.0 average in all CS courses taken, in all CS 400-level (or higher) courses taken, and in all CU courses taken
- completion of the Computer Science Major Field Assessment test. This test will be given on a Saturday morning about three weeks prior to the end of the fall and spring semesters. A student must have completed 110 credit hours before taking the exam.
- CS majors must pass a Programming Proficiency Exam which is a prerequisite for CS 330 and all 400-

level CS courses. This exam is offered every semester and is typically taken after students have completed CS 145.

Course Requirements:
The courses for the degree are outlined as follows

Mathematics (21 semester hours)
MATH 135. Calculus I 4
MATH 136. Calculus II 4
MATH 215. Discrete Mathematics 3
MATH 235. Calculus III 4
MATH 313. Introduction to Linear Algebra 3
MATH 381. Probability and Statistics 3

Science (14 semester hours)
Physics: PES 111, 112, 115 9

Remaining hours selected from classes below 5
CHEM 103, 106; Biology: BIOL 110 and 111 or 115 and 116; GEOL 101 and 101L, 102 or additional physics courses that require PES 111 as a prerequisite.

Computer Science Core (38 semester hours)
CS 115. Principles of Computer Science 3
CS 145. Data Structures and Algorithms 3
CS 206. Programming with C 3
CS 208. Programming in UNIX 2
CS 216. Computer Organization and
Assembly Language Programming 3
CS 302 Advanced Object Technology using
C++/Net or/and
CS 306. Object-Oriented Programming in C++ 3
All Computer Science majors are required to take either CS 302 or CS 306 as a requirement for graduation. If both courses are taken one will count as a technical elective.
CS 316. Concepts of Programming Languages 3
CS 330. Software Engineering 3
CS 410. Compiler Design I 3
CS 420. Computer Architecture I 3
CS 450. Operating Systems I 3
CS 470. Computability, Automata,& Formal Languages . 3
CS 472. Design and Analysis of Algorithms 3

Computer Science Electives (9 semester hours)
CS 401–489 or 502–599 9

Technical Electives (9 semester hours)

Select from following list:
Computer Science (300 level or above)

Electrical and Computer Engineering (2000 level or above, except ECE 2400)

Mathematics (300 level or above, except MATH 465)

Science (additional courses from the list above or courses with prerequisites from above list)

Business (300 level or above, except 301, 302 or 303)

Humanities and Social Science (24 semester hours)
CS 305. 1 credit hour, Social and Ethical Implications of Computing, REQUIRED.

The remaining 23 credit hours involve study in humanities, social sciences, arts, and other disciplines that serve to broaden the background of the student.

Courses in the following departments and programs satisfy this requirement:

Anthropology (except courses on human biology and ecology), Art History, Communication, Economics, English (150 or above), Film, Foreign Culture Studies, Foreign Languages, History, Humanities, Interdepartmental Studies 101, Music (except university choir and private instruction courses), Philosophy, Political Science, Psychology, Religious Studies, Sociology, and Women's Studies. Students may also petition to include selected other courses in Interdepartmental Studies, Theater, or other departments.

Communications Skills (6 semester hours)
ENGL 131. Rhetoric & Writing I or
ENGL 141. Rhetoric & Writing II 3
ENGL 309. Technical Writing and Presentation 3

Free Electives (7 semester hours)
Any course that is a prerequisite course for a required course may not be counted as a free elective. A maximum of 3 credit hours of CS courses numbered less than CS 110 can be used as free electives, provided they are taken prior to a CS course numbered 116 or greater. Six credit hours of 200-level CS courses may be taken as free electives. At most, 3 credit hours of free electives may be taken in a particular programming language. Students planning to later enter a graduate program in computer science or electrical engineering are advised to take at least 6 hours of CS or ECE electives at the 300 or 400 levels. Students who complete their ROTC programs and receive their commissions are allowed up to six semester hours of ROTC course work as free electives toward their computer science degree.

Sample Schedule

Freshman Year

Fall Semester (15 semester hours)
CS 115. Principles of Computer Science 3
Math 135. Calculus I 4
Free Elective or CS110 2
ID 101 or other Humanities/Social Science 3
Engl 131. Rhetoric and Writing I 3

Spring Semester (17 semester hours)
CS 145. Data Structures & Algorithms 3
Math 136. Calculus II 4
CS 206 Programming with C 3
PES 111. General Physics I 4
Humanities/Social Science Elective 3

Sophomore Year

Fall Semester (17 semester hours)
CS 208. Programming in UNIX 2
CS 216. Computer Organization & Assembly Language Programming 3
Math 235. Calculus III 4
PES 112 General Physics II 4
PES 115. General Physics Laboratory I 1
ENGL 309. Technical Writing and Presentation 3

Spring Semester (17 semester hours)
CS 302 Advanced Object Technology Using C++/Net or CS 306. Object-Oriented Programming Using C++ . . . 3
Free Elective 3
Math 215. Discrete Mathematics 3
Science Elective (Chem 103 recommended) 5
Humanities/Social Science Elective 3

Junior Year

Fall Semester (16 semester hours)
CS 316 Concepts of Program Engineering 3
CS 472. Design and Analysis of Algorithms 3
Technical Elective Course 3
Math 313. Introduction to Linear Algebra 3
Humanities/Social Science Electives 4

Spring Semester (16 semester hours)
CS 305. Social and Ethical Implication of Computing . . 1
CS 330 Software Engineering 3
CS 420. Computer Architecture I 3
CS Elective (CS400–599) 3
Math 381. Probability and Statistics 3
Humanities/Social Science Elective 3

Senior Year

Fall Semester (15 semester hours)
CS 450. Operating Systems I 3
CS 470 Computability, Automats, and Formal Languages 3
CS Elective (CS400–599) 3
Technical Elective 3
Humanities/Social Science Elective 3

Spring Semester (15 semester hours)
CS 410. Compiler Design 3
CS Elective (CS400–599) 3
Technical Elective Course 3
Humanities/Social Science Elective 4
Free Elective 2
Total Credit Hours 128

Bachelor of Innovation ™ – Family of Degree Programs

Bachelor of Innovation™ in Computer Science: Please see http://innovation.uccs.edu/BI-details.html

Bachelor of Innovation™ in Computer Science Security: Please see http://innovation.uccs.edu/BI-details.html

Bachelor of Innovation™ in Game Design and Development

The Bachelor of Innovation™ in Game Design and Development (GDD) is a new degree within the Bachelor of Innovation™ family. It's a rigorous technical curriculum based heavily on computer science topics with important cross-disciplinary breadth in art and music. The program as a whole will let students build the foundational knowledge and develop the skills necessary to pursue employment in the games industry. In addition to games for entertainment, this industry includes Serious Games (games designed for simulation and training, educational games, games for healthcare, and so on) and Casual Games (small, short games played in a web browser or on a cell phone, for example).

The Bachelor of Innovation™ family requires an innovation core, a cross-disciplinary core, and a set of general education courses in addition to the rigorous technical degree. The combination of the GDD-specific course work and the core Bachelor of Innovation™ topics and experiences will position students to pursue a career at a traditional entertainment game development company; join a company that develops or utilizes Serious Games; form a new small company to develop Casual Games; or use the critical thinking, design, and teaming skills developed throughout the curriculum to pursue employment outside the games industry.

Degree Requirements

The Bachelor of Innovation™ in Game Design and Development degree requires the following:

- completion of at least 120 credit hours
- a minimum 2.0 grade point average in all computer science courses, GDD courses, and courses taken at the University of Colorado.

Course Requirements

The courses for the degree are as follows:
Innovation Core (27 semester hours)

Cross-discipline Core (21 semester hours)

Creative Communication Core, Business Core, or Globalization Core, outlined as follows

(Note: GDD students who select the Business Core or Globalization Core are required to take VA 101, VA 104, and VA 210 as free electives).

Mathematics (7 semester hours)
MATH 135. Calculus I 4

MATH 313. Introduction to Linear Algebra 3

Science (10 semester hours)
PES 111. General Physics I 4
PES 116. Advanced Physics Lab I 1
Remaining hours selected from classes below. 5
Biology, Chemistry, Geography and Environmental Studies, Geology, and Physics and Energy Science

English (3 semester hours)
Eng 131. Writing and Rhetoric 3

GDD Core (30 semester hours)
CS 110. Problem Solving through Game Creation 3
CS 302. Advanced OO Techniques using C#/.NET **OR** CS 306. Object-Oriented Programming in C++. 3
CS 335. Introduction to Game Design and Development 3
CS 478. Advanced 3D Games and Digital Content Creation 3
CS 480. Computer Graphics 3
GDD 120. Introductory Programming for Game Developers 3
GDD 220. Data Structures for Game Developers 3
GDD 410. Advanced Game Design Concepts 3
MUS 215. The Computer in Music 3
WMST 201. Gaming and Society: Gender and Ethnicity 3

GDD Concentration Requirements (15 semester hours)
Students select 15 hours of concentration courses related to game design and development from the table below. We believe that there will be a significant number of students interested in opportunities for even deeper exploration of GDD topics than undergraduate courses provide; the table below also includes a variety of graduate-level courses that are regularly taken by undergraduates at UCCS.
CS 422. Computer Networks 3
GDD 330. Modeling and Simulation for Games 3
GDD 360. Developing Serious Games. 3
GDD 440. Artificial Intelligence for Games. 3
GDD 450. Online Game Development 3
GDD 499. Independent Study 3
CS 575. Computational Geometry. 3
CS 576. Geometric Modeling. 3
CS 577. Animation and Visualization 3
CS 579. Wearable Computing and Complex Systems . . . 3
CS 581. Advanced Graphics 3
CS 677. Virtual Reality/HCI 3

Free Electives (7 semester hours)
Students select 7 hours of free elective courses from all the courses offered at UCCS.

The Bachelor of Innovation™ students are required to participate in research/innovation projects. Most of these will be industry-sponsored projects. Students employed full-time who wish to pursue a degree in this program will be required to sign IP agreements and have such agreements executed by their employer, or arrange for their employer to be one of the industry-sponsored projects.

Sample Schedule

Freshman Year

Fall Semester (15 semester hours)
CS 110. Problem Solving through Game Creation 3
ENGL 131. Rhetoric & Writing I. 3
INOV 101. The Innovation Process 3
MATH 135. Calculus I 4
Free Elective 2

Spring Semester (14 semester hours)
BUAD 100. Introduction to Entrepreneurship 3
GDD 120. Introductory Programming for Game Developers 3
PES 111. General Physics I 4
PES 116. General Physics Lab I. 1
VA 101. Beginning Studio-2D 3

Sophomore Year

Fall Semester (16 semester hours)
BLAW 201. Business and Intellectual Property Law 3
GDD 220. Data Structures for Game Developers 3
INOV 201. Innovation Team, Reporting & Analysis. . . . 1
LEAD 106. Leadership Communication 3
MUS 215. Computers in Music 3
VA 104. Beginning Drawing 3

Spring Semester (16 semester hours)
Comm 201. Oral Communication in the Workplace . . . 3
CS 302. Advanced OO Techniques using C#/.NET OR CS 306. Object-Oriented Programming in C++. 3
INOV 202. Innovation Team, Reporting & Analysis. . . . 1
INOV 210. Technical Writing, Proposals and Presentations 3
VA 210. Digital Imaging. 3
WMST 201. Gaming and Society: Gender and Ethnicity 3

Junior Year

Fall Semester (16 semester hours)
BUAD 390. Improving Personal and Team Creativity . . . 3
CS 335. Introduction to Game Design and Development 3
INOV 301. Innovation Team, Reporting & Analysis. . . . 1
Math 313. Introduction to Linear Algebra 3
GDD Concentration Course 3
Natural Science Elective. 3

Spring Semester (15 semester hours)
CS 480. Computer Graphics 3
INOV 302. Innovation Team, Design & Research 2
Creative Communication Core course 3

GDD Concentration Course 3
Natural Science Elective. 2
Free Elective 2

Senior Year

Fall Semester (14 semester hours)
CS 478. Advanced 3D Games and
Digital Content Creation 3
GSPA 498. Public Management in Global Context 3
INOV 401. Innovation Team, Design & Research 2
GDD Concentration Course 3
Free Elective 3

Spring Semester (14 semester hours)
BUAD 400. Government, Law, and Society. 3
GDD 410. Advanced Game Design Concepts 3
INOV 402. Innovation Team, Design & Research 2
GDD Concentration Course 3
GDD Concentration Course 3

Minor in Computer Science

General requirements

- at least 20 credit hours of course work
- every course in the minor must be completed with a grade of C or better.

The student will be responsible for any prerequisites to required courses. At most, 9 credit hours of transfer work may be applied to the minor.

Course Requirements

CS 145. Data Structures and Algorithms

CS 216.Computer Organization and Assembly Language Programming

CS 206. Programming with C CS 208. Programming in UNIX

Upper Division (9 hours minimum) selected from CS 300 or above courses

Minor in Game Design and Development

In 2004, computer game industry sales surpassed Hollywood box-office receipts for the first time. Also in 2004, Halo 2 had over $125M in sales on the first day it was available. Gamasutra's job site yields approximately 365 game-related job opportunities posted each month. Computer game design and development is clearly a viable career choice, and the demand for effective game developers is likely to continue experiencing significant growth for the foreseeable future.

Although many non-programming game topics are covered in the minor as described here, it does require strong programming skills. We therefore expect students completing the courses for the minor to either come from EAS or, in rare cases, from other colleges.

General Requirements

- 21 credit hours of course work
- All course work toward the minor must be completed with a grade of C or better.

At most 9 credit hours of transfer work may be applied to the minor.

Course Requirements

CS 110. Problem Solving through Game Creation
CS 145. Data Structures and Algorithms
CS 306. Object-Oriented Programming Using c++
CS 335. Introduction to Game Design and Development
CS 436 Game Design and Development Capstone Project
CS 478 Advanced 3D Games and Digital Contact Creation
CS 480. Computer Graphics
Math 313. Introduction to Linear Algebra

Computer Science Majors can complete the minor through careful selection of free, CS, and technical electives without increasing the number of credit hours in their program.

Other EAS majors will need to take up to 8 extra credit hours of course work; in some cases, departments will require petitions to count the game design and development courses as technical electives.

Master of Science – Computer Science

The Department of Computer Science offers a program leading to the Master of Science in Computer Science. Courses at the graduate level and the undergraduate courses required for admission to the graduate program are regularly offered in the late afternoon or evening to enable students from local industry to continue their studies.

Admission Requirements

1. An overall undergraduate grade-point average of 3.0 on a scale of 4.0. In special cases a student may be admitted with a lower grade-point average as a provisional degree student. Students with an average below 3.0 who completed their undergraduate degree a significant number of years ago will also be considered on an individual basis. Students with grade-point average deficiencies who take several undergraduate courses to meet entrance background requirements will have their performance in those courses considered in making the admission decision. Students who recently earned an undergraduate degree in computer science with a grade-point average below 3.0 may be asked to take the general GRE before they can be considered for admission. The Graduate Studies Committee will make the admissions decision on an individual basis.

2. Four semesters of mathematics courses: two semesters of university calculus, a course in discrete mathematics and one additional course of a mathematical nature.

3. Courses in computer science equivalent to the following courses: Principles of Computer Science (Java or C++), Data Structures and Algorithms, Programming in UNIX, Programming in C,

Computer Organization and Assembly Language Programming, Concepts of Programming Languages, and Software Engineering. A student who has completed the requirements for Principles in Computer Science and Data Structures and Algorithms but not the other computer science prerequisites could be admitted, but would still be required to take the unfulfilled prerequisites after admission. Students lacking four or more courses should register as an unclassified student until the courses are completed.

4. Additional requirements may be specified by the Graduate School.

Application forms may be obtained in the Engineering Advising Office and in the Computer Science Office.

Additional Degree Requirements

1. Graduate course work must include CS 550 (Operating Systems I), CS 570 (Computability, Automata, and Formal Languages) and CS 572 (Design and Analysis of Algorithms), if they have not been taken previously.

2. Up to 6 semester hours of graduate courses can be taken from other departments if first approved by the student's MS Advisory Committee.

3. At most four computer science courses may be taken that are cross-listed. Note that the three required courses are cross-listed; if taken, they are counted among the four.

4. After completion of 24 credit hours, a student must be continuously enrolled; a student has a maximum of two years to complete the program.

See also Graduate Degree Requirements for EAS and the Graduate School Requirements.

Master of Engineering – Software Engineering

Complex software-intensive systems permeate every aspect of our lives. These systems are among the most complex products humankind has ever tackled. Software engineering is the disciplined application of proven principles, techniques, and tools to the creation and maintenance of cost-effective, user friendly software systems that solve real problems.

To accommodate the demand for well educated software engineers in almost all industries today, UCCS has established the Master of Engineering degree in Software Engineering. UCCS offers a unique environment to study, learn, and share experiences surrounding this special engineering discipline. Our faculty comes from a broad spectrum of backgrounds. Many have had years of experience in industry prior to joining the faculty. The result is a diverse melting pot of ideas, technologies, and experiences.

Courses at the graduate level (and the undergraduate courses required for admission to the graduate program) are regularly offered in the late afternoon and evening to enable students from local industry to continue their studies.

Admission Requirements

1. A Bachelor of Science or a Bachelor of Arts degree in mathematics, computer science, engineering, information systems.

2. An overall undergraduate grade point average of 3.0 (on a scale of 4.0; awarded within the past five years) or minimum 1800 GRE (verbal + quantitative + analytic). Applicants with a grade point average of less than 3.0 awarded more than five years ago will be admitted on a case-by-case basis. Applicants with a grade point average between 2.75 and 3.0 awarded within the past five years may be admitted provisionally.

3. It is recommended that the applicant have two years experience with commercial, industrial or Government software development or maintenance. A concise statement of experience and career goals.

4. Completed Admission Forms, including two copies of official transcripts and references from four people sent to the Computer Science Department.

Program Prerequisites

Knowledge of modern programming language, e.g. Java, C++

Data Structures and Algorithms (CS 145)

Software Engineering Basics (CS 330)

Note: Some of these courses may have prerequisites. Any comparable course from another approved university will suffice.

Course Requirements

A total of 30 semester hours of graduate course work is required, as follows:

CS-531 Software Requirements Analysis and Specifications
CS-532 Software Design
CS-534 Software Maintenance
CS-535 Software Project Management
CS-536 Software Product Assurance

Plus one of the following options:

I. CS 539. Capstone **OR** CS 701 Project
Plus four elective graduate computer science courses.

II. CS 700. Thesis (6 credits)
Plus three elective graduate computer science courses

In either option, a maximum of two cross-listed courses can be applied to the requirements of the degree program.

Additional Graduate Degree Requirements

See also Graduate Degree Requirements for EAS and the Graduate School Requirements.

Master of Engineering – Information Assurance

Network and system security has become very critical and increasingly urgent in today's network and information systems. Information Assurance deals with operations that protect and defend information and information systems by

ensuring their availability, integrity, authentication, confidentiality, and non-repudiation. The Information Assurance curriculum includes courses designed to prepare individuals, who engineer computer/network systems or develop policy for these systems, with knowledge of methods, techniques, and tools used in information assurance.

These courses are regularly offered in the late afternoon and evening to provide a more ideal time slot for the working professional.

Our MEIA degree program and curriculum are certified by the National Security Agency's (NSA) Committee on National Security Systems (CNSS and meet the Information Assurance Professional (4011) Training Standards. Successful graduates of the MEIA degree program will receive the CNSS Information Assurance Professional (4011) certificate without additional testing requirements.

Admission Requirements

1. A Bachelor of Science or a Bachelor of Arts degree in mathematics, computer science, engineering information systems, or equivalent.
2. An overall undergraduate grade point average of 3.0 (on a scale of 4.0; awarded within the past five years) or minimum 1800 GRE (verbal + quantitative + analytic). Applicants with a grade point average of less than 3.0 or with degrees awarded greater than five years ago will be admitted on a case by case basis. Applicants with a grade point average between 2.75 and 3.0 awarded within the past five years may be admitted provisionally.
3. It is recommended the applicant have two years experience with commercial, industrial or government software development or system/network administration.
4. Completed Application Forms, including two copies of official transcripts, references from four people, and a concise statement of experience and career goals sent the Department of Computer Science.

Program Prerequisites

Knowledge of a modern programming language, e.g., Java or C++

CS - 145 Data Structures and Algorithms CS - 208 Programming in Unix

CS - 216 Computer Organization and Assembly Language Programming

Degree Requirements

Required Core Courses

(15 credit hours, common to both the Thesis option and Non-Thesis option):
CS - 520 Computer Architecture
CS - 522 Computer Communications
CS - 550 Operating Systems I
CS - 591 Fundamentals of Computer/Network Security
CS - 592 Applied Cryptography for Secure Communications

Degree Completion Courses:

(15 credit hours) Two options are available: Thesis or Non-Thesis.

1. Thesis option:
   a. Complete CS - 700 Master Thesis (6 credit hours)
   b. Complete 3 courses from the approved list of courses. The Graduate Studies Committee must approve the courses selected.
2. Non-Thesis option:
   a. Complete CS - 701 Master Project (3 credit hours)
   b. Complete 4 courses from the approved list of courses. The Graduate Studies Committee must approve the courses selected.

Transfer Credit

Up to 9 hours of graduate work may be transferred from an accredited graduate program, provided:

- The course work has not been used for any other degree,
- Grade earned for the course(s) is B or better,
- The course work has been taken within the past six years,
- The course coverage is equal in level, content, and depth to the course for which it is being substituted.

Additional Graduate Degree Requirements

See also Graduate Degree Requirements for EAS and the Graduate School Requirements.

Certificate in Software Engineering

The College of Engineering and Applied Science offers a Certificate in Software Engineering to qualified students. The program has two purposes: (1) to provide employees of local companies with an opportunity to enhance their software engineering skills and their chances for career advancement, and (2) to provide students currently enrolled in the Masters of Science in Computer Science (MSCS) with more in-depth knowledge in software engineering to enhance employability and career advancement. Please call or write the Department of Computer Science for more information.

Certificate in Information Assurance

The UCCS Computer Science Department offers a set of four graduate courses on campus or on-site through continued education arrangement leading to a certificate in Information Assurance. These courses prepare individuals (who engineer computer-based systems or develop policy and doctrine for systems where information assurance is an objective) with knowledge of the methods, techniques, and tools used in information assurance.

The four courses are certified by the National Security Agency's (NSA) Committee on National Security Systems

(CNSS) and meet the Information Assurance Professional (4011) Training Standards. These courses can count towards the MEIA degree. Successful graduates of the MEIA degree program will receive the CNSS Information Assurance Professional (4011) certificate without additional testing requirements.

Certificate in Secure Software Systems

The UCCS Computer Science Department offers a set of graduate courses on campus or on-site through continuing education arrangements that lead to a Certificate in Secure Software Systems. Students completing the four courses will receive a Graduate Certificate in Secure Software Systems from UCCS. In addition, the courses can constitute 40% of the following programs: Master of Science in Computer Science; Master of Engineering, Information Assurance (MEIA) or Software Systems Engineering (MESSE) options. In addition, the courses can be used in the PhD in Engineering degree program.

Our MEIA degree program and curriculum are certified by the National Security Agency's (NSA) Committee on National Security Systems (CNSS) and meet the Information Assurance Professional (4011) Training Standards. Successful graduates of the MEIA degree program will receive the CNSS Information Assurance Professional (4011) certificate without additional testing requirements.

PhD in Engineering – Concentration in Computer Science

The Department of Computer Science supports the PhD in engineering program with a concentration in computer science. Students who are interested in research areas with an emphasis in computer science and would like to pursue the PhD in Engineering degree contact the Department at (719) 262-3544.

Department of Electrical and Computer Engineering

Engineering Building, Room 299
(719) 262-3351/3548
Fax: (719) 262-3589
http://eas.uccs.edu/ECE
E-mail:ecedept@eas.uccs.edu

Faculty

Professor Emeritus: Kwor, Norgard, Oleszek; ***Professors:*** Araujo, Ciletti, Dandapani (Chair), Kalkur, Sega, Wang, Wickert, and Ziemer; ***Associate Professors:*** Plett; ***Instructor:*** Pauls.

Programs Coordinated by the Department:

Minor in Computer Engineering

Minor in Electrical Engineering

Bachelor of Innovation in Electrical Engineering

Bachelor of Science in Computer Engineering

Bachelor of Science in Electrical Engineering

Master of Science in Electrical Engineering

PhD program in Engineering, Electrical Engineering Concentration

Computer and Electrical Engineering Study

Electrical and computer engineering harnesses the properties of electricity and materials to make possible a variety of devices and systems used for communication, computation, robotic control, navigation, remote sensing, medical imaging, and power generation and transmission.

In today's world, engineers are involved in a host of design activities. They design complex integrated circuits used in computers and communications equipment, as well as the processes that fabricate arrays of transistors in materials such as silicon and gallium arsenide. They develop the control logic that determines how industrial robots operate and create sophisticated computer programs that allow computers and robots to behave as though they have vision. Electrical engineers play a key role in the design of radar equipment used for navigation in virtually all spacecraft, aircraft, and ships, as well as the brains found in microwave ovens and automobile engines. Some specialize in the engineering of modern, high-speed, digital computers. Many also function effectively in management, marketing and sales efforts of corporations that create technical products. Others pursue advanced studies and participate in the education of other engineers.

The Department of Electrical and Computer Engineering (ECE) offers course work leading to undergraduate (BSEE) and graduate (MSEE and PhD) degrees in electrical engineering and undergraduate degree in computer engineering. The BS degree in computer engineering (BSCpE) is offered jointly with the Computer Science Department.

Accreditation

The BSEE and BSCpE degrees at UCCS are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

Bachelor of Science – Electrical Engineering

Objectives

The educational objectives of the Bachelor of Science degree program in Electrical Engineering are statements that describe the accomplishments of graduates 3-5 years post-graduation:

- **Illuminate**- lifelong learning in electrical engineering

  Alumni are expected to learn new engineering technologies as needed and pursue graduate school or technology careers, including but not limited to technical development, project management, and technical sales.

- **Investigate**- demonstration of electrical engineering principles

Alumni should have the ability to find and access information relevant to an application under development and have the ability to understand and approach various engineering problems and convert their solutions into engineering products.

- **Innovate**- creative application of electrical engineering principles

Alumni should be able to apple the theory and techniques of electrical engineering- circuit design, communication systems, computer design, control systems, digital design, electromagnetics, microelectronics, signal processing- to innovate real-world solutions.

Outcomes

The Department of Electrical and Computer Engineering has established the following educational outcomes for the Bachelor of Science degree program in Electrical Engineering (BSEE). By the time of graduation, students are expected to demonstrate:

- An ability to apply knowledge of mathematics, science, and engineering
- An ability to design and conduct experiments as well as to analyze and interpret data
- An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multi-disciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The acquisition of the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and social context
- A recognition of the need for, and an ability to engage in life-long learning
- A knowledge of contemporary issues
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Degree Requirements

The Bachelor of Science degree in Electrical Engineering requires the following:

- completion of at least 128 hours
- participation in the Exit Interview
- a minimum 2.0 average in all ECE and CU courses taken
- a minimum 2.0 in ECE 1411, ECE 2610, and ECE 2411.

Course requirements:

Mathematics (18 semester hours)

MATH 135. Calculus I 4
MATH 136. Calculus II 4
MATH 235. Calculus III 4
MATH 340. Intro to Differential Equations 3
Mathematics Elective (311 or above except 381) 3

Basic Science (16 semester hours)

PES 111. General Physics I 4
PES 112. General Physics II 4
PES 213. General Physics III 3
Select 5 hours from the following list; a lab must be included: CHEM103-5, CHEM106-5, BIOL110-3, BIOL111-1, BIOL115-3, BIOL116-1, GEOL101-4, GEOL102-4 or any other PES course that has a prerequisite of PES111.

Computer Background (6 semester hours)

ECE 1001. Introduction to Robotics **OR**
ID 101 Freshman Seminar: Mindstorms 3
ECE 1021. Computer-Based Modeling &
Methods of Engineering 3

Social Sciences and Humanities (15 semester hours)

(See Social Sciences/Humanities Requirements below) 15

Studies in the humanities and social sciences serve not only to meet the objectives of a broad education, but also to meet the objectives of the engineering profession. EE students are required to take at least 15 credits of social sciences and humanities so they are more aware of their social responsibilities and better able to consider related factors in the decision making process. To ensure this, a minimum of nine hours in social sciences and six hours in humanities, or vice versa, must be taken; at least six of these hours must be beyond the introductory level (200 level or higher courses). Breakouts by area are as follows:

Social Science Departments: Anthropology, Communications, Economics, Geography and Environmental Studies, Gerontology, Political Science, Psychology, Sociology, and Women's Studies

Humanities Departments: Art History, Ethnic Studies, English (150 or higher classes), History, Humanities, Music (except choir or lessons), and Philosophy

Communication Skills (6 semester hours)

ENGL 131. Rhetoric & Writing I or
ENGL 141. Rhetoric & Writing II 3
ENGL 309. Technical Writing & Presentation 3

Electrical Engineering Core (44 semester hours)

ECE 1411, 2411. Logic Circuits I, II 4
ECE 2050. Introduction to Physical Electronics 3
ECE 2205, 3205. Circuit and Systems I, II 8
ECE 2610 Introduction to Signals and Systems 4
ECE 3020. Semiconductor Devices I 3
ECE 3110. Electromagnetic Fields I 3
ECE 3210, 3220. Electronics I, II 6

ECE 3230, 3240. Electronics Laboratory I, II 2
ECE 3420. Microprocessor Systems Laboratory 1
ECE 3430. Intro to Microcomputer Systems 3
ECE 3610. Engineering Probability & Statistics 3
ECE 4890. Senior Seminar 1
ECE 4899. Design Project 3

Electrical Engineering Technical Elective Requirements (14 semester hours)

Select any four from the following eight three-credit hour courses: (Students must meet course prerequisites)
ECE 3120. Electromagnetic Fields II ECE 4020. Semiconductor Devices II
ECE 4242. Advanced Digital Design Methodology
ECE 4340. VLSI Circuit Design I
ECE 4480. Computer Architecture and Design
ECE 4510. Feedback Control Systems
ECE 4625. Communication Systems I
ECE 4650 Modern Digital Signal Processing
Total Specified Technical Electives 12

And, select any two of the following one-credit hour specialty labs: (Students must meet course prerequisites)
ECE 3440. Microcomputer Systems Laboratory
ECE 4040. Introductory VLSI Fabrication Laboratory
ECE 4150. Microwave Measurements Laboratory
ECE 4200. Advanced Digital Design Laboratory
ECE 4530. Control Systems Laboratory
ECE 4560. Digital Control Laboratory
ECE 4670. Communications Laboratory
ECE 4680. Signal Processing Laboratory
Total Specialty Labs 2

Technical Electives (9 hours)

Technical electives may be chosen from this list:
ECE courses at 3000 or 4000 level, BIOL300-3, BIOL302-3, BIOL310-3, BIOL314-3, BIOL321-3, BIOL322-3, BIOL330-3, BIOL333-3, BIOL360-3, BIOL361-3, BIOL370-3, BIOL383-3, BIOL391-3, CHEM301-3, CHEM330-3, CHEM331-3, CHEM332-3, CHEM333-3, CHEM334-3, CHEM337-2, CHEM338-2, CHEM340-2, CHEM341-3, PES306-3, PES313-3, PES321-3, PES341-3, PES365-3, PES367-3, CS301-3, CS306-3, CS316-3, CS330-3, MAE3130-3, MAE3135-3, MAE3201-3, MAE3310-3, MAE3401-3, MAE3560-3, MATH311-3, MATH313-3, MATH341-3, MATH350-3, MATH351-3. Other courses in BIOL, CHEM, CS, MAE, MATH and PES numbered 400/4000+ may be accepted with a petition completed prior to taking the course.

Sample Schedule

Freshman Year

Fall Semester (16 semester hours)
MATH 135. Calculus I 4
ENGL 131. Rhetoric and Writing I 3
PES 111. General Physics I 4
ECE 1001. Introduction to Robotics 3
ECE 1411. Logic Circuits I 2

Spring Semester (16 semester hours)
MATH 136. Calculus II 4
PES 112. General Physics II 4
ECE 1021. Computer-Based Modeling & Methods of Engineering 3
ECE 2411. Logic Circuits II 2
Social Sciences/Humanities Elective 3

Sophomore Year

Fall Semester (16 semester hours)
MATH 235. Calculus III 4
Science Elective with Laboratory 5
ECE 2610. Intro to Signals and Systems 4
Social Sciences/Humanities Elective 3

Spring Semester (16 semester hours)
MATH 340. Introduction to Differential Equations 3
PES 213. General Physics III 3
ECE 2050. Introduction to Physical Electronics 3
ECE 2205. Circuits and Systems I 4
ENGL 309. Technical Writing & Presentation 3

Junior Year

Fall Semester (15 semester hours)
ECE 3020 Semiconductor Devices 3
ECE 3205. Circuits and Systems II 4
ECE 3210. Electronics I 3
ECE 3230. Electronics Laboratory I 1
ECE 3420. Microprocessor Systems Laboratory 1
ECE 3430. Intro to Microcomputer Systems 3

Spring Semester (17 semester hours)
ECE 3110 Electromagnetic Fields I 3
ECE 3220. Electronics II 3
ECE 3240. Electronics Laboratory II 1
ECE 3610. Engineering Probability & Statistics 3
Technical Electives 4
Social Sciences/Humanities Elective 3

Senior Year

Fall Semester (16 semester hours)
ECE 4890. Senior Seminar 1
Technical Electives 9
Mathematics Elective 3
Social Sciences/Humanities Elective 3

Spring Semester (16 semester hours)
ECE 4899. Design Project 3
Technical Electives 10
Social Sciences/Humanities Elective 3
Total Hours 128

Minor in Electrical Engineering

General Requirements

The minor in Electrical Engineering requires the following:

- at least 22 credit hours of course work (The student will be responsible for any prerequisites to required courses.)
- every course in the minor must be completed with a grade of C or better.

At most, 9 credit hours of transfer work may be applied to the minor.

Required Courses

Minor courses with associated areas are as follows:

Required Core Courses (10 hours)
ECE 1001. Introduction to Robotics
ECE 1021. Computer Based Modeling & Methods in Engineering
ECE 2610 Introduction to Signals and Systems

Choose one of the following areas:

Computers (14 hours)
ECE 1411. Logic Circuits I
ECE 2411. Logic Circuits II
ECE 3420. Microprocessor Systems Laboratory
ECE 3430. Introduction to Microcomputer Systems
ECE 3440. Microcomputer Systems Laboratory
ECE 4480. Computer Architecture and Design

Electronics (15 hours)
ECE 2050. Introduction to Physical Electronics
ECE 2205 Circuits and Systems 1
ECE 3210. Electronics I
ECE 3220. Electronics II
ECE 3230. Electronics Laboratory I
ECE 3240. Electronics Laboratory II

Electromagnetics (13 hours)
ECE 2205 Circuits and Systems I
ECE 3110. Electromagnetic Fields I
ECE 3120. Electromagnetic Fields II
ECE 4110. Electromagnetic Theory and Applications

ECE 4110. Electromagnetic Theory and Applications Systems (14 hours)
ECE 2205 Circuits and Systems I
EC 3205 Circuits and Systems II
ECE 3610. Engineering Probability & Statistics

and one of the following:
ECE 4510. Feedback Control Systems
ECE 4625. Communication Systems 1

Bachelor of Science – Computer Engineering

Objectives

The educational objectives of the Bachelor of Science degree program in Engineering are statements that describe the accomplishments of graduates 3-5 years post-graduation:

- **Illuminate –** lifelong learning in computer engineering

Alumni are expected to track state-of-the-art technology in computer engineering, to learn new processes, tools and device technologies, and to apply this knowledge in pursuit of graduate school work and/or technology careers – including but not limited to technical development, project management and technical sales.

- **Investigate –** demonstration of computer engineering principles

Alumni should have the ability to find and access information relevant to an application under development, be able to model various problem domains, and to apply techniques of algorithm, hardware and system design to new problem solutions as a productive technical team member.

- **Innovate –** creative application of computer engineering principles

Alumni should be able to apply the general principles of computer engineering to innovative real-world problem solutions that demonstrate consideration for aesthetics, economics, ergonomics, ethics, safety, and sustainability.

Outcomes

The Department of Electrical and Computer Engineering has established the following educational outcomes for the Bachelor of Science degree program in Computer Engineering (BSCpE). By the time of graduation, students are expected to demonstrate:

- An ability to apply knowledge of mathematics, science, and engineering
- An ability to design and conduct experiments as well as to analyze and interpret data
- An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multi-disciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The acquisition of the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and social context
- A recognition of the need for, and an ability to engage in life-long learning
- A knowledge of contemporary issues

- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Degree Requirements

The Bachelor of Science Degree in Computer Engineering requires the following:

- completion of at least 128 hours
- participation in the Exit Interview
- a minimum 2.0 average in all ECE, CS and CU courses taken
- a minimum 2.0 in CS 115, CS 145, ECE 1411, ECE 2411 and ECE 2610.

Course Requirements

Mathematics (18 semester hours)

Math 135. Calculus I 4
Math 136. Calculus II 4
MATH 215. Discrete Mathematics 3
Math 235. Calculus III 4
MATH 340. Intro to Differential Equations. 3

Basic Science (14 semester hours)

PES 111. General Physics I 4
PES 112. General Physics II 4
Science 6

Select 6 hours from the following list;
CHEM103-5, CHEM106-5, BIOL110-3, BIOL111-1, BIOL115-3, BIOL116-1, GEOL101-4, GEOL102-4 or any other PES course that has a prerequisite of PES111.

Computer Background (6 semester hours)

ECE 1001. Introduction to Robotics OR
ID 101 Freshman Seminar: Mindstorms 3
ECE 1021. Computer-Based Modeling &
Methods of Engineering 3

Social Sciences and Humanities (15 semester hours)

(See Social Sciences/Humanities Requirements below) 15

Studies in the humanities and social sciences serve not only to meet the objectives of a broad education, but also to meet the objectives of the engineering profession. CpE students are required to take at least 15 credits of social sciences and humanities so they are more aware of their social responsibilities and better able to consider related factors in the decision making process. To ensure this, a minimum of nine hours in social sciences and six hours in humanities, or vice versa, must be taken; at least six of these hours must be beyond the introductory level (200 level or higher courses).

Breakouts by area are as follows:

Social Science Departments: Anthropology, Communications, Economics, Geography and Environmental Studies, Gerontology, Political Science, Psychology, Sociology, and Women's Studies

Humanities Departments: Art History, Ethnic Studies, English (150 or higher classes), History, Humanities, Music (except choir or lessons), and Philosophy

Communication Skills (6 semester hours)

ENGL 131. Rhetoric and Writing I or
ENGL 141. Rhetoric and Writing II 3
ENGL 309. Technical Writing 3

Computer Engineering Core (Lower Division) (20 semester hours)

ECE 1411. Logic Circuits I 2
ECE 2610 Introduction to Signals and Systems 4
ECE 2205 Circuits and Systems I 4
ECE 2411. Logic Circuits II 2
CS 115. Principles of Computer Science 3
CS 145. Data Structures & Algorithms 3
CS 208. Programming in UNIX 2

Computer Engineering Core (Upper Division) (36 semester hours)

ECE 3210. Electronics I 3
ECE 3420. Microprocessor Laboratory 1
ECE 3430. Intro to Microcomputer Systems 3
ECE 3440. Microcomputer Systems Laboratory 1
ECE 3610. Engineering Probability & Statistics 3
ECE 4242. Advanced Digital Design Methodology 3
ECE 4330. Embedded Systems Design 3
ECE 4480. Computer Architecture and Design OR
CS 420. Computer Architecture I 3
CS 306. Object-Oriented Programming Using C++ . . . 3
CS 330. Software Engineering 3
CS 450. Operating Systems I 3
CS 472. Design and Analysis of Algorithms 3
ECE 4890. Senior Seminar 1
ECE 4899. Design Project 3

Technical Electives (10 semester hours)

Select at least 10 hours from the following: (Students must meet course prerequisites)
ECE 2050. Introduction to Physical Electronics
ECE 3020. Semiconductor Devices I
ECE 3110. Electromagnetic Fields I
ECE 3120. Electromagnetic Fields II
ECE 3205 Circuits and Systems II
ECE 3220. Electronics II
ECE 3230. Electronics Laboratory I
ECE 3240. Electronics Laboratory II
ECE 4200. Advanced Digital Design Laboratory
ECE 4211. Rapid Prototyping with FPGAs
ECE 4220. Analog IC Design
ECE 4320. Fault Detection & Design for Testability
ECE 4362. Synthesis with Verilog HDL
CS 301. Web Programming
CS 302 Advanced Object Technology Using C++/NET
CS 316. Concepts of Programming Languages
CS 335 Intro to Game Design and Development
CS 410. Compiler Design I CS 422 Computer Networks
CS 442. Data Base Systems I CS 460. Numerical Computing

CS 470. Computability, Automata and Formal Languages
CS 480. Computer Graphics CS 482. Artificial Intelligence I
MATH 313. Introduction to Linear Algebra
Other courses in CS, ECE, MAE, MATH, and PES numbered 300+ (except MATH301 and 302) may be accepted with a petition completed prior to taking the course.
Free Electives 3

Sample Schedule

Freshman Year

Fall Semester (16 semester hours)
MATH 135. Calculus I 4
ENGL 131. Rhetoric and Writing I 3
ECE 1001. Introduction to Robotics 3
CS 115. Principles of Computer Science 3
Social Sciences/Humanities Course 3

Spring Semester (17 semester hours)
MATH 136. Calculus II 4
PES 111. General Physics I 4
ECE 1021. Computer-Based Modeling
& Methods of Engineering 3
CS 145. Data Structures & Algorithms 3
Social Sciences/Humanities Course 3

Sophomore Year

Fall Semester (16 semester hours)
MATH 235. Calculus III 4
PES 112. General Physics II 4
ECE 2610 Introduction to Signals and Systems 4
ECE 1411. Logic Circuits I 2
CS 208. Programming in UNIX 2

Spring Semester (15 semester hours)
MATH 215. Discrete Mathematics 3
ECE 2205 Circuits & Systems I 4
ECE 2411. Logic Circuits II 2
CS 330. Software Engineering 3
Distribution Course 3

Junior Year

Fall Semester (16 semester hours)
ECE 3210. Electronics I 3
ECE 3420. Microprocessor Systems Laboratory 1
ECE 3430. Intro to Microcomputer Systems 3
ECE 4242. Advanced Digital Design Methodology 3
CS 306. Object-Oriented Programming Using C++ . . . 3
ENGL 309 Technical Writing 3

Spring Semester (16 semester hours)
MATH 340. Intro to Differential Equations 3
ECE 3440. Microcomputer Systems Laboratory 1
ECE 3610. Engineering Probability & Statistics 3
ECE 4480. Computer Architecture and Design or
CS 420. Computer Architecture I 3
CS 472. Design & Analysis of Algorithms. 3
Distribution Course 3

Senior Year

Fall Semester (16 semester hours)
ECE 4330. Embedded Systems Design 3
ECE 4890. Senior Seminar 1
CS 450. Operating Systems I 3
Technical Electives 3
Distribution Course 6

Spring Semester (16 semester hours)
ECE 4899. Design Project 3
Technical Electives 7
Distribution Course 3
Free Elective 3
Total Hours 128

Minor in Computer Engineering

General Requirements
The minor in Computer Engineering requires the following:

- at least 25 credit hours of course work (The student will be responsible for any prerequisites to required courses.)
- a 2.0 minimum is required on all coursework.

Course Requirements
Minor courses are as follows:
ECE 1001. Introduction to Robotics
ECE 1021. Computer Based Modeling and Methods in Engineering
ECE 1411. Logic Circuits I
ECE 2411. Logic Circuits II
ECE 3420. Microprocessor Systems Laboratory
ECE 3430. Introduction to Microcomputer Systems
CS 115. Principles of Computer Science
CS 145. Data Structures & Algorithms
CS 115. Principles of Computer Science
CS 145. Data Structures & Algorithms
CS 208. Programming in UNIX
CS 330. Software Engineering

Bachelor of Innovation™ in Electrical Engineering

Objectives
The Bachelor of Innovation™ in Electrical Engineering will provide students with both the technical and business background to work on innovative electrical engineering-related projects, including the ability to:

- recognize the broader issues in electrical engineering technology-related problems
- understand the technological, business, legal and societal constraints affecting this technology
- communicate the key issues, needs, potential options, and final solution to a challenge.

Outcomes
The program seeks to prepare students for successful careers and lifelong learning. In addition to the technical competence to be expected of a graduate with a bachelor's degree in electrical engineering, students will develop the critical thinking skills, multi-faceted team oriented skills and basic business background to ensure that they can effectively compete in the changing technological career landscape for positions that are unlikely to be off-shored.

Degree Requirements
The Bachelor of Innovation™ degree in Electrical Engineering requires the following:

- completion of at least 128 credit hours
- participation in the Exit Interview
- a minimum 2.0 grade point average in all ECE courses and all courses taken at the University of Colorado
- a minimum 2.0 in ECE 1411, ECE 2205 and ECE 2411.

Course Requirements
The courses for the degree are outlined as follows:

Innovation Core (27 credits, 15 of which are HSS)

Business Core (21 credits, 6 of which are HSS) **OR Globalization Core** (21 credits, all of which are HSS)

Mathematics (18 credits):
MATH 135. Calculus I 4
MATH 136. Calculus II 4
MATH 235. Calculus III 4
MATH 340. Intro to Differential Equations. 3
ECE 3610. Engineering Probability & Statistics 3

Science (11 credits):
Physics: PES 111, 112, 213 11

English (3 credits):
Eng 131 Writing and Rhetoric 3

EE Core (39 credits)
ECE 1001 Intro to Robotics. 3
ECE 1411, 2411. Logic Circuits I, II 4
ECE 1021. Computer Based Modeling 3
ECE 2050. Introduction to Physical Electronics 3
ECE 2205, 3205 Circuits and Systems I, II 8
ECE 2610. Introduction to Signals and Systems 4
ECE 3020. Semiconductor Devices I. 3
ECE 3110. Electromagnetic Fields I 3
ECE 3210 Electronics I 3
ECE 3230 Electronics Laboratory I 1
ECE 3420. Microprocessor Systems Laboratory 1
ECE 3430. Intro to Microcomputer Systems 3

Electives (9 credits)
Technical Electives: Select from Electrical and Computer Engineering (3000 level or above) and Computer Science (300 level or above)

Master of Science – Electrical Engineering

The Department of Electrical and Computer Engineering offers coursework and thesis supervision leading to the degree Master of Science in Electrical Engineering (MSEE).

Courses at the graduate level are ordinarily taught at 8:00 a.m. or after 4:30 p.m. to enable students from local industry to continue their studies.

Learning Objectives - MS, Electrical Engineering

- Be able to read, interpret, and critically assess literature in specialized fields of electrical engineering and to evaluate its impact on current issues on engineering and society.
- Be able to write acceptable technical reports and other documentation.
- Be able to give acceptable oral presentations of a technical nature.
- Be able to apply basic and advanced knowledge in science, mathematics, and engineering disciplines to perform analysis and synthesis of engineering problems.

Admission Requirements

Guaranteed early admission

A student who is in his or her final semester studying toward either a BSEE or BSCpE at UCCS is guaranteed admission to the MSEE program if he or she satisfies the following criteria:

- The student must have completed a minimum of 45 semester hours at UCCS at the time of graduation with the BS degree.
- The student must be registered in his or her final undergraduate semester (in either the BSEE or BSCpE programs) at the time of application to the MSEE program.
- The student must have a minimum undergraduate GPA of 3.25.
- The student must submit a letter of recommendation from the current department chairperson.

Early admission is not available to students who are not residents of the United States of America.

Fast-track admission

The fast-track admission process is designed to offer a more efficient admission process to former undergraduate students who have graduated from UCCS no more than four years prior to the time of application to a graduate program. A student applying under the fast-track admission rules must submit the following to the Department:

- The Fast-Track Admission application form, accurately and completely filled out.
- A completed residency form (back of application form), if the student claims in-state-tuition eligibility.
- A check or money order (for the appropriate amount) non-refundable application fee.
- Official transcripts for any university level studies attempted after graduation from UCCS.
- A statement giving permission to the ECE graduate program office to obtain an internal transcript from SIS for the applicant. These forms are available from the ECE office, and must be signed by the student.
- A letter of recommendation (which may consist of a signed letter from the chairperson of the student's former undergraduate department). Any student with a record that will only allow provisional admission must provide a minimum of two letters of recommendation, using the forms available from the ECE office.

Fast-track admission is only available to graduates of the College of EAS.

Regular Admission

Regular admission to the MSEE program requires the following:

- a 3.0 undergraduate grade-point-average (GPA)
- The Graduate Record Examinations (GRE) may be required of any student whose GPA falls below this average or is not a graduate of an ABET accredited undergraduate program in electrical engineering. The verbal reasoning and quantitative reasoning portions of the GRE are required of all foreign applicants.
- Graduates of foreign universities are required to take the TOEFL exam: A score of 550–600 on the paper-based exam, or 79–80 on the internet-based exam, or 213–250 on the computer-based exam is required.

Note that units completed before admission may not all be transferable into a graduate degree program.

Provisional Admission

Students not admitted on a regular basis may be admitted on a provisional basis depending on their overall application file, including GPA, GRE, letters of recommendation, etc. Students admitted on a provisional basis are often required to take remedial courses (these are specified in the letter of acceptance). Registration for such remedial courses must commence with the first semester of a student's program with at least three credits completed per semester until all remedial requirements are satisfied.

Application Deadlines

Applications are reviewed on a continual basis, but need to be received by April 1 (fall admission) or October 1 (spring admission) for students who are applying for assistantships. It is recommended that international students apply at least 3 months prior to the start of the semester to allow time to request a visa.

For more information about these programs, contact

the Department of Electrical and Computer Engineering, Graduate Program, Engineering Bldg. Room 299, or call (719) 262-3351. Send email to ecedept@eas.uccs.edu or see our webpage at eas.uccs.edu/ECE/.

Duration of Program

The completion of the MSEE degree is normally accomplished in one to three years, and should be accomplished in six years, commencing with the beginning of course work.

A student who is not continuously enrolled (missing three consecutive semesters) becomes inactive and is subject to the rules governing Readmission of Former Students outlined in the Graduate School procedures.

Degree Requirements

Thesis option:

- 30 semester hours total. 24 semester hours of course work. 6 hours of thesis credit.
- At least 18 semester hours must be ECE courses. The remaining 6 semester hours may be replaced by allied department courses (e.g., computer science, mathematics, physics, mechanical and aerospace engineering, etc.).
- At most 6 semester hours may be independent study courses.
- All course work must be numbered 5000 and above if ECE, or 400(0) and above if non-ECE.
- Up to nine semester hours of accepted course work may be transferred from another university or from course work taken as an unclassified student.

Non-Thesis option:

- 30 semester hours total; all 30 semester hours are course work.
- At least 24 semester hours must be ECE courses.
- The remaining 6 semester hours may be replaced by allied department courses (e.g., computer science, mathematics, physics, mechanical and aerospace engineering, etc.).
- At most 6 semester hours may be independent study courses.
- All course work must be numbered 5000 and above if ECE, or 400(0) and above if non-ECE. Up to nine semester hours of accepted course work may be transferred from another university or from course work taken as an unclassified student.
- There are no additional requirements as to which specific courses a student must take. The student's selection of courses need only meet the above requirements and be approved by the student's academic advisor and the departmental graduate studies committee.
- The non-thesis student must choose an Advisory Committee with the same composition as a Thesis Committee; choose a subject for his/her Masters Report that must be approved by his/her academic advisor; and make an oral presentation and submit a written report to the advisory committee. Both must be approved by the advisory committee.

Grades

The student must have an overall graduate GPA of 3.0 in order to graduate. The student must have a grade of C or better in all courses applied toward the MSEE degree.

Defined Master's Option

The defined MSEE provides options leading toward a MSEE in two years by taking two courses per semester. This program has been designed for graduate students who work full-time. Most courses listed in the defined master's are offered in the evening and will generally be scheduled after 4:30 p.m. See our webpage at http://eas.uccs.edu/ECE/ for current program options.

PhD Program in Electrical Engineering

The Department of Electrical and Computer Engineering supports a PhD program in Electrical Engineering as part of the PhD in Engineering degree. Students who are interested in research areas in electrical engineering, and would like to pursue the PhD in Engineering degree should contact the ECE Department at 719-262-3351.

Admission

Regular admission to the PhD program requires the following:

- A 3.3 grade-point-average (GPA) on all previous college work, including both graduate and undergraduate.
- The Graduate Record Examinations (GRE) may be required if the applicant falls below this GPA or is not a graduate of an ABET accredited undergraduate program in electrical engineering. The verbal reasoning and quantitative reasoning portions of the GRE are required of all foreign applicants.
- Graduates of foreign universities are required to take the TOEFL exam: A score of 550-600 on the paper-based exam, 78-80 on the internet-based exam or 213-250 on the computer-based exam is required.

Students not admitted on a regular basis may be admitted on a provisional basis depending on their over-all application file, including GPA, GRE, letters of recommendation, etc.

Students admitted on a provisional basis are often required to take remedial courses (these are specified in the letter of acceptance). Registration for such remedial courses must commence with the first semester of a student's program with at least three credits completed per semester until all remedial requirements are satisfied.

Application Deadlines

To apply, prospective students should contact the ECE Department.

Applications are reviewed on a continual basis, but need to be received by April 1 (fall admission) or October 1 (spring admission) for students who are applying for assistantships. It is recommended that international students apply at least 3 months prior to the start of the semester to allow time to request a visa. Limited fellowships and assistantships are available.

Degree Requirements
The PhD degree is awarded to students who have satisfied the requirements of duration of program, who have submitted an acceptable dissertation, and who have passed all prescribed examinations.

Requirements for students entering with a master's degree:

- Complete 24 semester hours of course work
- At least 12 semester hours must be ECE courses
- At most 6 semester hours may be independent study courses.
- All 24 semester hours must be numbered 5000 and above if ECE, or 500 and above if non-ECE.

Requirements for students entering without a master's degree:

- Must complete 48 semester hours of course work.
- At least 24 semester hours must be ECE courses.
- At most 12 semester hours may be independent study courses. All 48 semester hours must be numbered 5000 and above if ECE, or 500 and above if non-ECE.

In all cases: Cross-listed courses which are offered at the 500(0)/600(0) levels must be taken at the 600(0) level.

Requirements for all students:

- Complete 30 semester hours of dissertation research in addition to course work.
- Have an overall graduate GPA of 3.0 in order to graduate.
- Have a grade of B- or better in all courses applied toward the PhD degree.
- Pass the Preliminary Examination, the Comprehensive Examination, and the final Defense of Dissertation.

No foreign language is required.

Research Areas of ECE Department Faculty:
Dr. Carlos A. Paz de Araujo – Microelectronics

Dr. Michael D. Ciletti – Computer-Aided Design, Computer Engineering

Dr. Ramaswami Dandapani – Computer-Aided Design, Computer Engineering

Dr. T. S. Kalkur – Microelectronics, VLSI Circuit Design

Dr. Gregory L. Plett – Adaptive Signal Processing and Control

Dr. Ronald M. Sega – Electromagnetics (on leave)

Dr. Chia-Jiu (Charlie) Wang – Computer Engineering

Dr. Mark A. Wickert – Communications, Signal Processing

Dr. Rodger E. Ziemer – Communications, Signal Processing

Department of Mechanical and Aerospace Engineering

University Hall, Suite 309
(719) 262-3243 Fax: (719) 262-3042
http://mae.uccs.edu/
E-mail: mae@uccs.edu

Faculty

Professors: Michael Larson and James Stevens (Chair): ***Professor Emeritus:*** David Schmidt; ***Associate Professors:*** Peter Gorder, Ken Lauderbaugh and James Stevens (Chair); ***Assistant Professors:*** Jason Roney and Steve Tragesser; ***Instructor:*** Julie Albertson.

Programs Coordinated by the Department:

Minor in Aerospace Engineering

Bachelor of Science in Mechanical Engineering

Master of Science in Mechanical Engineering

Master of Engineering in Engineering Management

Master of Engineering in Space Operations (distance only)

Master of Engineering in Systems Engineering

Doctor of Philosophy in Engineering

Mechanical Engineering is a core discipline, encompassing mechanics, materials science, thermal science, dynamics and controls, design, and manufacturing. Career opportunities are open to mechanical engineers in industry, government, and universities, as well as in other professions including business, law, and medicine. Mechanical engineers are employed in a wide range of industries including aerospace, automotive, chemical, computing, electronics, industrial machinery, manufacturing, mining, oceanography, petroleum, pharmaceuticals, power, printing, publishing, and textiles. Mechanical engineers usually engage in research, development, design, testing, manufacturing, operations and maintenance, marketing and sales, and administration.

The undergraduate curriculum in mechanical engineering incorporates mathematics, physics and chemistry; humanities/social sciences; business; engineering science; electrical theory; measurement science; mechanical engineering core courses (computer-aided drafting, dynamics and controls, solid and fluid mechanics, thermodynamics, materials science, and heat and mass transfer); and selected technical elective courses. Many of the technical elective courses are interdisciplinary in nature and are taught in other departments and colleges to provide a balanced education on the fundamentals of the profession. These electives are designed to meet the needs of the industrial, commer-

cial, governmental, and military communities, and to serve students' professional objectives.

Undergraduate students can participate in internship and cooperative educational programs with a variety of high-tech companies along the front-range, which may include Agilent Technologies, B.F. Goodrich, Boeing, Lockheed-Martin, Hewlett-Packard, Quantum, Sturman Industries, SuperFlow Corporation, Transportation Technology Center/AAR, and TRANE.

Undergraduate students also have many opportunities to become involved in discipline-related activities outside the classroom. The MAE Department has active chapters in the American Society of Mechanical Engineers (ASME), the American Institute of Aeronautics and Astronautics (AIAA), and the Society of Automotive Engineers (SAE).

Further, currently enrolled undergraduate students with exceptional academic records may obtain guaranteed early enrollment in mechanical and aerospace engineering graduate programs.

Bachelor of Science – Mechanical Engineering

The Department of Mechanical and Aerospace Engineering has established the following set of program educational objectives for the Bachelor of Science in Mechanical Engineering.

Objectives

- Graduates will be able to use mechanical engineering principles, proficiencies, and technical information to pursue graduate school or engineering careers, including but not limited to design, development, project management and technical sales.
- Graduates will be equipped to pursue continued lifelong growth and development in mechanical engineering, including learning and applying new engineering processes, tools, and technologies.
- Graduates will be able to contribute to the state-of-the-art in engineering design, research and problem solving, including consideration of professional responsibilities.

Outcomes

Program outcomes describe what students are expected to know and be able to do by the time of graduation. These are as follows:

- An ability to apply knowledge of mathematics, science, and engineering
- An ability to design and conduct experiments, as well as to analyze and interpret data
- An ability to design a system, component, or process to meet desired needs within realistic constraints, such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multi-disciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The acquisition of the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- A recognition of the need for, and an ability to engage in life-long learning
- A knowledge of contemporary issues
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
- A knowledge of chemistry and physics
- An ability to apply advanced mathematics
- A familiarity with statistics and linear algebra
- An ability to work professionally in both the thermal and mechanical systems including the design and realization of such systems.

These outcomes are regularly reviewed by the constituents of the department's programs, including industrial representatives, students in the program, and the faculty of the department.

These outcomes are used to focus the undergraduate degree program and assure the best possible education to our students.

Degree Requirements

The Bachelor of Science degree in Mechanical Engineering requires the following:

- completion of at least 129 hours
- completion of an Exit Survey and Interview
- a minimum 2.0 average in all CU courses taken

Course Requirements

Communication Skills (6 semester hours)

ENGL 131 Rhetoric & Writing I 3
ENGL 309 Technical Writing and Presentation 3

Humanities and Social Sciences (9 semester hours)

Choose three courses, one must be 200-level or greater

Courses must be socially and culturally broadening. Acceptable subject matter: Literature, Language, History, Economics, Music, Psychology, Sociology, Political Science, Visual or Performing Arts, Ethnic Studies, Communications, Film Studies, Fine Art History, Music Appreciation, Philosophy, Women's Studies, Professional Writing, or Anthropology

Basic Science (13 semester hours)

CHEM 103 General Chemistry 5

PES 111 General Physics I 4
PES 112 General Physics II 4

Business (6 semester hours)
Complete two courses from the following list
ACCT 201 Intro to Financial Accounting. 3
BUAD 100 Survey of Contemp Bus Issues and Concerns 3
ORMG 330 Intro to Management and Organization . . . 3
MKTG 300 Principles of Marketing 3
MAE 3342 Engineering Economy 3

Mathematics (21 semester hours)
MATH 135, 136, 235 Calculus I, II, III 12
MATH 313 Linear Algebra 3
MATH 340 Intro to Differential Equations 3
MATH 381 or ECE 3610 Statistics 3

Basic Engineering and Computer Background (3 semester hours)
CS 107 Introduction to Programming in Visual Basic or CS 115 Principles of Computer Science 3

Mechanical Engineering Core Courses (59 semester hours)
MAE 1503 Introduction to Engineering Design 2
MAE 1502 Principals of Engineering 3
MAE 2055 Mechetronics I 3
MAE 2101 Statics 3
MAE 2102 Dynamics 3
MAE 2301 Engineering Thermodynamics 3
CHEM 301 Materials Science (CHEM 106 prereq. waived) 3
MAE 3005 Engineering Measurement Lab 3
MAE 3010 Mechanical Engineering Lab 2
MAE 3055 Mechetronics II 3
MAE 3130 Fluid Mechanics 3
MAE 3201 Strength of Materials 3
MAE 3302 Thermodynamics II 3
MAE 3310 Heat and Mass Transfer 3
MAE 3401 Modeling and Simulation of Dynamic Systems 3
MAE 3501 Machine Design 3
MAE 4120 Kinematics 3
MAE 4402 Intermediate Dynamics 3
MAE 4421 Feedback Control 3
MAE 4510 Engineering Design I 1
Choose one of the two below
MAE 4511 Engineering Device Design or
MAE 4512 Engineering Systems Design 3

Technical Electives (12 semester hours)
At least 12 hours of technical courses, all 4 must be 300/3000 or above classes, with at least 2 being 400/4000 and above classes.

Select from the following Departments: Computer Science, Electrical Engineering, Mathematics, Mechanical and Aerospace Engineering or Physics.

Additional basic science classes may be allowed with a petition and if it is a prerequisite for an upper level Technical Elective classes, i.e. PES 213 to take upper level Physics classes.

Sample Schedule

Freshman Year

Fall Semester (17 semester hours)
MATH 135 Calculus I 4
ENGL 131 English Composition I 3
PES 111 General Physics I 4
MAE 1502 Principles of Engineering 3
CS 107 Introduction to Programming in Visual Basic . . 3

Spring Semester (16 semester hours)
MATH 136. Calculus II 4
PES 112. General Physics II 4
MAE 1503 Introduction to Engineering 2
Social Sciences/Humanities Electives 6

Sophomore Year

Fall Semester (18 semester hours)
MAE 2101 Statics 3
MATH 313 Introduction to Linear Algebra 3
MATH 235 Calculus III 4
ENGL 309 Tech Writing & Presentation 3
CHEM 103 General Chemistry I 5

Spring Semester (15 semester hours)
MAE 2102 Dynamics 3
MATH 340 Intro to Diff. Egns 3
CHEM 301 Materials Science 3
MAE 2055 Mechetronics I 3
MAE 2301 Engineering Thermodynamics 3

Junior Year

Fall Semester (15 semester hours)
MAE 3055 Mechetronics II 3
MAE 3302 Thermodynamics II 3
ECE 3610 or MATH 381. Engineering Probability and Statistics 3
MAE 3401 Modeling and Simulation 3
MAE 3201 Strength of Materials 3

Spring Semester (15 semester hours)
MAE 3130 Fluid Mechanics 3
MAE 3310 Heat and Mass Transfer 3
MAE 3005 Engineering Measurement Lab 3
MAE 3501 Machine Design 3
Technical Elective 3

Senior Year

Fall Semester (18 semester hours)
MAE 3010 Mechanical Engineering Lab 2
MAE 4402 Intermediate Dynamics 3
MAE 4510 Engineering Design I 1
MAE 4120 Kinematics 3
MAE 4421 Feedback Control 3

Business Elective 3
Technical Elective 3

Spring Semester (15 semester hours)
SS/Humanities Elective 3
Business Elective 3
2 Technical Electives 6
MAE 4511 Engineering Device Design II 3
Total Hours 129

Minor in Aerospace Engineering

General Requirements
The minor in Aerospace Engineering requires the following:

- at least 22 credit hours of course work
- a grade of C or better on each course.

The student will be responsible for any prerequisites to required courses. Only 6 hours of transfer work may be applied to the minor.

Course Requirements
Minor courses are as follows:
MAE 4135 Aerodynamics and MAE 4410 Astrodynamics
MAE 3401 Modeling and Simulation of Dynamic Systems
MAE 4420 Feedback Control of Aerospace & Mechanical Systems
MAE 4415 Flight Dynamics
MAE 4510 Engineering Design I with focus on Aerospace Vehicle
MAE 4512 Engineering Design II with focus on Aerospace Vehicle

Select one class from the following list:
MAE 4316 Propulsion
MAE 4318 Airbreathing Propulsion
MAE 4425 Space Environment
MAE 4455 Flight Mechanics
MAE 4460 GPS Principals and Applications

Master of Science — Mechanical Engineering (MSME)

The Department of Mechanical and Aerospace Engineering offers a program leading to the Master of Science in Mechanical Engineering (MSME). This research-oriented academic degree is appropriate either as a terminal degree or in preparation for doctoral studies in mechanical and aerospace engineering. Courses at the graduate level are often offered in the late afternoon or evening to enable students from local industry to complete their studies.

The graduate curriculum includes:
Aerospace Engineering

Automation, Controls and Robotics Dynamic Systems and Control Manufacturing

Remote Sensing

Space Systems

Thermal Systems

Fluid Mechanics

A cooperative interdisciplinary program in Bioengineering

Interdisciplinary research programs are available to graduate students. Graduate students can participate in ongoing research programs through independent study projects or as research assistants on sponsored research projects.

The MSME program consists of coursework and research in advanced mechanical engineering, allowing emphasis in one or more of the following areas listed above.

See the ***Graduate Admission Requirements below.***

Learning Objectives - MSME

- Prepare the student to perform independent research in their field of specialization
- Provide students with an understanding of the advanced engineering tools and concepts that apply to their field of specialization, with particular emphasis on the mathematical development of those tools
- Prepare the student to pursue doctoral studies in mechanical/aerospace engineering
- Develop student's communication skills and professionalism

Degree Requirements
The MSME degree requires the following:

- Each MSME student may complete the thesis option (Plan I)
- Thirty semester hours of graduate study, with a minimum of six hours of coursework in graduate-level pure or applied mathematics (Plan II)
- thirty semester hours of graduate study, with a minimum of six hours of coursework in graduate-level pure or applied mathematics.
- Each MSME student will complete the thesis option (Plan I)
- During the first semester of enrollment, each student will prepare a Plan of Study, which must be approved by the student's graduate advisor and the MAE Graduate Affairs Committee. The plan will specify the student's selected area of interest and list courses related to that area. Any subsequent changes to the Plan of Study must also be approved by the student's advisor and the MAE Graduate Affairs Committee.
- The student and advisor will select an advisory committee, which will provide assistance in formulating and executing the student's graduate program. The committee shall consist of at least three full-time faculty members selected from the College of Engineering and Applied Science at UCCS; the advisor must be a tenured or tenure-track faculty member of the Department of Mechanical and Aerospace Engineering. Eligibility to serve on the graduate committee shall be determined by the policies and procedures of the Graduate School.

Plan I (Thesis Option)
At least twenty-four hours of graduate coursework and up to six hours of thesis/ research credit is necessary to satisfy the thirty credit hour requirement. The thesis/research credit will be provided for research and preparation of the student's thesis, and defense of the thesis is required for completion of the program. The thesis defense will be based on the thesis and related materials and will be open to the public. Any student who does not pass the thesis defense may attempt the examination a second time. The second failure of the defense will result in dismissal from the MSME program.

Please see the course descriptions for a complete list of graduate courses in mechanical and aerospace engineering.

Master of Engineering: Program Options – Engineering Management or Space Operations
The Master of Engineering degree is a practice-based graduate degree. The Master of Engineering program currently offers specialty options in Engineering Management and Space Operations (distance only). In each option, a series of required courses are specified, leading to a capstone course. The program provides an opportunity to combine electives from a variety of fields including business, electrical engineering, computer science, mathematics, and aerospace engineering.

Learning Objectives – Engineering, ME options of Space Operations, Engineering Management, and Systems Engineering

- Prepare the student to perform independent research in their field of specialization
- Prepare the student to become a national and international expert in their chosen field of specialization
- Provide motivation and capability to continue life-long learning experience
- Prepare the student to pursue doctoral studies in mechanical/aerospace engineering
- Prepare the student for post-graduate education in other fields and other forms of continuing education
- Educate students such that they will, by their professional example and engineering knowledge, be a credit to their profession and reflect favorably on UCCS

Graduate Admission Requirements
The minimum requirements for regular admission into the MSME or Master of Engineering programs are as follows:

- Baccalaureate degree (BS) in engineering, applied mathematics, or physics from an accredited institution. Currently enrolled undergraduate engineering students with exceptional academic records may qualify for guaranteed early admission to the MSME graduate program – please contact the MAE department for more information. Students wishing to pursue a Master or Engineering in Engineering Management should have a baccalaureate degree consistent with the desired specialization area.
- An undergraduate grade point average of 3.0 or higher on a scale of 4.0 in all college level academic work attempted.
- Evidence of mathematical maturity equivalent to the completion of the following university-level coursework:
- Three semesters of calculus
- At least one semester beyond calculus (advanced calculus or ordinary differential equations)
- Linear algebra
- Probability and statistics
- Knowledge beyond the introductory level in mechanical engineering, either through prior undergraduate coursework and/or professional experience.
- Official transcripts from all academic institutions attended, including UCCS itself if applicable.
- Three letters of recommendation, mailed to the MAE Department Office.

Applicants who do not meet these requirements for regular admission may be admitted on a provisional basis subject to the recommendations of the MAE graduate committee.

For more information about these programs, contact the Department of Mechanical and Aerospace Engineering, Graduate Programs, University Hall, Room 309, or call (719) 262-3243. Send email to mae@uccs.edu or see our webpage at uccs.edu.

Application Forms
Application materials can be obtained from the Department of Mechanical and Aerospace Engineering (MAE) at the address below or by accessing the website http://mae.uccs.edu. Students are encouraged to submit program application materials promptly.

Also required are:

- Two copies of official transcripts
- Three references (with at least one from a former instructor)

Transfer Credits
Course credit between the CU-Boulder, CU-Denver, and UCCS courses in mechanical or aerospace engineering will be fully transferable. A table of University of Colorado System course equivalencies is contained in the CU-Boulder Course Catalog.

Up to nine hours of graduate work may be approved for transfer from other established graduate programs, subject to the following conditions:

- The course has not been used for any other degree.
- The grade earned for each course is B (3.0) or better.
- The course is equivalent in level and content to the course for which it is being substituted.

Master of Engineering Degree Requirements

General Requirements
The curriculum for the degree will total thirty semester hours of graduate course work. A graduate advisor should be selected in the first semester of the program. The course work options are predefined, consisting both of required "core" courses and additional electives to be selected from the list approved for that specialization. Any deviations from the predefined curricula (including transfer credit) must be approved by a graduate faculty advisor in the MAE Department. Course work must be completed with a 3.0 GPA or better, and all course work applied to the program (including any transfer credit) must have been completed no earlier than 6 years prior to degree completion.

Engineering Management Option
The primary objective of this degree program is to integrate knowledge and skills from engineering and business disciplines to allow students to develop effective responses to rapidly changing technological and business environments. The program recognizes that many engineers evolve into management/ supervisory roles and require a blend of technical advanced engineering and business/management education to succeed in today's technical marketplace.

The program prepares engineers for effective participation in management of technology, management of technology-based organizations, and management of technological change. This focus is achieved through a careful balance of graduate course work in business, management, and a technical area of the student's work/academic interests.

Program Prerequisites

- An accredited BS degree in an engineering or science discipline **OR**
- Experience in a commercial, civil, or government engineering/science career field.

Program Requirements
The degree program consists of 30 semester hours divided between core courses (15 hours) and a specialization area (15 hours). The required core courses provide the basics of effective business/ management education necessary for engineers migrating into management or supervisory roles and the conceptual underpinning of the systems engineering process. The specialization areas offer a student the opportunities for graduate course work in a technical area of his/her choosing. Degree requirements also include a written, investigative report that reflects course material from both required courses and a specialization area.

Core Courses (15 required hours)
Student must take the following three courses:
BCOM 550. Professional Business Communication

BUAD 560. Business, Government & Society

MAE 5093. Systems Engineering

Student must select any two courses from the following:

ACCT 600. Contemporary Issues in Accounting

MGMT 620. Managing Organization Development and Change

INFS 600. Information Systems

MKTG 600. Marketing Strategy

OPTM 600. Operations: Competing through Capabilities

Specialization Areas (15 elective hours)
Select five courses from any one-specialization area. The courses should be consistent with the student's academic background and work environment. An academic advisor must approve the course selections.
Computer Science/Software Systems

Electrical and Computer Engineering

Manufacturing Engineering

Mathematics

Mechanical Engineering

Space Systems

Space Operations Option (Distance Only)
The Master of Engineering degree with an option in Space Operations is ideally suited for working professionals involved in civil, military, or commercial space operations, payload and mission support, space systems analysis, space systems requirements and design specifications. The Master of Engineering in Space Operations is administered and taught as a distance program.

Degree program

The degree program consists of 10 courses including a written, creative, investigative report.

Program Prerequisites

- Two semesters of calculus-based physics
- A programming course in a higher order language; linear systems theory; engineering probability; linear algebra; and differential equations are required for admission to the program.

PhD in Engineering

The Department of Mechanical and Aerospace Engineering supports a PhD program in Mechanical and Aerospace Engineering as part of the PhD in Engineering degree. Only students with a Master's degree will be accepted into the PhD program. Students who are interested in research areas in mechanical and aerospace engineering, and would like to pursue the PhD in Engineering degree should contact the Department at (719) 262-3243.

Degree Requirements

The PhD degree is awarded to students who have satisfied the requirements of duration of program, who have submitted an acceptable dissertation, and who have passed all prescribed examinations.

Engineering and Applied Science

College of Letters, Arts and Sciences

Tom Christensen, Dean
Columbine Hall, Room 2025
Telephone: (719) 262-4550
Fax: (719) 262-4200
web.uccs.edu/lasdean/

The College of Letters, Arts and Sciences at UCCS, established in 1972, is a community of teaching scholars whose mission is to advance an understanding of the human condition and the natural world and communicate this understanding to the people of Colorado and the world at large.

The College of Letters, Arts and Sciences provides breadth of instruction for all students of the UCCS campus, including those in the professional schools and colleges. This breadth exposes all students to the challenge, excitement and demands of clear self-expression, analysis, reasoning, comparison, experimentation, and awareness of alternative perspectives. The College also provides depth in specific academic disciplines for majors within the college. This specialization is important not only for skills, perspectives, and knowledge gained, but also as the key to success in subsequent education and careers.

The College offers Bachelor's degrees in a full range of traditional liberal arts majors and minors, selected Master's graduate programs, and a PhD in psychology. We also offer pre-professional programs, a certificate program in gerontology, and cooperative degree options (with the College of Education)for students seeking licensure in elementary teaching, secondary teaching or special education.

Mission

It is the mission of the College of Letters, Arts and Sciences to:

- Provide collaborative programs that enrich the community
- Promote the creation of a vibrant and creative cultural life
- Strengthen and sustain a productive and responsible economic sector
- Facilitate the solution of community and regional problems
- Increase the safety, health and welfare of individuals and groups
- Advance an understanding of the human condition and the natural world
- Sustain scientific and technological innovation
- Enhance the understanding and practice of civic duty and responsibility

Vision

The College of Letters, Arts and Sciences affirms and accepts the ideal purposes and traditional goals of all great universities: the creation, interpretation, dissemination and application of knowledge. The College strives to maintain these goals while formulating and forging innovative and creative programs.

Advising

Student Success Center will provide students with information on college requirements, course selections, study options, summary sheets of major requirements, and senior audit. Students can walk in or make an appointment at Main Hall, second floor, or by calling (719) 262-3260

Individual Department Chairs & Departmental Faculty are responsible for advising students on the requirements for their majors. Contact information is provided within each department information.

Programs of Study *(see chart next page)*

Pre-professional Programs of two to four years which may be completed at UCCS are Pre-Dental Hygiene, Pre-Dentistry, Pre-Education, Pre-Law, Pre-Medicine, Pre-Nursing, Pre-Pharmacy, Pre-Physical Therapy, Pre-Physician Assistant, Pre-Veterinary. For more information see pp. 175-178. Pre-professional programs are a group of courses which meet specified professional school requirements, but by themselves do not meet degree requirements for a major.

Extended Studies The Extended Studies Program for the College of Letters, Arts and Sciences (LAS/ES) provides a variety of accessible educational opportunities in traditional and nontraditional formats with a focus on career preparation and advancement, enhancement of personal knowledge and experience, and the acquisition of additional university credit or Continuing Education Units (CEUs) for licensure and certification purposes. Most LAS/ES credit classes are transferable to UCCS degree programs.

LAS/ES serves as an educational outreach arm to the community, with on-campus credit courses, professional test preparation courses (including LSAT and GRE), video and cable credit courses, online credit courses, certificate programs and individualized study programs. Students benefit from outstanding instruction and the experience of participating in a university environment, whatever their educational background or experience.

LAS/ES is a self-funded program and part of the Colorado Statewide Extended Campus. Contact by phone at (719) 262-4071 or by email at lases@uccs.edu. Additional program information and a list of current courses may be found at http:// www.uccs.edu/lases/.

Programs of Study

Department	Minor	BA	BS	MA	MS	MSc	PhD*
Anthropology	Minor	BA					
Art History	Minor	VAPA-BA					
Biology		BA				MSc	
Chemistry	Minor	BA	BS			MSc	
Communication	Minor	BA		MA			
Distributed Studies**		BA					
Economics	Minor	BA					
Energy Science	Minor						
English	Minor	BA					
Ethnic Studies	Minor						
Film Studies	Minor	VAPA-BA					
French	Minor						
Gallery Practice	Minor	VAPA-BA					
Geography and Environmental Studies		BA		MA (applied Geo.)			
German	Minor						
Gerontology	Minor						
History	Minor	BA		MA			
Leadership Studies	Minor						
Mathematics as a Liberal Art	Minor						
Mathematics	Minor	BA	BS		MS (applied Math)	MSc	
Military Science	Minor						
Philosophy	Minor	BA					
Physics	Minor		BS			MSc	
Political Science	Minor	BA					
Pre-Law	Minor						
Professional Writing	Minor						
Psychology	Minor	BA		MA			PhD*
Sociology	Minor	BA		MA			
Spanish	Minor	BA					
Sustainable Development	Minor						
Visual and Performing Arts		BA					
Women's Studies	Minor						

*PhD in Clinical Psychology with a curricular emphasis in Geropsychology
**Distributed Studies majors include: Business Economics, Justice Studies and Public Administration.

LAS Special Study Programs

Freshman Seminar

Freshman Seminar (I D 101) at UCCS helps prepare entering students for an exciting and successful college experience. I D 101 is an innovative, three credit, multi-disciplinary course that helps students succeed in college by refining their speaking, writing, and technology skills; building relationships with faculty and other students; and integrating into academic life. Students may elect one of 14 compelling topics to pursue in ID 101, including "The Mating Game," "Trial and Error," "Driven," " Food for Thought," "Unreality," "Life and Death," "Crime and Punishment," "Be Your Own Boss," "Head of the Class," and "ColoradoLiving.com." (Topics may rotate.) All entering freshmen are encouraged to enroll in freshman seminar. For more information, please call Dr. Constance Staley, Program Director, at (719) 262-4123 or the Student Success Center at (719) 262-3260.

Transition Seminar (for transfer students)
ID 301 is specifically designed for new transfer students. While focusing on a critical topic, the course helps students integrate into the UCCS community, polish academic skills through project-based learning, and cultivate technology-based research competence. ID101 and ID 301 students may continue to work toward a Certificate in Academic and Career Professionalism. See the CAP program website at web.uccs.edu/cap/cap.htm for more information.

Academic Fitness
ID 111 is a one-credit course required for second semester freshmen on academic probation, but also open to other students who wish to refine their academic skills and improve their GPAs. Students will meet with an academic coach on a weekly basis.

Study Abroad Programs
Opportunities for study abroad are offered for selected students in the college, usually in formal programs in foreign universities under the direction of faculty members from this university or institutions cooperating with the University of Colorado. Normally, these programs accept students for the junior year. They carry full credit toward graduation from the University of Colorado. Inquiries may be addressed to the university's Language Technology Center on the second floor of Dwire Hall.

Research Centers, Programs, and Facilities

Center for Colorado Policy Studies

The Center for Colorado Policy Studies, founded in 1999, encourages faculty and students to apply economic analysis to questions such as the following:

- Is growth paying for itself in Colorado?
- Does tax policy affect our ability to practice "smart growth"?
- How do communities use indicators to measure quality of life and sustainability?
- Do Colorado children receive equal funding in their schools?
- Are there better ways to deal with our local water shortage?
- How has TABOR affected our ability to fund needed services?

Publications on these and other questions are available at http://web.uccs.edu/ccps.

The Center also brings together research faculty from across Colorado with state legislators, county commissioners and city council members at the Colorado's Future conferences. For notification of future conferences, community meetings and publications, contact Professor Daphne Greenwood in Columbine 1059 at (719) 262-4031 or dgreenwo@uccs.edu.

Center for Economic Education

This Center, established in 1978, is sponsored by and affiliated with the National Council on Economic Education (New York City) and the statewide Colorado Council on Economic Education (Denver).

The Center engages in programs and activities designed to raise the general level of economic understanding, with special emphasis given to K–12 school teachers and school districts in Colorado, including international economics study tour travel opportunities for teachers. The Center also conducts additional economic education programs that involve the community.

The National Council on Economic Education is an independent, nonprofit, nonpartisan, educational organization incorporated in 1949 to encourage, improve, coordinate and service the economic education efforts in the U.S. and many other countries around the world. There are approximately 47 state councils and 250 Centers for Economic Education in the U.S.

The Center is located in Columbine Hall Room 1055. For more information, contact (719) 262-4033 or jbrock@uccs.edu.

Center for the Study of Government and the Individual

The Center for the Study of Government and the Individual was established in 2000. Its purpose is two-fold:

- to provide a vehicle for the candid, open, diverse and multi-faceted exploration of all the issues in this topic area in all of their dimensions
- to stimulate the confrontation of perspectives in regard to the role of government in American social and economic systems.

The general public and any of the faculty and students of the schools and colleges at UCCS interested in research and teaching activities related to government and the individual may participate in its activities.

Dr. James A. Null is the Executive Director and is administratively responsible for the oversight of the Center. Among its activities are the following:

- Public Forums – designed to bring the academic and public community together
- Seminars – by specialists in the subject areas
- Publications – of the proceedings of public forums, papers, books
- Research – funded to provide in-depth analysis of Center's areas of interest
- Faculty Fellows – participate in the Center Roundtable, act as editors for publications, serve as mentors to students and take on special roles in the Center's program development
- Funded development courses – focused on the role of government and the individual
- Student Fellows – attached to the Center who will receive scholarships; will be in a field relevant to the

topic of the Center; and will work with faculty mentor and participate in Center activities

- Student Interns – will work with faculty mentors on projects in the community directly related to the Center

The Matrix: Center for the Advancement of Social Equity and Inclusion

The mission of the Matrix Center is to foster an intellectual climate that supports inclusion and collaboration among faculty, students, and the community.

The Matrix advances research, curriculum, and faculty development by examining the intersections of privilege and oppression and the dynamics of oppression and privilege in the United States and around the globe. Our central focus is on the relationships among gender, race/ethnicity, and sexuality as they interact with each other and with other dimensions of inequality. Our aim is to promote solutions to inequality.

The Matrix houses and collaborates with the Ethnic Studies Program and the Women's Studies Program, which both offer minors. The Ethnic Studies and Women's Studies Programs prepare students to enter a diverse society and workplace. Diversity is central to the mission of the University of Colorado system and the University of Colorado at Colorado Springs. The Matrix Center affirms the importance of understanding our diverse experiences, traditions, and heritages.

The Matrix sponsors curricular transformation projects across the campus, including the Knapsack Institute: Transforming the Curriculum. The Institute supports faculty at UCCS as well as across the nation as they create or revise courses to integrate subject matter pertaining to race/ethnicity, gender, and social inequality. The Center also promotes the development of a more inclusive pedagogy by offering brownbag workshops for faculty throughout the school year.

The Center sponsors a range of extra-curricular programming, including the White Privilege Conference, workshops, a film series, visiting speakers, and the Rosa Parks and Cesar Chavez Student Scholarship Competitions. The Center encourages community outreach programming and has a community Advisory Board.

The Matrix Co-Directors are Abby Ferber and Andrea Herrera.

Gallery of Contemporary Art

The Gallery of Contemporary Art, located in the Science Building on the campus of UCCS, was created in 1981 as a service to the university and the Pikes Peak region. The mission of the Gallery of Contemporary Art is to provide significant art exhibitions and related programs to the university community and state populace. Gallery exhibitions and programs are offered both as a community service and as a resource to university classes.

The Gallery displays approximately six exhibitions a year that contain works by artists of regional, national and international reputation. Gallery programming includes lectures, workshops, films, and tours for both children and adults. The gallery is also available on a rental basis for community and campus events.

A nonprofit organization, the Gallery receives its funding through the university, memberships, corporate and private donations, and state and federal grants. Volunteers and students participate in gallery activities as docents and as members of the Gallery of Contemporary Art Advisory Council.

Gallery practice curricula consist of two consecutive three credit courses (GM 404 and 405) in museum studies and gallery practice; internships are available by special arrangement, leading toward a gallery practice minor.

For further information contact the Gallery: UCCS, P.O. Box 7150, Colorado Springs, CO 80933-7150; (719) 262-3567.

Gerontology Center

Older adults comprise a growing segment of the population, and estimates are that the percentage of older adults will rise to 18 to 20 percent by the year 2020. Increasing national awareness of this trend is changing the scope of social planning and policy-making. Despite the public's increased awareness of the aging of our population, much myth and mystery still surround the aging process.

The Gerontology Center (formerly Center on Aging) has a three-fold purpose:

- To foster research in gerontology and about the aging process
- To provide students an opportunity to study the processes of aging and the problems of the aged
- To be a community resource for dealing with social policy issues and programs for the aged.

Students may earn a minor or certificate in gerontology, or take courses as a way of understanding both their own future and that of an aging society. The study of Gerontology is also a way of preparing for careers in working for or with the elderly. Students gain an understanding about aging as a process, about problems of the elderly, and about ways to address these problems in meaningful and effective ways. Studies include classroom-based instruction in a variety of academic disciplines and work in the field with the elderly.

Students will become informed about the network of social agencies providing services to older persons and will also become familiar with basic research in the field of aging. Continuing education offerings are also available through the Gerontology Center, including the Professional Advancement Certificate in Gerontology and the annual National Clinical Geropsychology conference. The Center is located in Columbine Hall, Room 4028. Telephone (719) 262-4179 or geron@uccs.edu. See website at http://web.uccs.edu/geron/ for more information.

The Heller Center for Arts & Humanities

The Heller Center for Arts & Humanities was founded in 2003 as an interdisciplinary center combining educational, research, and creative activities in the fields of anthropology, botany, environmental studies, fine arts, history, literature, philosophy, sociology, and the study of human culture. As a place where artists gathered for weekend retreats throughout the nineteen thirties, forties, and fifties, the Center preserves and extends an important part of the cultural history of Colorado Springs.

The Heller Center will, upon renovation, provide an opportunity for the university to host events for members of the community at a spectacular and secluded location three minutes from the main campus. The ranch itself—34 beautifully secluded acres, surrounded by an additional 900 acres of open space—provides an open-air studio for photography, painting, and design, as well as an outdoor laboratory for environmental studies. The ranch's facilities—including the main house, guest house, greenhouse, studios, workshops, and a foundry—will provide spaces for working artists, small meetings, classes, exhibitions and performances. The extensive hiking and biking trails provide outstanding recreational opportunities with unsurpassed views of the Pikes Peak region.

Given the nature of the facility and its historical importance, The Heller Center offers a unique venue for programs that engage significant constituencies of the Pikes Peak region. The Center provides an ideal opportunity to combine arts and humanities programming with UCCS areas of expertise in gero-psychology, bioenergetics, geographic information systems, and the health professions in community outreach programs in Colorado.

The Heller Center is designed as a self-sustaining enterprise. For further information, contact Perrin Cunningham, The Heller Center Director, at The Heller Center for Arts & Humanities, (719) 330-3463 or pcunning@uccs.edu.

Theatreworks

Theatreworks is the region's leading professional theatre. Founded in 1975, it has produced more than 200 different plays over the last 30 years, winning a Governor's Award for Excellence in the Arts in 1994. Theatreworks normally produces 6-8 productions each year, including the nationally-recognized summer Shakespeare festival.

Theatreworks productions are often directly linked to the university curriculum, and students may attend productions at the Dusty Loo Bon Vivant Theater free of charge. In addition, university students regularly participate in Theatreworks productions either backstage or in the cast and have the opportunity to work with national guest artists.

Theatreworks works directly with the academic theatre program by providing artistic and technical support and frequently mounts co-productions either in the Dusty Loo Bon Vivant or the new Osborne Studio. For further information, visit www.uccs.theatreworks.com or email Theatreworks at theatreworks@uccstheatreworks.com

LAS Undergraduate Academic Policies

Academic Advising

Students are expected to assume responsibility for planning their academic programs in accordance with college rules, policies and major requirements. Advisors in the Student Success Center can answer questions about college policies and graduation requirements, and will assist students in course selection. Students expecting to graduate within one or two semesters should schedule a senior advising appointment by calling (719) 262-3260 or by going to the Student Success Center.

Although the advisors provide summary sheets of major requirements, it is the faculty who are responsible for major advising. It is the student's responsibility to arrange such faculty consultation for questions involving major requirements and graduate school applications. Students should schedule appointments to discuss their questions well in advance of registration.

Academic Progress

Grading Policies

Students should familiarize themselves with the general information section of this *Bulletin*, as well as with the introductory pages of each semester's official Schedule of Courses, for information about the university grading system, and current procedures for registering on a pass/fail basis, for dropping and adding classes, and for withdrawing from the university.

Pass/Fail Option

Students in the College of Letters, Arts and Sciences may not use the pass/fail option for courses taken to fulfill the area requirements, the composition requirement, the quantitative and qualitative reasoning requirement, or the major requirements.

Students may take up to 15 hours of elective credit on a pass/fail basis. Transfer students may take one hour of pass/fail credit for every eight hours of credit attempted at the University of Colorado. For full-time students, maximum pass/fail hours per semester are as follows:

- Fall-6 credit hours
- Spring-6 credit hours
- Summer-3 credit hours
- Winterim-no classes may be taken for pass/fail credit.

For part-time students, no more than 50 percent of total credit hours may be taken pass/fail in a given semester. If only one course is taken in a semester, it may be taken pass/fail. The P grade is not included in the student's grade point average; the F grade is included. A pass/ fail designation may not be reversed. For further information concerning the pass/fail option, see the general information section of this *Bulletin*.

Repetition of Course
When a student takes a credit course more than once, all grades are used in determining the grade point average. However, if a student has passed the same course more than one time, the College will count that course only once when calculating the student's credit hours earned toward graduation. The only exception to this rule will be in cases where a course is designated in this *Bulletin* as "may be repeated for credit."

Latin Honors
In order to graduate with Latin honors, a student must complete a minimum of 45 semester hours on the Colorado Springs campus and achieve a cumulative grade point average of 3.5 for cum laude; 3.7 for magna cum laude; 3.9 for summa cum laude. ALL post-secondary work (including transfer work) is included in this cumulative grade point average.

President's and Dean's List Criteria
The criteria for the president's and dean's lists are as follows:

- President's list: 4.0 grade point average.
- Dean's list: 3.75- 3.99 grade point average.
- Students must be enrolled in a minimum of 12 graded hours during a regular semester (fall or spring).

The dean notifies awarded students by letter.

Academic Probation
Students who have attempted at least 12 hours at UCCS and whose University of Colorado cumulative grade point averages fall below 2.0 will be placed on academic probation. While on probation, students will be required to achieve a minimum acceptable grade point average each term (determined by the individual academic record) or be subject to academic suspension. Students placed on probation will be informed in writing concerning their academic status and the conditions of continued attendance.

A more comprehensive statement on the academic probation policy is available in the Student Success Center in Main Hall.

Scholastic Suspension
The normal suspension period in the College of Letters, Arts and Sciences is one academic year, excluding the summer semester. Students suspended for the first time will be reinstated after the normal suspension period has been served, upon reapplying for admission to the university.

Students suspended for the first time may be reinstated before the end of the normal suspension period by the following measures:

- Achieving a 2.5 grade point average on all summer, extended studies, or correspondence work attempted at the University of Colorado since suspension. Six hours minimum must be completed.
- Raising the cumulative University of Colorado grade point average to at least 2.0 by completing summer, correspondence, or extended studies coursework at the University of Colorado.
- Achieving a cumulative grade point average of at least 2.0 by attending another institution. The cumulative grade point average in this instance is the grade point average at the University of Colorado combined with coursework taken at all other institutions.
- Successfully appealing the suspension in writing to the dean.
- Being recommended for reinstatement by the coordinator of academic probation and suspension for the College of Letters, Arts and Sciences in the Student Success Center, Main Hall.

Students eligible for reinstatement before serving the normal suspension period must notify the Student Success Center. Reinstated students absent for either fall or spring semesters or who complete 12 or more hours at another institution must reapply for admission to the university.

Students suspended for the first time will be reinstated on probation and will be informed in writing of their academic status and the conditions of continued attendance. Students not meeting conditions of continued attendance will again be subject to academic suspension. Reinstatement after a second suspension requires approval of the dean of Letters, Arts and Sciences. Requests for reinstatement must be made in writing.

A more comprehensive statement on the academic suspension policy is available in the Student Success Center, Main Hall.

Committee on Academic Progress

The Committee on Academic Progress (CAP) is a review board that handles student petitions for exceptions to the academic policies and requirements of the College. The committee is made up of faculty of the college and makes recommendations to the dean. The committee evaluates, for example, petitions for exceptions to the residency requirement, acceptance of more than the maximum number of major hours, and substitution of courses fulfilling the area requirement. It also considers certain requests for reinstatement from suspension and matters of academic honesty. Petition forms may be obtained from the Student Success Center in Main Hall.

Course Credit

Correspondence Study and the Division of Extended Studies
A maximum of 30 semester hours may be taken through the Colorado Consortium for Independent Study via correspondence. Those courses indicated as CU-Boulder and CU-Denver carry resident credit.

No more than nine semester hours of regular coursework may be taken from the Division of Extended Studies and applied towards the degree. ENGL 099 (formerly ENGL 121) and courses numbered below 100 will not count

towards the required 120 hours for graduation, nor will they count in the College of Letters, Arts, and Sciences grade point average.

Electives from the UCCS professional Colleges
Students may apply a maximum of 30 credits toward the Bachelor's degree from coursework taken outside the College of Letters, Arts and Sciences. Coursework taken from the professional colleges at UCCS and transfer coursework labeled "non-LAS electives" will be included in the 30 hour maximum.

Independent Study
Students who have completed a considerable portion of their undergraduate studies with distinction may register for independent study with the approval of the appropriate department. The amount of credit to be given for an independent study project shall be arranged with the instructor.

Not more than eight hours of independent study may be credited toward the major, and not more than 16 hours toward the bachelor's degree. No student may register for more than eight hours of independent study in any one term (summer, fall, or spring).

Military Science/ROTC Credit
Students may apply a maximum of 21 semester hours of ROTC credit toward elective requirements and toward the 120 semester hour total degree requirements for the BA degree in the College of Letters, Arts and Sciences.

Special Sources of Credit
For Advanced Placement (AP), College Level Examination Program (CLEP) and International Baccalaureate (IB), see the General Information section of this *Bulletin* for placement score requirements, course equivalencies and credit hour values. See an academic advisor for information on how these exams might apply to a major.

Course Load

The minimum full-time course load is 12 hours. The normal maximum is 18 hours. If a student wishes to take more than 18 hours per semester, special permission must be obtained from the dean of the college, through the Student Success Center. These totals include all courses taken for credit at any of the university's three campuses, but do not include correspondence courses, noncredit courses, or courses taken at other institutions

To receive credit, the student must be officially registered for each course.

Students who hold or expect to hold full or part-time employment while enrolled in the college must register for course loads they can expect to complete without unusual difficulty. Recommended course loads are given below, but students must weigh their own abilities and assess the demands of each course in determining an appropriate schedule.

Employed	Enrolled Semester Hours
40 hrs. per week	6-9
30 hrs. per week	8-11
20 hrs. per week	10-13

Course Numbering

Course numbers are an approximate reflection of academic level. Freshman courses are indicated as 100-199, sophomore courses as 200-299, etc. Students are strongly urged to consult with the department prior to registration before signing up for any upper-division course (300 or 400 level) in a field in which they have not had lower-division (100 or 200 level) preparation.

Graduation Requirement

Senior Audit
Early in the first semester of the senior year or, preferably, toward the end of the junior year, each student must schedule a senior audit with the academic advisors or the college to determine status with respect to the curricular requirements.

Diploma Card
No fewer than 90 days prior to the date of commencement, seniors are required to file a diploma card with the academic advisors in the Student Success Center that gives notice of intention to complete graduation requirements. Failure to complete the diploma card in time may delay a student's graduation.

Residence Requirements

A candidate for a degree from the College of Letters, Arts, and Sciences must earn the last 30 hours in residence in the College. During these 30 hours, the student must be registered in Letters, Arts and Sciences. All 30 hours must be taken on the Colorado Springs campus. Students wishing to attend another university or college simultaneously with UCCS during the last 30 hours must have prior approval of the dean of Letters, Arts and Sciences in order to count these transfer hours as part of the last 30 hours.

LAS Undergraduate Admission

Candidates for regular admission to the College of Letters, Arts and Sciences are expected to meet the general requirements for admission to the university as described in the General Information section. The *Bulletin* that governs a student's graduation requirements is the one in effect at the time of a student's most recent admission into the college of the student's degree program.

Freshmen

Test Scores
Freshmen must rank in the upper 40 percent of their high school graduating class, must have 15 units of acceptable high school work (referred to as the Minimum Academic Preparation Standards, or MAPS), and have the following

minimum test scores: American College Test (ACT) 24 or Scholastic Aptitude Test (SAT) 1,080

High School Coursework

Freshman applicants for admission will normally be required to present the following high school units:

• English (2 units of the 4 must be composition)	4
• Foreign language (in one language)	2
• Natural science	3
• Mathematics	3
• Social science	2
• Academic electives	1
Total	**15**

Acceptable high school courses in each academic field are as follows:

English: courses in the history and appreciation of literature, composition (including all composition given as part of a basic English course), grammar, speech, and journalism are acceptable as English units.

Mathematics: courses in algebra, plane and solid geometry, trigonometry, analytic geometry, calculus, and other courses designed for college preparation and emphasizing basic concepts and principles of deductive reasoning are acceptable as mathematical units. Courses designed for other purposes (e.g., consumer mathematics, business mathematics, many courses entitled general mathematics) are not acceptable as mathematics units.

Natural Science: courses in physics, chemistry, biology, zoology, anatomy, physiology, general science, astronomy and geology are acceptable as natural science units.

Social Science: courses in American government, civics, economics, general sociology, geography, history, problems of democracy, psychology, social science and social problems are acceptable units.

Students seeking admission who do not meet the normal admission requirements may receive consideration for admission by the dean of the College of Letters, Arts and Sciences. Inquiries concerning such admissions should be made to the Office of Admissions and Records.

Community/Junior College Transfer Students

Effective for students who enter UCCS from the fall 2003 semester forward, Colorado public four-year higher education institutions will honor the transfer of an associate of science (AS) degree and the associate of arts (AA) degree earned at a Colorado community college. A student who earns an AA or AS degree at a Colorado public community college, with a C or better in each course, and completes the state guaranteed general education courses will transfer with junior standing into any arts and sciences degree program offered by a Colorado public four-year college.

The credits earned in the associate degree program will apply at minimum to 35 credit hours of lower division general education and 25 credit hours elective credit graduation requirements. This two-plus-two agreement ensures that the transfer student will be able to complete a baccalaureate degree in no more than 60 additional credit hours unless there are additional degree requirements recognized by the Colorado Commission on Higher Education.

Students who have not completed an AS or AA degree, or students who transfer from outside of Colorado, will have their transfer work evaluated on a course-by-course basis.

Transfer students from two-year institutions must also meet additional graduation requirements, such as English and reasoning skills competency testing.

Transfer and Former Students

Students who have attended another college or university are expected to meet the general requirements for admission of transfer students to the University of Colorado, as detailed in the General Information section of this *Bulletin*.

A grade of C- or better is required in any course for which credit may be granted in transfer from another institution to the university. However, grades received at another institution will not be used in computing the student's grade point average at the University of Colorado, except for the averaging of all college work attempted by the time of graduation for possible special recognition, such as graduation with distinction and Latin honors.

Transfer students who graduated from high school in 1988 and later are subject to the Minimum Academic Preparation Standards (MAPS) previously described. Transfer coursework will be applied to meet MAPS deficiencies as outlined in the college policy and in accordance with existing transfer agreements.

Former UCCS students who have attended another college or university where they have completed 12 or more semester hours must reapply as transfer students and must present a 2.0 cumulative grade point average on all college work attempted to be eligible for readmission. Once readmitted, these students must fulfill the college requirements that are in effect at the time of readmission. This policy also applies to students in the College of Letters, Arts and Sciences who transfer into another college on the UCCS campus and then transfer back into LAS to complete their undergraduate degrees.

A maximum of 72 semester hours taken at community/junior colleges and/or a maximum of 90 semester hours taken at four-year institutions may be applied toward the baccalaureate degree in the College of Letters, Arts and Sciences.

Students should consult the General Information section of this *Bulletin* for the guidelines according to which transfer credits are evaluated. Because the initial evaluation of transfer credits is completed by the Office of Admissions, transfer students are encouraged to apply early and to have their transcripts sent to the Office of Admissions as soon as possible. Academic advisors will not be able to assess transfer credit applicability to graduation requirements until the admissions evaluation is complete.

Students receive a completed evaluation of their transfer work when they attend the mandatory orientation session, prior to their first registration.

Unclassified Students

Students admitted to the university in Unclassified Student status may enroll in courses offered by the College of Letters, Arts and Sciences. Application for this status should be submitted to the Office of Admissions and Records.

A student may change from unclassified to degree status and apply appropriate coursework taken as an unclassified student toward a degree. A maximum of 12 semester hours completed as an unclassified student may apply toward a degree in the College of Letters, Arts and Sciences.

No student may change from degree status to unclassified status. Students possessing a Bachelor's degree who wish to register for classes are designated as unclassified students unless they have been accepted in the College for a second Bachelor's degree or have been admitted to a graduate program.

LAS Undergraduate Academic Requirements

General Education Requirements

The college requires all students to complete an English writing requirement, a reasoning proficiency requirement, area requirements, and cultural diversity, oral communications, and global awareness requirements. Assuming that a student does not test out of the writing and reasoning requirements, the total number of credit hours needed to complete the college general education requirements is 45.

The College of Letters, Arts, and Sciences will accept transfer courses from the community college "general education core" and substitute these credits for credits required within the 120 hours needed for the BA or BS degree in whatever manner is most advantageous to the student. The College will also accept non-core academic courses in transfer, i.e., courses that are not considered to be vocational or technical in nature.

English Composition and Writing Competency Requirements

To qualify for a bachelor's degree from the College of Letters, Arts, and Sciences, a student must complete Rhetoric and Writing course requirements and demonstrate writing competency by successfully passing the writing portfolio assessment. **There are four different ways in which students may meet these requirements, described as follows:**

1. Successfully complete ENGL 131 and 141 at UCCS and then pass the portfolio assessment.

To be admitted to ENGL 131, the student must meet one of the following requirements:

- score 19-28 on the English ACT
- score 450-640 on the English SAT
- Complete ENGL 099, Components of Writing, offered through LAS Extended Studies, or an equivalent course completed elsewhere (Credit hours do not count toward graduation.)

For placement purposes, students without ACT or SAT scores must submit a writing sample to the writing program in Columbine 1041.

To be admitted to **ENGL 141**, students must meet one of the following requirements:

- Complete ENGL 131 at UCCS
- score 29+ on the English ACT
- score 650+ on the English SAT
- score 4 on the CEEB Advanced Placement English Language and Composition Exam
- score 4 on the CEEB Advanced Placement Language and Literature Exam
- score 5 on the IB English exam
- Successfully complete a first-semester composition course (equivalent to ENGL 131) at an accredited college or university with a C- or better
- Score 67% and receive a pass on the essay portion of the CLEP Freshman College Composition with essay examination to earn credit for ENGL 131
- Score 67% on the multiple choice section and receive a pass on the essay portion of the CLEP English Composition with essay exam to earn ENGL 141 placement, without credit for ENGL 131

To demonstrate writing competency after course completion, students must pass the writing portfolio assessment administered by the writing program. Students who choose not to demonstrate competency by earning a pass on their writing portfolio may meet the competency requirement by successfully completing a 300-level, advanced composition course at UCCS with a C- or better, a course beyond those stipulated within their degree plan. The "final" composition course for each undergraduate program is listed below:

- For LAS and nursing students: ENGL 141
- For BUS students: ENGL 307 or COMM 32
- For EAS students: ENGL 307 or 309

2. Transfer equivalent coursework in written communication taken elsewhere at an accredited college or university with a C- or better and demonstrate competency by passing the writing portfolio assessment.

Students should submit their portfolios after completing their final composition course at UCCS, or upon transfer of their complete composition requirements from an accredited college or university. Students must demonstrate competency within 30 credit hours of completion or transfer of their final composition course. Students who do not pass the portfolio assessment within 30 hours of completion of their final composition course must complete an additional writing course at the 300-level, a course beyond those stipulated within their degree plan.

3. Qualify for a waiver of composition coursework through the CEEB Advanced Placement Examination and complete remaining requirement:

- Score 4 on the AP English Language and Composition to receive credit for ENGL 131, successfully complete ENGL 141 and then pass the portfolio assessment
- Score 5 on the AP English Language and Composition to receive credit for both ENGL 131 and ENGL 141 and then pass the portfolio assessment
- Score 4 on the AP English Composition and Literature to receive credit for ENGL131, successfully complete ENGL 141 and then pass the portfolio assessment
- Score 5 on the AP English Composition and Literature and then pass the portfolio assessment.

4. Qualify for a waiver of composition coursework through the International Baccalaureate higher level English exam and complete remaining requirement:

- Score 5 to receive credit for ENGL 131, successfully complete ENGL 141 and then pass the portfolio assessment
- Score 6 or 7 to receive credit for both ENGL 131 and 141 and then pass the portfolio assessment.

To take the writing portfolio assessment, contact the Writing Program in Columbine 1045, (719) 262-4038. Students who would like to take the CLEP English Composition Exam to earn credit for ENGL 131 should contact the testing office at (719) 262-3255.

Quantitative and Qualitative Reasoning Proficiency Requirement

Well-educated people should be able to think at a certain level of abstraction and to manipulate symbols. The quantitative and qualitative reasoning proficiency requirement has two principal objectives. The first is to provide students with the analytical tools used in core curriculum courses and in their major areas of study. The second is to help students acquire the reasoning skills necessary to assess adequately the problems that confront them in their daily lives.

Students completing this requirement should be able to do the following:

- construct a logical argument based on the rules of inference
- analyze and interpret numerical data
- obtain exact results when appropriate
- apply mathematical methods to solve problems in their university work and in their daily lives.

There are four ways in which students can fulfill this requirement, described as follows:

1. Pass the UCCS Qualitative and Quantitative Reasoning Exam. This exam is offered by the testing office (719) 262-3255. A $20.00 test fee must be paid in advance. Credit hours are not awarded to those who meet the requirement by passing the proficiency examination.

2. Successfully complete ID 105 Quantitative and Qualitative Reasoning Skills OR ID 200 Mathematics: A Human Endeavor OR MATH 120 Reasoning about Data.

3. Successfully complete College Algebra (MATH 104) or a mathematics course that has college algebra as a prerequisite, or score a 20 or above on the Algebra Diagnostic Exam and complete a course in statistics or a course in symbolic logic. Qualifying courses are as follows:

Statistics
ANTH 300 - Quantitative Methods in Anthropology
CHEM 417 - Analytical Chemistry I
COMM 250 - Problems in Communication – Research

Methods
ECON 381 - Economic Statistics & Quantitative Methods
GES 400 - Introduction to Probability and Statistics
MATH 310 - Statistics for the Sciences
MATH 381 - Probability Theory
PES 315 - Modern Physics Laboratory
PSC 250 - Introduction to Political Inquiry
PSY 210 - Introduction to Psychological Statistics
SOC 317 - Social Statistics

Logic Courses
PHIL 112 - Critical Thinking
PHIL 344 - Symbolic Logic
PHIL 443 - Logical Theory

4. Successfully complete MATH 301 and MATH 302.

Area Requirements: Humanities, Social Sciences, and Natural Sciences

Each prospective LAS graduate is expected to have completed 12 semester hours in each of three areas — humanities, social sciences, and natural sciences. The total requirement is 36 hours, and, with the exception of the core humanities course, can be satisfied entirely by lower division (freshman/ sophomore) courses.

Specific Limitations:
No more than two courses from any one discipline may be applied to the area requirements.

With the exception of Distributed Studies, courses in a student's primary major may not be applied to the area requirements.

Courses may not be taken pass/fail.

Humanities Courses - 12 Credit Hours:
The humanities course requirement must be satisfied in part by successful completion of one UCCS 300 level humanities courses. The remaining nine hours may be selected from the list below or may be satisfied by community college humanities courses that are equivalent or similar in content to those listed below.

Art History
A H 100 Languages of Art . . . 3
AH 280 Survey: Ancient Art . . . 3
A H 281 Survey: Medieval Art . . . 3
A H 282 Survey: Renaissance, Baroque & Rococo Art . . . 3
A H 285 Survey: American Art . . . 3
A H 286 Survey: Modern Art I . . . 3
A H 287 Survey: Modern Art II . . . 3
A H 289 Survey: Nineteenth Century . . . 3

Communication
COMM 400 Rhetorical Dimensions . . . 3

English
ENGL 150 Introduction to Literature for Non-majors . . . 3
ENGL 260 Literature: The Global Perspective . . . 3
ENGL 261 Literature: The Global Perspective II . . . 3
ENGL 290 Topics in Literature . . . 3
ENGL 332 Born in the USA: Masterpieces of American Literature . . . 3
ENGL 390 Topics in Literature . . . 3

Ethnic Studies
EST 200 Introduction to Ethnic Studies . . . 3
EST 310 Women of Color: Image & Voice . . . 3

Film Studies
FILM 100 Introduction to Film Studies . . . 3
FILM 200 Narrative Film . . . 3

History
HIST 103 The Rise of Modern Europe, 1500-1815 . . . 3
HIST 111 Asian History: Southeast Asia . . . 3
HIST 112 Asian History: The Indian Subcontinent . . . 3
HIST 113 Asian History: China . . . 3
HIST 114 Asian History: Japan . . . 3
HIST 140 Latin America to 1810 . . . 3
HIST 141 Latin America Since 1810 . . . 3
HIST 153 US: Emergence of Modern America, 1865-1920 . . . 3

Languages and Cultures
FCS 318 German & Austrian Civilization & Culture 1700-1918 . . . 3
FCS 319 20th Century German/Austrian Civilization and Culture . . . 3
FCS 324 Modern French Culture & Civilization . . . 3
FCS 369 Topics in Hispanic Film . . . 3
FCS 389 Fields Studies in Language and Culture . . . 1-6
FCS 421 Hispanic Heritage of Colorado . . . 3
FR 324 Modern French Culture and Civilization: France from 1700-1917 . . . 3

Music
MUS 100 Introduction to Music . . . 3
MUS 205 Jazz History . . . 3

Philosophy
PHIL 100 Introduction To Philosophy . . . 3
PHIL 102 Ethics . . . 3
PHIL 105 Philosophy and Religion . . . 3
PHIL 112 Critical Thinking . . . 3
PHIL 309 Philosophies of Asia . . . 3
PHIL 310 Comparative Religions . . . 3

Theatre
THTR 100 Introduction to Theatre . . . 3
THTR 320 History of Theatre I . . . 3
THTR 321 History of Theatre II . . . 3

Visual Arts
V A 101 Beginning Studio - 2D . . . 3
V A 102 Beginning Studio - 3D . . . 3

Women's Studies
WMST 200 Introduction to Women's Studies . . . 3
WMST 310 Women of Color: Image & Voice . . . 3

Social Science Courses – 12 Credit Hours:
The 12-hour social science area requirement may be met by the lower and upper division courses that are listed below. Students who transfer to UCCS from community colleges may fulfill this area requirement by substituting courses that are equivalent or similar in content to those listed below.

Anthropology
ANTH 104 Introduction To Cultural Anthropology . . . 3
ANTH 220 Survey of Prehistory . . . 4
ANTH 240 Survey of Cultural Anthropology . . . 3
ANTH 280 The Nature of Language . . . 3
ANTH 304 Women Around the World . . . 3
ANTH 307 Darwinism . . . 3
ANTH 326 Agricultural Origins . . . 3
ANTH 327 Historical Archaeology . . . 3

Communication
COMM 102 Interpersonal Communication . . . 3
COMM 215 Male/Female Communication . . . 3
COMM 328 Intercultural Communication . . . 3
COMM 344 Leadership Communication . . . 3
COMM 420 Persuasion . . . 3
COMM 422 Creative Communication . . . 3
COMM 425 Advanced Interpersonal Communication: Conflict Management . . . 3

Economics
ECON 100 The Economics of Social Issues . . . 3
ECON 101 Introduction To Microeconomics . . . 3
ECON 202 Introduction To Macroeconomics . . . 3
ECON 315 Great Books of Economics . . . 3
ECON 371 Comparative Economic Systems . . . 3

Ethnic Studies
EST 201 Introduction to Race & Gender . . . 3
EST 300 Race & Gender at the Movies . . . 3

Geography and Environmental Studies
GES 198 World Regional Geography . . . 4
GES 199 Introduction To Human Geography . . . 4

Gerontology
GRNT 300 Introduction to Gerontology . . . 3

Philosophy
PHIL 320 Politics and the Law 3
PHIL 426 Philosophy of Law 3

Political Science
P SC 101 Introduction To Global Politics 3
P SC 110 The American Political System 3
P SC 210 Politics and Policy in State & Local Government 3
P SC 330 The Bureaucrats 3
P SC 421 International Politics 3
P SC 447 Introduction To Constitutional Law 3

Psychology
PSY 100 General Psychology 4

Sociology
SOC 111 Introduction To Sociology 4
SOC 212 Introduction To Social Research 4
SOC 220 Introduction To Racial & Ethnic Groups 3
SOC 222 Communities in a Global Environment 3
SOC 250 Social Problems 3
SOC 361 Gender & Society 3

Women's Studies
WMST 201 Introduction to Race & Gender 3
WMST 225 Images of Women in Society 3
WMST 300 Race & Gender at the Movies 3
WMST 304 Women Around the World 3
WMST 361 Gender & Social Behavior 3

Natural Science Courses - 12 Credit Hours:
The 12-hour natural science area requirement must include at least one laboratory science course and may be satisfied by the lower and upper division courses listed below. (Laboratory science courses are indicated by an asterisk.) Community college students transferring to UCCS may fulfill this requirement by substituting courses that are equivalent or similar in content to those listed below.

Anthropology
ANTH 103 Introduction To Human Origins 3
ANTH 230 Survey of Biological Anthropology 3
ANTH 332 Primatology 3
ANTH 334 Human Evolution 3
ANTH 337 Human Biology & Ecology 3

Biology
*BIOL 100 Biology in the Modern World; Lab (BIOL 106) 4
BIOL 105 Personal Nutrition 3
BIOL 114 Introduction To Health and Exercise Science . 3
*BIOL 151 Environmental Science I; Lab (BIOL 153) . . . 4

Chemistry
*CHEM 100 Chemistry in the Modern World; Lab (CHEM 110) 4
*CHEM 101 Introduction To Chemistry 4
*CHEM 102 Introduction to Organic and Biochemistry . . 4
*CHEM 103 General Chemistry I 5
*CHEM 106 General Chemistry II 5
CHEM 121 Introduction To Physical Science; Lab (CHEM 124-1) 4
CHEM 151 Environmental Science; Lab (CHEM 153-1) 4

Energy Science
ENSC 150 Introduction To Energy Science I 3
ENSC 151 Introduction To Energy Science II 3
*ENSC 160 Solar Energy & Lab (ENSC 162-1) 4

Geography and Environmental Studies
GES 100 Environmental Systems: Climate, Vegetation and Soils 4
101 Environmental Systems: Landforms 4
*GES 105 Map & Compass 4
GES 320 Practical Meteorology 4
GES 325 Geography of Climate Change 3

Geology
*GEOL 101 Physical Geology 4
GEOL 102 Historical Geology 4
*GEOL 153 Geological Development in Colorado and the West 4
GEOL 317 Geology of Our National Parks 3
GEOL 370 Environmental Geology 4
GEOL 466 Field Study in Geology 1-3

Interdepartmental studies
ID 205 Beyond the Finite 3

Physics and Energy Science
*PHYS 100 Physics in Everyday Life; Lab (PES 114) 4
PHYS 104 Physics in Science Fiction 3
*PHYS 105 General Astronomy I & Lab (PES 109-1) . . . 4
*PHYS 106 General Astronomy II & Lab (PES 110-1) . . . 4
PHYS 108 Science on the Nanoscale 3
PHYS 131 Science and Women 3
PHYS 171 Honors Physics I 4
PHYS 172 Honors Physics II 4

Psychology
PSY 327 Biopsychology 3

Cultural Diversity Requirement
While fulfilling their general education requirements, LAS students are required to take a course which also increases their awareness of cultural diversity. Approved courses for the cultural diversity requirement are as follows:
ANTH 325 Prehistory & History of Native American Cultures of SW
ANTH 342 North American Indians
COMM 328 Intercultural Communication
ENGL 332 Born in the USA: Masterpieces of American Literature
EST 200 Introduction to Ethnic Studies
EST 201 Introduction to Race and Gender
EST 205 Jazz History
EST 325 Prehistory & History of Native American Cultures of SW
EST 329 Perspectives on Race and Ethnic Relations
EST 342 North American Indians

EST 350 Chicano History to 1910
EST 351 Chicano History Since 1910
EST 352 History of Latinos in the US
EST 358 Immigrant Histories
FCS 421 Hispanic Heritage of Colorado
HIST 350 Chicano History to 1910
HIST 351 Chicano History since 1910
HIST 352 History of Latinos in the US
HIST 358 Immigrant Histories
MUS 205 Jazz History
PHIL 323 Women's Equality, Women's Difference
PHIL 455 Feminism/Sexuality/Culture
SOC 220 Introduction to Racial and Ethnic Groups
SOC 225 Images of Women in Society
SOC 325 Power, Privilege, and Social Difference
SOC 329 Perspectives on Race & Ethnic Relations
SPAN 421 Hispanic Heritage of Colorado
SPAN 442 US/Latino Literature
THTR 328 Women in Theatre
WMST 200 Introduction to Women's Studies
WMST 201 Introduction to Race and Gender
WMST 225 Images of Women in Society
WMST 323 Women's Equality, Women's Difference
WMST 325 Power, Privilege, and Social Difference
WMST 455 Feminism/Sexuality/Culture

Please check with the college or the Student Success Center for additional approved courses.

Oral Communication Requirement

LAS Students are required to take a course with a substantial component involving oral communication. This course may be within a student's major department, as an elective, or as an approved general education (area requirements) course. Approved courses for the oral communication requirement are as follows:

CHEM 495 Chemistry Seminar I
CHEM 496 Chemistry Seminar II
COMM 201 Oral Communication in the Workplace
COMM 210 Public Speaking
COMM 324 Business and Professional Communication
COMM 410 Advanced Public Speaking
PES 481 Senior Physics Seminar
PHIL 104 Individual in Society: Creating a Self in Society
PHIL 495 Senior Thesis Seminar
SPED 407 Language Arts Instruction
T ED 460 School Experience-Elementary
T ED 470 School Experience-Secondary
THTR 202 Acting Workshop I
THTR 203 Acting Workshop II
THTR 204 Voice and Articulation I
THTR 310 On Camera Performance

Please check with the college or the Student Success Center for additional approved courses.

Global Awareness Requirement

While fulfilling their general education requirements, LAS students are required to take a course which increases their awareness of global issues. Approved global awareness courses are as follows

AH 345 Art of Japan
AH 445 Meso-American Art from the Pre-Columbian to Post-Colonial Eras
AH 447 Art & Ritual of the South Pacific
ANTH 104 Introduction to Cultural Anthropology
ANTH 240 Survey of Cultural Anthropology
ANTH 304 Women Around the World
BIOL 151 Environmental Science
CHEM 151 Environmental Science
ECON 371 Comparative Economic Systems
ENGL 260 Literature: The Global Perspective I
ENGL 261 Literature: The Global Perspective II
FCS 318 German and Austrian Civilization & Culture 1700-1918
FCS 319 20th Century German and Austrian Civilization and Culture
FCS 369 Topics in Hispanic Film
FCS 389 Field Studies in Language and Culture
FILM 200 Narrative Film
FR 325 Twentieth Century France
GER 318 German/Austrian Civilization and Culture 1700-1918
GER 319 20th Century German/Austrian Civilization and Culture
GES 198 World Regional Geography
GES 199 Human Geography
GES 340 Geopolitics
GES 382 The Geography of Mexico, Central America, and the Caribbean
GES 398 Places and Faces: Geographic Issues in Film
HIST 111 Asian History: Southeast Asia
HIST 112 Asian History: The Indian Subcontinent
HIST 113 Asian History: China
HIST 114 Asian History: Japan
HIST 140 Latin American History to 1810
HIST 141 Latin American History since 1810
HIST 359 Latin American History through Film
MUS 315 Introduction to Non-Western Music
PHIL 309 Philosophies of Asia
PHIL 310 World Religions
PHIL 324 Philosophy of War & Terrorism
PHIL 340 The Holocaust
P SC 101 Global Politics
P SC 421 International Politics
SOC 438 Globalization and Development
SPAN 369 Hispanic Culture through Film
WMST 304 Women Around the World

Please check with the college or the Student Success Center for additional approved courses.

Foreign Language Requirement

As of January 1, 1993, the College of Letters, Arts, and Sciences no longer has a foreign language requirement.

However, a variety of language classes will continue to be offered for students who wish to study a foreign language. Students contemplating graduate school should be aware that many graduate schools require proficiency in a foreign language.

Newly admitted freshmen are still required to have completed two units of foreign language at the high school level. Freshmen admitted who are deficient in this requirement may make up the deficiency as outlined in the beginning of the College of Letters, Arts, and Sciences section of this *Bulletin*. The foreign language placement examination will continue to be administered for those students wishing to determine their level of placement in a foreign language course. For information, contact the Language Technology Center on the second floor of Dwire Hall at (719) 262-3691.

Students are urged to continue language study in a timely manner, as proficiency declines rapidly without application of skills.

Note: If coursework in a foreign language taken at other institutions is repeated at the same level at UCCS, academic credit for any hours duplicated will not be counted toward graduation.

Major Requirements for LAS Students

Specific requirements for the major are detailed within each departmental program description that follows in this *Bulletin*. While some departments may require more, all LAS major requirements will include at least these minimum standards:

- A total of 30-54 hours in major courses
- A total of 30 hours of C grade or better in major courses
- A 2.0 grade point average in all required major courses
- A minimum of 16 hours of upper-division major courses.

Note: Not more than 54 hours in one discipline and not more than 30 hours outside the College of Letters, Arts, and Sciences may be counted toward graduation requirements.

Students may also complete a second major concurrently or at a later time. To do so, the student will be required to take at least an additional 30 hours, of which a minimum of 16 hours must be upper-division. All other major requirements apply.

Minor Opportunities and Requirements

The College of Letters, Arts, and Sciences has approved the opportunity for students to take optional minors in various disciplines, including business administration. Additional information is available from the academic advisors in either the College of Letters, Arts, and Sciences or in the College of Business. For information about optional minors, please refer to the appropriate department and program sections in this *Bulletin*.

Requirements for a Minor

The following college guidelines have been established for minor programs:

- A minimum of 18 credit hours of C- grade or better must be taken in a minor area, including a minimum of nine upper-division credit hours.
- Minor requirements may not be taken pass/fail.
- Students will be allowed no more than nine credit hours, including six upper-division credit hours, of transfer work toward a minor.
- Coursework applied toward a minor may also be applied toward general education requirements.
- Students may double count up to nine credit hours between a major and a stand-alone minor. Such double counting is permitted for at most one major and one stand-alone minor pair.

Program requirements other than those above may be established by departments and program directors. Departments will ensure that minor requirements are consistent with their major requirements.

Upper-Division Requirement

Students must complete at least 45 hours of upper-division work (courses numbered 300 and above) to be eligible for the bachelor's degree. Students may register for upper-division courses if they have met prerequisites or obtained departmental approval. Courses transferred from a junior/community college carry lower-division credit.

Departmental Programs and Course Requirements in the Colleges of Letters, Arts and Sciences

Anthropology

Faculty

Professor: Tom Wynn; ***Associate Professor Emeritus:*** Gerald Broce; ***Associate Professors:*** Forrest Tierson (Chair) and Linda Watts; ***Assistant Professors:*** Minette Church and Kimbra Smith; ***Instructors:*** Glenda Carne and Lindsey Roche; ***Instructor and Curator:*** Seyhan Dwellis; ***Research Instructor:*** William Arbogast.

Anthropology, Bachelor of Arts (BA)

Learning Outcomes

- Be able to read and critically assess arguments in a field that is notorious for its contentiousness
- Demonstrate understanding of key theoretical positions that have influenced anthropological thinking for at least two sub-disciplines
- Be familiar with the nature of data and research strategies in at least one of the four sub-disciplines and be able to construct arguments using that data
- Obtain a strong theoretical and methodological foundation in at least two sub-disciplines of the field and a generally solid foundation in all four

Major Requirements

The bachelor of arts (BA) in anthropology requires 36-54 credit hours of course work in anthropology.

Required Courses

In order to expose majors to the variety of perspectives incorporated in the discipline, the following department courses are required for graduation:

- ANTH 220 Survey of Prehistory
- ANTH 230 Survey of Biological Anthropology
- ANTH 240 Survey of Cultural Anthropology
- ANTH 280 Nature of Language

Majors must also take:

- ANTH 397 History of Anthropology
- ANTH 498 Senior Seminar (prereq: ANTH 397)

Recommended Courses

Students interested in specializing in archaeology should consider taking the following courses offered by other departments:

- GES 101 Environmental Systems: Landforms
- GES 305 Introduction to Cartography
- GES 405 Introduction to Geographic Information Systems
- GES 406 Introduction to Remote Sensing
- GES 431 Principles of Geomorphology
- GES 434 Soils

Indeed, anthropology students interested in pursuing a career in archaeology are urged to consider completing a minor in geography and environmental studies.

Minor Requirements

Students interested in the minor in anthropology must complete three of the following four 200 level courses:

- ANTH 220 Survey of Prehistory
- ANTH 230 Survey of Biological Anthropology
- ANTH 240 Survey of Cultural Anthropology
- ANTH 280 Nature of Language

They must also meet the college's minimum requirements for minor programs: 18 hour credit hours total, with 9 hours in the upper division.

Honors Program

In addition to the regular undergraduate curriculum in anthropology, the department offers students an honors program. Before or during the first semester of the junior year, interested students should contact any anthropology faculty member about this program.

Art History

See VAPA, Visual and Performing Arts Department

Bibliography

Faculty

Senior Instructors: Christina Martinez and Judith Rice-Jones.

Biology

Faculty

Professors Emeritus: James Mattoon and Douglas Swartzendruber; ***Associate Professors:*** Jackie Berning (Chair), Sandy Berry-Lowe, Robert Melamede and Karen Newell; ***Assistant Professors:*** Jeff Broker, Lisa Hines, Jon Pigage, Andrew Subudhi, and Tom Wolkow; ***Senior Instructor:*** Kathleen Malueg; ***Instructors:*** Susan Epperson, Wendy Haggren, and Joyce Rohan.

Instructional Fees

A laboratory fee is charged for all Biology courses with formal laboratories and/or fieldwork.

Biology, Bachelor of Arts, BA

Learning Outcomes: Biology, BA

- Apply the scientific method to the study of life and other biological principles and core concepts includ-

ing the ability to create a hypothesis given a specific scenario

- Acquire proficiency in lab techniques and computer based analysis specific to the biological field and adequately describe the principles and core concepts behind these techniques
- Read and analyze scientific papers, demonstrate critical thinking, and be able to effectively communicate through both oral and written means the principles and core concepts of biology to members of the scientific and non-scientific community
- Apply the logic of energy flow to any biological principle or core concept
- Articulate concepts regarding the connections between molecules, cell organisms, the ecosystem within the framework of evolution and the impact of evolution on ethical issues

Honors Program

The department of Biology offers a program for honors in biology to outstanding junior and senior students at UCCS. Individuals wishing to take advantage of this program should contact the department chair at the beginning of their junior year.

Qualifications for admissions to the honors program consist of a minimum grade point average of 3.5 overall. The honors applicant must complete BIOL 949 to be eligible for the honors program. Through the recommendation of the faculty of the Department of Biology, the successful honor student's degree diploma will bear the citation "with distinction, or high distinction or highest distinction in Biology." Honors students are required to form a faculty committee, complete a research project and present the research findings to the Biology Department at a seminar. Consult with a faculty advisor for more information regarding the Honors Program.

Major General Requirements

Credit hours: The biology major must complete at least 30 hours of coursework in biology including a minimum of 16 hours in upper division (300-400 level) courses.

Grades: A grade of C or above must be attained in all required courses.

Chemistry: All Biology students are required to complete these class sequences in chemistry:

- CHEM 103 General Chemistry I
- CHEM 106 General Chemistry II

And, depending on the option, (see advisor):

- CHEM 330/ 340 Organic Chemistry and Organic Chemistry Laboratory OR
- CHEM 331/333 and CHEM 332/334 the two semester Organic Chemistry/Organic Chemistry Laboratory

And, depending on the option (see advisor):

- BIOL 483 Biochemistry OR
- BIOL 481/482 Biochemistry two semester sequence

Note: Some Biology options require additional chemistry courses. Please check with your advisor about those courses.

Physics: All Biology students are required to take a two semester sequence in Physics:

- PES 101/115 and PES 102/215 Physics for Life Sciences I and II and associated laboratory **OR**
- PES 111/115 and PES 112/215 General Physics I and II and associated laboratory

Mathematics: All Biology majors are required to complete the following math courses:

- MATH 135 Calculus I (Biology students can waive MATH 135 by scoring 4 or 5 in the AP math-calculus test or a 3, 4, or 5 in the AP Math-Calculus BC test.)
- BIOL 300 Biology Statistics

Note: Some Biology options require additional math courses.

Independent Study/ Externships: A maximum of 8 hours of credit taken in BIOL 940-949 (Independent Studies) and BIOL 471-474 (Externships) count toward the major.

Biology Major Study Options and Course Requirements

Note: Students must see their advisor to declare a biology option from the choices below; options should be declared no later than the end of your sophomore year

Note: All 300-level courses and above presume the student having General Biology, General Chemistry, Organic Chemistry and General Physics. FAILURE TO TAKE COURSES IN THE RECOMMENDED SEQUENCE WILL RESULT IN FUTURE CONFLICTS

Options for Biology Major

- **Human Biology Option:** offered for students who are interested in pre-professional programs such as medicine, physician assistant, physical therapy and others or those wanting knowledge about human biology.
- **Exercise Science Option:** offers a unique experience and the opportunity to gain knowledge from faculty whose specialties are in exercise physiology, biomechanics and sports nutrition. The program is grounded in science and the application of science to exercise. Graduates of this program may pursue careers in sports medicine or physical therapy, or continue their education with graduate degrees in exercise physiology.
- **Molecular, Cellular and Biotech Option:** offered for students who want to understand biology at the molecular level, where it is governed by the laws of Physics and Chemistry. Graduates of this program may pursue careers in medicine, research, biotechnology and bioinformatics that exist in academic, government and private industry settings.

- **Organismic/Environmental Option:** offered for students interested in organisms, ecology, and evolution. This option gives students the opportunity to study the structure and functions of cells in animals and plants. Graduates of this program may pursue careers in wildlife management, ecology and natural resources.
- **Biology Education Option:** A degree option is available for elementary, secondary and special education teachers. Please contact the Student Success Center or the College of Education for further information.

Curricular Requirements for Biology Options

Course Requirements for Human Biology Option

General

Biol 110 General Biology I 3
Biol 111 General Biology I Laboratory 1
Biol 115 General Biology II 3
Biol 116 General Biology II Laboratory 1
Biol 300 Biology Statistics 3
Biol 302 Cell Biology 3
Biol 321 Human Physiology 3
Biol 383 Genetics. 3
Biol 401 Senior Seminar. 1
Biol 425 Evolution 3
Biol 483 Biochemistry 3
OR the two semester course sequence:
Biol 481 Biochemistry I 3
Biol 482 Biochemistry II 3

And Complete 4 of the following biology electives:
Biol 205, 310, 314, 330, 360, 361, 391, 430, 435, 455, 460, 477, 479, 480, 490

Chemistry Requirements for Human Biology Option

Chem 103 General Chemistry I
Chem 106 General Chemistry II
Chem 330 and 340 Organic Chemistry and corresponding lab (if you chose this organic chemistry then you must take Biol 483 Biochemistry) **OR**

the two semester course sequence:
Chem 331/333 Organic Chemistry I and corresponding Lab AND Chem 332/334 Organic Chemistry II and corresponding Lab (if you chose the two semester organic chemistry then you must take Biol 481 and Biol 482 Biochemistry)

Physics Requirements for Human Biology Option

Pes 101/115 Physics for Life Science I and corresponding lab
Pes 102/215 Physics for Life Science II and corresponding lab **OR** Pes 111/116 General physics I and corresponding lab
Pes 112/216 General Physics II and corresponding lab

Math Requirements for Human Biology Option

Math 135 Calculus I (or a score of 10 or above on the calculus readiness exam. A score of >15 is preferred)

Course Requirements for Exercise Science Option

General

Biol 110 General Biology I 3
Biol 111 General Biology I Laboratory 1
Biol 115 General Biology II 3
Biol 116 General Biology II Laboratory 1
Biol 300 Biology Statistics 3
Biol 302 Cell Biology 3
Biol 321 Human Physiology 3
Biol 330 Exercise Physiology 3
Biol 383 Genetics. 3
Biol 401 Senior Seminar. 1
Biol 425 Evolution 3
Biol 435 Human Anatomy 4
Biol 455 Biomechanics/Kinesiology 3
Biol 479 Laboratory Methods in Exercise Science 3
Biol 480 Advanced Practices in Exercise Physiology. . . . 3
Biol 483 Biochemistry 3
OR the two semester course sequence:
Biol 481 Biochemistry I 3
Biol 482 Biochemistry II 3

Complete one Biology elective course from the following list: Biol 205, 361, 430, 460, 477, 490

Chemistry Requirements for Exercise Science Option

Chem 103 General Chemistry I
Chem 106 General Chemistry II
Chem 330 and 340 Organic Chemistry and corresponding lab (if you chose this organic chemistry then you must take Biol 483 Biochemistry) **OR**
the two semester course sequence:
Chem 331/333 Organic Chemistry I and corresponding Lab AND Chem 332/334 Organic Chemistry II and corresponding Lab (if you chose the two semester organic chemistry then you must take Biol 481 and Biol 482 Biochemistry)

Physics Requirements for Exercise Science Option

Pes 101/115 Physics for Life Science I and corresponding lab
Pes 102/215 Physics for Life Science II and corresponding lab **OR** Pes 111/116 General Physics I and corresponding lab
Pes 112/216 General Physics II and corresponding lab

Math Requirements for Exercise Science Option

Math 135 Calculus I (or a score of 10 or above on the calculus readiness exam. A score of >15 is preferred)

Course Requirements for Molecular, Cellular and Biotech Option

General

Biol 110 General Biology I 3
Biol 111 General Biology I Laboratory 1
Biol 115 General Biology II 3
Biol 116 General Biology II Laboratory 1
Biol 300 Biology Statistics 3
Biol 302 Cell Biology 3
Biol 383 Genetics. 3
Biol 401 Senior Seminar. 1

Biol 425 Evolution 3
Biol 481 Biochemistry I 3
Biol 482 Biochemistry II 3

Complete two Biology Elective Lab courses from the following list: Biol 384, 409, 486

Complete one Biology Elective Metabolism/physiology course from the following list: Biol 321, 322, 330, 440, 477

Complete one Biology Elective Microbiology course from the following: Biol 310/311 or Biol 314

Complete two Biology Elective Molecular/Cellular courses from the following: Biol 361, 405, 409, 431, 467, 484

Chemistry Requirements for Molecular, Cellular and Biotech Option
Chem 103 General Chemistry I
Chem 106 General Chemistry II
Chem 331 Organic Chemistry I
Chem 333 Organic Chemistry I Laboratory
Chem 332 Organic Chemistry II
Chem 334 Organic Chemistry II Laboratory
Chem 450 Biophysical Chemistry

Physics Requirements for Molecular, Cellular and Biotech Option
Pes 111 General Physics I
Pes 116 General Physics I Laboratory
Pes 112 General Physics II
Pes 216 General Physics II Laboratory

Math Requirements for Molecular, Cellular and Biotech Option
Math 135 Calculus I
Math 136 Calculus II

Course Requirements for Organismic/ Environmental Option
General
Biol 110 General Biology 3
Biol 111 General Biology I Laboratory 1
Biol 115 General Biology II 3
Biol 116 General Biology II Laboratory 1
Biol 300 Biology Statistics 3
Biol 302 Cell Biology 3
Biol 370 General Ecology 3
Biol 383 Genetics. 3
Biol 401 Senior Seminar. 1
Biol 425 Evolution 3
Biol 483 Biochemistry 3
OR the two semester course sequence:
Biol 481 Biochemistry I 3
Biol 482 Biochemistry II 3

Complete the following Biology Elective courses:
Biol 321 or Biol 322 or Biol 323
Biol 428 or Biol 443
Biol 415 or Biol 420
Biol 375 or Biol 426, or GES 405

Chemistry Requirements for Organismic/ Environmental Option
Chem 103 General Chemistry I
Chem 106 General Chemistry II
Chem 330/340 Organic Chemistry and corresponding lab (if you chose this organic chemistry then you must take Biol 483 Biochemistry)
OR the two semester course sequence:
Chem 331/333 Organic Chemistry I and corresponding Lab AND Chem 332/334 Organic Chemistry II and corresponding Lab (if you chose the two semester organic chemistry then you must take Biol 481 and Biol 482 Biochemistry)

Physics Requirements for Organismic/ Environmental Option
Pes 101/115 Physics for Life Science I and corresponding lab
Pes 102/215 Physics for Life Science II and corresponding lab **OR**
Pes 111/116 General Physics I and corresponding lab
Pes 112/216 General Physics II and corresponding lab

Math Requirements for Organismic/ Environmental Option
Math 135 Calculus I (or a score of 10 or above on the calculus readiness exam. A score of >15 is preferred)

Master of Sciences (MSc), Biology

The department of Biology is part of an interdisciplinary Master of Sciences (MSc) program. For applications and initial advising contact Dr. Sandra Berry-Lowe at (719) 339-5276 or E-mail: sberrylo@uccs.edu. The department offers three areas of emphasis within the MSc program: exercise science, biochemistry and biotech and organismic.

See the description of the MSc program at the end of the Letters, Arts and Sciences section in this *Bulletin*.

Chemistry

Faculty

Professors: James Eberhart, Ronald Ruminski (Chair) and Allen Schoffstall; ***Associate Professors:*** David Anderson and Radha Pyati; ***Assistant Professors:*** Sonja Braun-Sand and David Weiss; ***Professor Adjunct:*** Gordon Kresheck; ***Senior Instructor:*** Chester Dymek; ***Instructors:*** Cynthia Applegate, Larry Augenstein, Cris Johnson, Brett Mayer and Mary Bethé Neely.

Program Description

Two programs of study (BS and BA) are open to students wishing to major in chemistry. The program leading to the degree of Bachelor of Science in chemistry is intended for those who plan to choose chemistry as a profession. This program should also be elected by students who plan to go on to graduate school in chemistry. This program is certified by the American Chemical Society (ACS). The Department of Chemistry at UCCS is one of 600 in the United States that is approved by the ACS. Many BS graduates gain employment as chemists upon completion of their BS degree

program. Others go on to graduate studies.

Students wishing a less comprehensive program in chemistry, such as premedical students, should elect the Bachelor of Arts degree with a major in chemistry. Judicious selection of additional courses permits the BA major to satisfy prerequisites for admission to graduate study in chemistry or related fields of study. There are five options for the BA: a general option, an environmental chemistry option, a biochemistry option, a pre-health professional option and a teacher education option.

Students who are planning to complete a BA in biology may complete a biology/ chemistry double major. This chemistry program is available only to those who also complete the biology major.

Several chemistry courses are offered as a service to students majoring in other science fields and in social sciences and arts and humanities fields. CHEM 151 Environmental Science is a beginning level course that has no chemistry prerequisites. CHEM 100 Chemistry in the Modern World is offered for non-science majors. CHEM 121 Introduction to Physical Science is an integrated science course with a focus on chemistry for non-science majors. CHEM 301 Materials Science, and CHEM 388 Forensic Chemistry are offered as elective courses for science majors.

A teacher education degree option is available for secondary education teachers. Please contact the Student Success Center or the College of Education for further information concerning the education requirements for this option.

Students may also select a minor in Chemistry, apply to the Master of Sciences program in Chemistry, or complete a dual BS/MSc or BA/MSc degree.

Several chemistry courses are not offered every year. Check the *Schedule of Courses* for offerings available each semester.

Advising

Students majoring in chemistry should keep a copy of the Department of Chemistry Advising Brochure that is in effect when they declare a major. This brochure will be referred to throughout the student's career. Students are bound to the rules in effect when they first declare. This is important because the rules and course requirements may change somewhat from year to year. Chemistry majors should consult regularly with departmental faculty advisors, and in particular with the department chair, as outlined in the advising brochure. Academic advising is a very important aspect of one's education. Decisions on application to medical, dental and graduate schools and on employment are also critical. Students should consult faculty advisors when making these decisions.

Additional Departmental Rules

Area Requirements: Natural Science

Students who complete a chemistry degree may count 10 semester hours of PES 111, 112, 116, and 216 as part of their natural science area requirement. Since PES 111, 112, 116, and 216 are not on the approved list of courses, students not completing a chemistry degree cannot count these courses toward their area requirement for a non-chemistry College of Letters, Arts, and Sciences degree.

Chemistry Electives

For chemistry majors, chemistry electives must be chosen from upper division chemistry courses.

Exams

All students intending to elect CHEM 103 will complete a diagnostic examination to cover math skills. Students in many chemistry courses will be examined using standardized ACS subject exams. Students who have not taken chemistry in high school should take CHEM 115.

Grade Requirements

Chemistry majors must achieve grades of C or better in all chemistry courses required for the major. Grades of C or higher are also required for all required biology, physics and math courses.

Laboratory Fee

There is a $40 fee for each laboratory course: one course, $40; two courses, $80; etc. The policy for fee refunds for dropping or withdrawing is described in the General Information section. Independent study courses are considered to be lab courses. Lab fees are charged for these courses.

Learning Outcomes, Chemistry, BS/BA

- Have knowledge of general organic, analytical, physical and inorganic areas of chemistry and biochemistry, and an integrated overview of chemistry
- Have knowledge of additional areas of biology, mathematics, physics, and technology and be able to manipulate experimental data and understand the derivation of fundamental relationships
- Be able to compete effectively for a position in the workplace as a professional chemist, for admission to graduate or professional schools, and for careers in other fields
- Be able to communicate effectively about the field of chemistry

Honors Program

In addition to the normal undergraduate curriculum in chemistry, the department offers interested and qualified undergraduates an opportunity to further increase the breadth and depth of their chemical training through the Departmental Honors Program.

Qualified students are invited to participate in honors sections of CHEM 106 and CHEM 331-332. To participate fully in the chemistry honors program, invited students should also complete an independent study honors project in chemistry and submit an honors thesis to the department. Students completing an honors thesis will automatically be

considered for graduation with departmental honors. Other students may also qualify for departmental honors based upon the grade point average in all chemistry, physics, math and biology courses taken at UCCS.

Prior to or during the first semester of the junior year, interested students should contact any chemistry faculty member regarding the prospect of graduation with departmental honors. Graduation with departmental honors requires students to have achieved at least a 3.4 grade point average, and to carry out an independent study project, which is to be reported in both written and verbal forms (seminar).

Undergraduate Research

All chemistry majors are strongly encouraged to enroll for independent study and to become engaged in one or more research experiences. Many students start on their research in the sophomore year and definitely in the junior year. Apply by seeing the department chair or another Chemistry faculty member.

Chemistry – Bachelor of Science (BS)

The BS in chemistry is a professional degree program accredited by the American Chemical Society, designed to prepare the student for a career in chemistry; this includes those anticipating admission to graduate study in chemistry. The program is not intended as a preparation for the study of medicine. Premedical students who wish to major in chemistry should elect the BA pre-health professional degree with a major in chemistry.

The BS in chemistry requires more breadth and depth in chemistry, mathematics, and physics than the BA in chemistry. Students desiring a BS in chemistry are typically planning graduate studies in chemistry and/or careers as professional chemists in industry, private laboratories, and government agencies.

The program features courses from each of the main areas of chemistry: analytical, inorganic, organic, physical and biochemistry. Aspects of analytical and biological chemistry are introduced in general chemistry and organic chemistry. They are then treated in detail in advanced courses in analytical chemistry. Inorganic chemistry is introduced in general chemistry. A two-semester lecture-laboratory sequence in inorganic chemistry is taken by seniors after they have had physical chemistry. The inorganic courses are founded upon modern theories of bonding and orbital symmetry.

Organic chemistry is covered in a one-year sequence featuring a rigorous laboratory program where synthetic and spectroscopic methods are introduced. A comprehensive treatment of the principles of thermodynamics, quantum mechanics, kinetics, and spectroscopy is encompassed in the two-semester physical chemistry sequence.

The BS in chemistry program requires a strong preparation in mathematics through calculus and three semesters of physics.

Students wishing to pursue graduate study in chemistry should select independent study projects involving laboratory work by their junior year.

BS, Chemistry Curricular Programs

Suggested four-year sequences of courses are shown below. The courses required for the BS degree are implicit in this sequence. Students who have started their programs by taking CHEM 100 or 101, and who decide to major in chemistry or another science, should take the CHEM 103-106 sequence. Students electing the BS degree who have taken CHEM 331, 332, 333, 334 before deciding to major in chemistry should take two hours of credit in CHEM 940 (Independent Study) in organic chemistry or CHEM 338.

Students are required to select three upper-division electives in chemistry. Two may be CHEM 940-6.

Four-Year Curriculum for a BS in Chemistry

Freshman Year

CHEM 103, 106 (108 also recommended)	10
MATH 135, 136	8
ENGL 131, 141	6
C S 105, 106 or 107 (recommended)	(3)
BIOL 110, 111	4
Elective	3

Sophomore Year

CHEM 331, 332	6
CHEM 337, 338	4
PES 111, 112, 116, 216.	10
MATH 235, (340 recommended)	4 (7)
Electives	6

Junior Year

CHEM 451, 452, 455	8
CHEM 417, 418, 420	9
PES 213	3
CHEM 483	3
Electives	6

Senior Year

CHEM 401, 402	7
CHEM 495, 496	2
Chemistry electives (upper-division)	9
Electives	12
Total Hours	**120**

All chemistry core courses are offered every year; not all chemistry elective courses are offered every year.

Chemistry – Bachelor of Arts, BA

This degree program is suitable for students wishing a major in chemistry that requires fewer credit hours in chemistry, physics, and mathematics than the BS degree. BA graduates may be students interested in a more general degree, premedical or pre-dental students, students having an interest in both biology and chemistry or chemistry and some other discipline, students who switch over to a chemistry major

during their third or fourth year of college, or students who are unsure of their goals early in their college experience. Many BA students choose to go on to graduate school in chemistry and prepare themselves by taking sufficient courses in chemistry and related disciplines in order to qualify for acceptance.

There are five chemistry degree options within the BA: general, environmental, biochemistry, pre-health professional, and teacher education. Recommended year-by-year curricula for each option follow.

Note: Additional elective courses for BA chemistry majors, excluding Chem/Biol double majors, are CHEM 940-6 or other electives.

Chemistry BA, General Option – 4-year Curriculum

Freshman Year

CHEM 103, 106 (108 also recommended) 10
MATH 135, 136 8
ENGL 131, 141 6
Electives 6
Total 30

Sophomore Year

CHEM 331, 332 6
CHEM 337, 338 4
PES 111, 112 8
PES 116, 216 2
BIOL 110,111 4
Electives 6
Total 30

Junior Year

CHEM 417, 418, 420 9
CHEM 451, 452, 454 7
CHEM 483 3
Electives 12
Total 31

Senior Year

CHEM 401 3
CHEM 495, 496 2
Chemistry electives (upper-division) 6
Electives 18
Total **29**
Total Hours 120

Chemistry BA, Environmental Chemistry – 4-year Curriculum

This BA program is designed for those students having an interest in environmental processes and problem solving from a chemical perspective. Many environmental issues are multi-dimensional and require the application of chemical principles, processes, and techniques within other disciplines. The strength of this program option is the combination of chemical principles with those of other earth systems. This degree program will give the student a solid foundation in chemistry while pursuing a multi-disciplinary approach that includes coursework in biology, ecology, geography, and economics.

Freshman Year

CHEM 103, 106 (108 also recommended) 10
MATH 135, 136 8
ENGL 131, 141 6
BIOL 110,111 4
LAS area requirement 3

Sophomore Year

CHEM 331, 332 6
CHEM 337, 338 4
PES 111, 112 8
PES 116, 216 2
BIOL 370 3
GES 100 4
Elective 3

Junior Year

CHEM 341 3
CHEM 417 4
CHEM 451, 452, 454 7
CHEM 483 3
ECON 101 3
GES 441 3
Electives 6

Senior Year

CHEM 495, 496 2
CHEM 401 3
CHEM 418 3
CHEM 420 2
GES 450 or GES 451 3
Chemistry Elective 3
Electives (Upper Division) 14
Total Hours 120

Chemistry BA, Biochemistry – 4-year Curriculum

This BA program has been established particularly for those students having an interest in biological chemistry and biochemistry. Biochemistry students really need a large part of two majors, one in chemistry and one in biology. The biochemistry option was designed to include as requirements those courses that are fundamental to the field of biochemistry.

The most important feature of the program is that two semesters of biochemistry are required as well as a biochemistry laboratory course. Genetics and molecular genetics are also required. The program requires two semesters of physical chemistry.

Freshman Year

CHEM 103, 106 (108 also recommended) 10
MATH 135, 136 8
BIOL 110, 111 4
ENGL 131, 141 6
Elective 3

Sophomore Year
CHEM 331, 333 5
CHEM 332, 334 5
BIOL 302 3
PES 111, 112 8
PES 116, 216 2
Electives 6

Junior Year
CHEM 417 4
CHEM 451, 452, ... 7
CHEM 481, 482 7
CHEM 455 or 486 . . . . . 2 or 3
Electives 9

Senior Year
CHEM 495, 496 2
BIOL 383 3
Electives 19
Chemistry Electives (Upper Division) 6
Total Hours 120

Chemistry BA, Pre-Health Professional Option – 4-year Curriculum

The BA degree in chemistry with pre-health option is designed for students who are interested in chemistry and who plan a career in a health-oriented profession such as medicine or dentistry. This option requires courses similar to those required by medical and dental schools. It requires 36 credit hours of chemistry. The degree program allows for 36 elective credit hours.

Students who wish to work as chemists or to pursue graduate studies in chemistry should elect one of the other program options (either BS or BA in chemistry) rather than the Pre-Health Option.

Freshman Year
CHEM 103, 106
(108 also recommended) 10 (11)
MATH 135, 136 8
BIOL 110, 111, 115, 116 8
ENGL 131, 141 6

Sophomore Year
CHEM 331, 332 and 333, 334, or 337, 338 10
ENGL 150 3
PES 101, 102, 115, 215 or 111, 112, 116, 216 10
Elective or area requirements 6

Junior Year
CHEM 417, 450, 483 10
Electives or area requirements 20

Senior Year
CHEM 401, 454, 486, 495 or 496. 8
Electives or area requirements 21
Total Hours 120

Recommended Electives
It is recommended that students take one or two chemistry elective courses or independent study in addition to the required courses, e.g., CHEM 418 and 420 or a chemistry elective course such as CHEM 301, 341 or 531, etc.

Chemistry BA, Teacher Education Option – 4-year Curriculum

The BA degree in chemistry with teacher education option is designed for students wishing to be high school chemistry teachers. This program has very specific requirements and no room for elective courses that will count towards graduation. It is important to consult with advisors for the Department of Chemistry and the College of Education.

Students who wish to work as chemists or to pursue graduate studies in chemistry should elect one of the other program options (either BS or BA) in chemistry rather than the Teacher Education option.

Freshman Year
CHEM 103, 106 (108 also recommended) 10 (11)
MATH 135, 136 8
ENGL 131, 141 6
PHIL 100 or 102 3
Electives or area requirements 5

Sophomore Year
CHEM 331, 332 and 333, 334 (or 337, 338) 10
BIOL 110, 111, 151. 7
PES 101, 102 115 and 215and 105 or 106 10
PSY 100 4

Junior Year
CHEM 405*, 417, 451 and 483 11
PES 105 or 106 3
GEOL 101 4
Humanities (300 level course) 3
Electives and an Education course 11
*Teaching Ed program students registering for CHEM 405 Introduction to Lab Teaching, must contact the Department of Chemistry three months prior to the start of the semester to determine an appropriate laboratory that they will teach.

Senior Year
Required education courses
(Consult with the College of Education) 31
Total Hours 127

Recommended Courses
This Teacher Education in Chemistry curriculum allows for little flexibility for completion in 127 credit hours. However, it is recommended that students take one or two chemistry elective courses or independent study in addition to the required courses. Be aware that taking these additional courses will require more hours for graduation than 127 credit hours.

Biology/Chemistry Double Major

This option provides for a double major: a major in chemistry for students who also fulfill requirements for a BA in biology. A student who completes all requirements for the BA in biology at UCCS may also complete a BA in chemistry by finishing the following coursework with grades of C or better. Cross-listed courses may not be double counted towards both majors. Cross-listed courses to be used for the chemistry major must be selected as CHEM courses.

Required Courses:
General Chemistry: Chem 103 and 106 10
Organic Chemistry: Chem 331, 332 and
333, 334 or 337, and 338 10
A student must also take Chem 417 and Chem 450
PES 101, 102, 115, 215
Math 135, Calculus I.

Additional Requirements
In addition to the above requirements, students must select 2 additional 400 or 500 level courses from those listed below, keeping in mind that they cannot count Chem 451, Chem 481, or Chem 483:
CHEM 531 Advanced Organic Chemistry I
CHEM 532 Advanced Organic Chemistry II
CHEM 482 General Biochemistry II (if Biochemistry 481 taken as Biol 481)
CHEM 486 Biochemistry Laboratory (prereq Chem 480 or 481)
CHEM 517 Electrochemistry (prereq. Chem 452)
CHEM 940 Independent Study in Chemistry
Up to 3 credits of Chem 390 may be counted as an upper level CHEM elective provided the 3 credit hours are accumulated under the guidance of one faculty advisor, and that a written project report is submitted and accepted.
CHEM 401 Inorganic Chemistry I (prereq Chem 450 or 451)
CHEM 402 Inorganic Chemistry II (prereq. Chem 401)
CHEM 418 Instrumental Analysis (prereq. Chem 417 and PES 112)
CHEM 484 Molecular Genetics (prereq. Biol 383)
CHEM 420 Practical Instrumental Analysis II (prereq. Chem 417, 452, coreq. Chem 418)
CHEM 405 Topics in Chemistry

Some Topics in Chemistry classes may be applied as an upper level chemistry elective. Check with the department to confirm that a particular topic offering will count.

Minor in Chemistry

A student may complete a minor in chemistry by finishing the following coursework with grades of C or better:

- one year of General Chemistry (CHEM 103 and 106) CHEM 101 and 102 cannot be substituted for these requirements.
- one year of Organic Chemistry (the sequence CHEM 331, 332, 333, 334, or the sequence CHEM 331, 332, 337, 338)
- two courses selected from CHEM 450 or 451 (not both)
- Analytical Chemistry 417
- Inorganic Chemistry 401

Chemistry 330 does not satisfy any portion of the required one year of the organic chemistry sequence. Students should familiarize themselves with the prerequisite requirements for these courses.

Chemistry – Master of Sciences, MSc

The Master of Sciences (MSc) Chemistry Option is a research Master's degree program offered with a thesis only option. It provides students with advanced courses in analytical, biochemistry, inorganic, organic and physical chemistry. Research areas include those above and environmental chemistry. The degree program is designed for students who desire a research degree and advanced course work.

Prospective students must meet the entrance requirements of the Graduate School (listed elsewhere in this *Bulletin*) and of the Department of Chemistry.

Specifically, the applicant is expected to have a BA or BS degree with the equivalent of a chemistry major from an accredited institution, and show promise and ability to pursue advanced study and research in chemistry. Please consult with the department office for a complete program description, or contact the Master of Sciences Chemistry advisor, Dr. Al Schoffstall.

Dual BS/MSc or BA/MSc

A dual BS/MSc or BA/MSc program is available. Consult the department advisor concerning this program.

Note: Students applying to the MSc program with chemistry as a major focus must have at least 20 semester credit hours of chemistry (through two semesters of organic chemistry).

Communication

Faculty

Professors: Michael Hackman, Donald Morley, Pam Shockley, Constance Staley, and Kim Walker; ***Associate Professors:*** Adelina Gomez and David Nelson (Chair); ***Assistant Professor:*** Sherry Morreale; ***Visiting Assistant Professor:*** Gaynelle Winograd; ***Senior Instructors:*** Connie Blackmann and Marguerite Cantu; ***Instructors:*** Laura Eurich, Shawn Morgan, and JaNae Stansbery; ***Oral Communication Center Director:*** William Huddy.

Communication Advising

Undergraduate: Dr. Adelina Gomez, Director of Undergraduate Studies Department of Communication, UCCS; ***minor option in Leadership Studies:*** Dr. Michael Hackman, Department of Communication UCCS

Graduate: Dr. Sherry Morreale, Director of Graduate Studies, Department of Communication, UCCS

Communication – Bachelor of Arts, BA

A Bachelor of Arts in Communication offers four degree options: Organizational Communication, Media Management, and Recording Arts, and Applied Communication. The first three options are specialized areas of study. The Applied Communication option allows a student to prepare for a career in communication with courses tailored to the individual student's interests and career objectives.

Students pursuing a degree in Communication prepare themselves for a broad range of employment opportunities in both the public and private sectors. An internship for advanced students majoring in Organizational Communication, Media Management, or Recording Arts helps focus career objectives. Potential interns must have a minimum overall GPA of 3.0. Internships are competitive and all qualified students are not guaranteed an internship. Internships are not available for Applied Communication students or students minoring in Communication.

Learning Outcomes, Communication BA

- To expand students' knowledge and abilities in the communication field in order to prepare them for employment and future graduate studies and research
- To prepare students with a thorough background in the discipline of communication
- To provide a service function by contributing to the liberal education of non-communication majors who take courses in communication

General Degree Requirements:

The following degree requirements apply to all Communication majors:

- Minimum of 36 (for Applied Track) maximum of 54 hours for all majors
- Minimum cumulative GPA of C (2.0) or better in all communication courses
- At least half of required major coursework must be upper division (18 hours minimum)
- All graduating Communication majors must take an exit exam which samples the student's understanding of the major concepts of his/her content area. Students will take the exam during their last semester. Graduating seniors will receive information regarding test times, dates, and locations.
- Further, all transfer students must complete a minimum of 12 credit hours of coursework in the UCCS Department of Communication.

BA, Communication – Organizational Communication

(42 hours)

Undergraduate students may apply for admission to the Organizational Communication track after completing COMM 250 and COMM 224 and after having met the Writing Competency requirement for the College of Letters, Arts, and Sciences. The combined GPA for COMM 250, COMM 224, and any course(s) taken to meet the Writing Competency Requirement must be 3.0 or higher for students to be considered for admission to the Organizational Communication track.

Organizational communication majors must take a minimum of 42 hours of communication coursework, including the following requirements which cannot be waived:

Core Requirements

- COMM 224 Introduction to Organizational Communication
- COMM 324 Business and Professional Communication
- COMM 424 Advanced Organizational Communication (Spring only - Prerequisite: Admission to Organizational Communication Track, or consent of instructor.)
- COMM 469 Internship in Communication

Additional Course Requirements which cannot be waived:

- COMM 102 Interpersonal Communication
- COMM 203 Intro to Communication Theory
- COMM 210 Public Speaking
- COMM 250 Research Methods
- COMM 315 Communication in Groups and Teams
- COMM 328 Intercultural Communication
- COMM 344 Leadership Communication
- COMM 400 Rhetorical Dimensions in Communication
- COMM 451 Quantitative Methods in Communication Research (Fall only – Prerequisite: Math 104 and admission to Organizational Communication Track; or consent of instructor)

Other Required Course

select one from among the following:

One College of Business course from either Marketing, Human Resources, or Organizational Management OR

COMM 461 Principles and Practice of Public Relations

BA, Communication - Media Management

(42 hours)

Undergraduate students may apply for admission to the Media Management track after completing COMM 100, COMM 201, COM 227, COM/JOUR 290 and all courses fulfilling the Writing Competency requirement for the College of Letters, Arts and Sciences.

Media Management majors must take a minimum of 42 hours of Communication coursework, including the following requirements (which cannot be waived):

Core Requirements

- COMM 100 Contemporary Mass Media

- COMM 201 Oral Communication in the Workplace
- COMM 227 Beginning Television Production
- COMM 290 Writing for Media
- COMM 345 The History of TV Programming
- COMM 365 Mass Media and Society
- COMM 445 Advertising Media
- COMM 450 Media Management
- COMM 461 Principles and Practice of Public Relations
- COMM 469 Internship in Communication

Additional Course Requirements

Select any four courses from among the following:

- COMM 250 Research Methods
- COMM 315 Communication in Groups and Teams
- COMM 327 Intermediate Television Production
- COMM 328 Intercultural Communication
- COMM 344 Leadership Communication
- COMM 350 American Cinema
- COMM 420 Persuasion
- COMM 422 Creative Communication
- COMM 425 Advanced Interpersonal Communication: Conflict Management
- COMM 940 Independent Study
- MKTG 300 Principles of Marketing
- MKTG 330 Marketing Research

BA, Communication - Recording Arts
(42 hours)
Undergraduate students may apply for admission to the Recording Arts after completing COMM 100, COMM 225, COMM/JOUR290 and all courses fulfilling the Writing Competency requirement for the College of Letters, Arts and Sciences.

Recording Arts majors must take a minimum of 42 hours of Communication coursework, including the following requirements (which cannot be waived):

Core Requirements

- COMM 100 Contemporary Mass Media
- COMM 201 Oral Communication in the Workplace
- COMM 225 Introduction to Film and Video
- COMM 227 Beginning Television Production
- COMM 290 Writing for Media
- COMM 327 Intermediate Television Production
- COMM 330 Scriptwriting
- COMM 350 American Cinema
- COMM 427 Advanced Television Production
- COMM 469 Internship in Communication

Additional Course Requirements

select any four courses from among the following:

- COMM 310 Directing Studio Performance
- COMM 315 Communication in Groups and Teams
- COMM 328 Intercultural Communication
- COMM 345 The History of TV Programming
- COMM 365 Mass Media and Society
- COMM 417 Documentary Film and Video
- COMM 422 Creative Communication
- COMM 445 Advertising Media
- COMM 461 Principles and Practice of Public Relations
- COMM 940 Independent Study
- V A 103 Introduction to Photography
- V A 210 Digital Imaging
- V A 310 Advanced Digital Imaging

BA, Communication - Applied Communication Option
(36 hours, must include 18 hours of upper division coursework)

Communication majors who do not specify a special area of interest must take a minimum of 36 hours of communication coursework, including the following core requirements which cannot be waived:

- COMM 102 Interpersonal Communication
- COMM 203 Intro to Communication Theory
- COMM 210 Public Speaking
- COMM 250 Research Methods
- COMM 400 Rhetorical Dimensions in Communication

Minors in Communication

Students may elect to minor in Communication by completing one of the following four curricular options: general, organizational communication, media, or leadership studies. Each minor requires a concentration of 18 hours, nine of which must be upper division.

General Communication Minor

- COMM 102 Interpersonal Communication
- COMM 203 Intro to Communication Theory
- COMM 365 Mass Media and Society
- COMM 210 Public Speaking
- COMM 400 Rhetorical Dimensions of Communication
- AND any two upper division Communication courses.

Organizational Communication Minor

- COMM 102 Interpersonal Communication
- COMM 224 Introduction to Organizational Communication
- COMM 324 Business and Professional Communication
- COMM 424 Advanced Organizational Communication (Spring only)

And two of the following five courses:

- COMM 315 Communication in Groups and Teams
- COMM 328 Intercultural Communication
- COMM 344 Leadership Communication
- COMM 365 Mass Media and Society
- COMM 425 Advanced Interpersonal Communication: Conflict Management

Media Minor

- COMM 225 Intro to Film and Video
- COMM 227 Beginning Television Production
- COMM 290 Writing for the Media
- COMM 365 Mass Media and Society

And two of the following four courses:

- COMM 350 American Cinema
- COMM 445 Advertising Media
- COMM 450 Media Management
- COMM 461 Principles and Practice of Public Relations

Leadership Studies Minor

The minor option in Leadership Studies is designed to facilitate and enhance the transformation of students as they discover their full potential and become enlightened leaders within a democratic society. Core and elective faculty are drawn from the Colleges of Letters, Arts and Sciences; Business; and Education.

General Requirements for Leadership Studies minor option:

- Completion of 18 credit hours
- 3 core courses in Leadership Studies
- 1 elective from each Leadership Content Area
- All courses must be completed with a Cumulative GPA of C (2.0) or better.

Up to nine hours of courses taken as part of the Leadership Studies minor may also be counted toward a major in another LAS degree program.

Leadership Studies Core Requirements:
(9 credit hours)

- COMM 111 Introduction to Leadership
- LEAD 211 Profiles of Leadership
- COMM 495 Seminar in Leadership and Organizational Change

Leadership Content Area Electives:
(9 credit hours)

select one course from each of the following three areas:

Understanding Diversity

- COMM/WMST 215 Male/Female Communication
- COMM 328 Intercultural Communication
- PSY/WMST 301 Women in Politics
- PSY 345 Psychology of Diversity
- PSY/WMST 355 Psychology of Women
- SOC/EST 220 Intro to Racial and Ethnic Groups
- SOC/EST 329 Race and Ethnic Relations

Management & Organizational Leadership

- COMM 344 Leadership Communication
- ORMG 330 Intro to Management and Organization
- ORMG 437 Organizational Development & Change
- PHIL 416 Business & Management Ethics
- SOC 435 Formal Organization

Social and Political Applications of Leadership

- ECON 330 Environmental Economics
- ID/GES/EST 366 Community Service
- LEAD 450 Student Leadership Seminar (only for students in Chancellor's Leadership Class)
- PHIL 414 Environmental Philosophy
- P SC 439 The Presidency
- SOC 222 Communities in a Global Environment PSC 407 Urban Politics
- COMM 577 Leadership Communication in a Global Environment

Communication – Master of Arts, MA

The Master of Arts (MA) in Communication at UCCS offers students the opportunity to engage in advanced study in Communication. Students are required to complete a set of five core courses. These courses prepare students in both theoretical and applied concepts.

Both thesis and non-thesis options are available. Plan I is with thesis. This plan involves 33 hours of coursework, of which up to six hours may be thesis credit. Plan II is without thesis and requires a minimum of 36 hours of coursework.

Under all plans, no more than six hours of graduate coursework may be transferred from other universities to fulfill the degree requirements for the MA in Communication.

Learning Outcomes

- MA graduates will demonstrate proficiency in designing and conducting original research.
- MA graduates will demonstrate broad-based knowledge and understanding of communication processes and theories.
- MA graduates will demonstrate well-developed communication skills that prepare them for success in the workplace.
- MA graduates will demonstrate broad-based knowledge and understanding of communication processes and theories as well as well-developed communication skills that prepare them for success in further graduate studies, including a doctoral program, should they pursue this option.

Core course requirements, Plans I and II:

- COMM 551 Introductory Quantitative Methods for Communication Research (Fall only)
- COMM 560 Advanced Communication Theory (Spring only)
- COMM 580 Qualitative Research Practices in Communication Studies (Spring only)
- COMM 601 Introduction to Graduate Studies (Fall only)
- COMM 651 Intermediate Quantitative Methods for Communication Research (Spring only)

Coursework requirements

Plan I (THESIS)

- The five core courses (15 credits)
- Minimum of three (maximum of five) graduate elective courses in communication (9-15 credits)
- One graduate level course from outside the department (3 credits)
- Maximum of six hours of thesis credit (6 credits)

Plan II (NON-THESIS)

- The five core required courses (15 credits)
- Six graduate elective courses in communication (18 credits)
- One graduate level course from outside the department (3 credits)

Elective Course Offerings

- COMM 510 Advanced Public Speaking
- COMM 515 Communication for the Classroom Teacher
- COMM 524 Seminar in Organizational Communication
- COMM 529 Sustainability and Corporate Social Responsibility
- COMM 569 Problems in Radio, Television, and Film
- COMM 570 Instructional Media
- COMM 577 Leadership Communication in a Global Environment
- COMM 595 Leadership and Organizational Change
- COMM 599 Multicultural Diversity and Communication
- COMM 602 Research Practicum
- COMM 625 Problems in Communication
- COMM 626 Communication, Training and Development
- COMM 699 Emerging Communication Technologies

MA, Communication Admission Requirements

There are three types of admission:

Guaranteed Admission: This program is designed to offer outstanding UCCS students enrolled in their final semester of undergraduate coursework guaranteed and expedited admission to the MA program in Communication. To qualify for guaranteed admission, a student must be a Communication major with a minimum GPA of 3.7 in all Communication coursework taken at UCCS. A one-page admissions form available from the Communication Department and a $60 non-refundable application fee are required.

Fast-Track Admission: This program is designed to offer a more efficient admission process to UCCS undergraduate students who have graduated no more than four years prior to application to the graduate program. Students applying under the fast-track program must submit the following:

- The Fast-Track Admission application form, accurately and completely filled out
- A completed residency form (back of application form), if the student claims instate-tuition eligibility
- A check or money order for the $60 ($75 for international students) non-refundable application fee
- Official transcripts for any university level studies attempted after graduation from UCCS
- A letter of recommendation from the Chairperson of the student's former undergraduate department (non-Communication majors only)
- GRE exam results (for applicants with a cumulative undergraduate GPA below 3.0 only).

Standard Admission: To be considered for standard admission to the MA program in Communication, a student must first meet the general requirements outlined by the Graduate School at UCCS. Applications are evaluated by the Graduate Committee of the Department of Communication.

The committee bases its decision on the following:

- Transcripts from each college or university previously attended (an overall GPA of 3.0 is expected)
- Recent GRE scores (a combined score of at least 1000 on the verbal and quantitative components is expected)
- A statement indicating educational objectives and professional goals
- Four letters of recommendation from instructors or employers
- A sample of scholarly writing.

A $60 ($75 for international students) non-refundable application fee is also required. An application packet can be obtained from the Department of Communication.

Non-Communication majors: Admissions to the Communication-MA program is not limited to those with Communication-related undergraduate majors. Those who have taken little of no communication or social scientific research methods coursework in their undergraduate program will be asked, upon acceptance, to meet the following deficiency prerequisites:

- COMM 210 Public Speaking, an introductory public speaking course, **OR** COMM 510 Advanced Public Speaking as an additional degree requirement
- COMM 250 Research Methods **OR** a basic course in social scientific research methods and MATH 104 College Algebra or a comparable math course
- COMM 400 Rhetorical Dimensions in Communication **OR** a course focusing on classical traditions in communication theory

And one of the following:

- COMM 328 Intercultural Communication
- COMM 344 Leadership Communication
- COMM 420 Persuasion **OR** COMM 425 Advanced Interpersonal Communication **OR** an upper division communication course with a theoretical emphasis

Distributed Studies Program

Students who are working toward a BA degree in LAS may elect a major in a distributed studies program. Distributed studies is perhaps the most misunderstood degree at UCCS. It is not a "general studies" degree with assorted coursework in a variety of subjects. Instead, it is a large major, requiring 60 semester hours, with at least 30 hours in a primary area and the other 30 hours in one or two secondary subjects.

Distributed studies was initiated before minors were offered at UCCS; it served the need of students who wanted a concentration of courses outside the major. Now, many students complete a major and minor rather than a distributed studies degree.

Distributed studies is a degree that is structured out of courses offered by two or more programs of study. There are two approaches to a distributed studies degree: structured programs and programs built from stand-alone minors.

Courses taken as part of a distributed studies major can be counted toward the college area requirements.

Structured Interdisciplinary Program Options

These include options in business economics, justice studies, and public administration. These programs include a standard set of courses and electives. Students should check with department advisors before enrolling.

Distributed Studies major in Business Economics

The Distributed Studies major in Business Economics is offered through the Department of Economics.

Program Description

Economics is both a social science and a business field (or discipline). On many campuses students can choose to major in economics in either the business school or in arts and sciences. However, UCCS students interested in both business and economics must choose between these interests by majoring in economics (LAS) or majoring in business (COB). The distributed studies major in business economics offers students a formal opportunity to pursue both interests.

The Distributed Studies major requires a primary subject area with at least 30 semester hours of course work, of which at least 15 hours must be at the upper division level, and also a secondary subject area with at least 30 hours of course work, of which at least 15 hours must be at the upper division level. Thus, the major requires at least 60 hours of course work total. The Distributed Studies major in Business Economics has as its primary area economics, and as its secondary area business.

The Distributed Studies major in Business Economics closely resembles the regular major in economics, with the required economics and math courses being identical. The only change is a minimum of 30 required hours in economics for the DS major in business economics, rather than the 36 hours required for the economics major.

In the secondary area of business, DS students complete courses that fit both with their interests in business economics as well as with the nature of many of the employment opportunities for them, i.e., in the financial sectors of the economy.

Students choosing a Distributed Studies major in Business Economics enroll in the College of Letters, Arts, and Sciences.

Primary Area: Economics Requirements

(30 Hours)

General Requirements:

- A minimum of 30 hours in Economics courses, of which at least 18 hours numbered 300 and above.
- MATH 111 Topics in Linear Algebra and either MATH 112 Calculus for Business and Economics OR MATH 135 Calculus I.

These requirements should be completed before taking any upper division economics courses.

Economics Requirements:

- ECON 101 Introduction to Microeconomics
- ECON 202 Introduction to Macroeconomics
- ECON 281 Introduction to Economic Statistics & Quantitative Methods (Students may substitute Quan 201 Business Statistics for this requirement).
- ECON 301 Intermediate Microeconomics
- ECON 302 Introduction to Macroeconomics

Each of these five required courses should be completed before the beginning of the senior year.

Economics Electives:

- Any five additional upper division courses in Economics

Recommendations

It is recommended students take at least one 400 level economics course.

Additionally, it is recommended to concentrate in one of the following areas:

- International Economics (ECON 341 International Economics and Econ 441 Advanced International Economics) OR
- Economics of Government (ECON 321 Economics of the Public Sector I and ECON 421 Economics of the Public Sector II)

Secondary Area: Business Requirements
(30 Hours)

Required Courses

- ACCT 201 Introduction to Financial Accounting
- ACCT 202 Introduction to Managerial Accounting
- FNCE 305 Basic Finance
- FNCE 400 Advanced Corporate Finance
- FNCE 410 Cases and Concepts in Finance

And choose five courses from the following:

- ACCT 301 Intermediate Accounting
- BLAW 200 Business Law
- FNCE 420 Investment and Portfolio Management
- FNCE 430 Bank Management
- FNCE 440 International Financial Management
- FNCE 450 Money and Banking
- MK 300 Principles of Marketing
- MK 330 Marketing Research
- MK 480 Marketing Policies and Strategies
- ORMG 330 Introduction to Management and Organization
- ORMG 335 Groups and Teams in Organizations

Distributed Studies Major in Justice Studies
The DS program in Justice Studies promotes a curriculum in the broad area of studies in legal and social justice. The program is administered by the departments of Philosophy, Political Science, and Sociology. The program requires a total of 60 semester hours to be selected from the primary and secondary areas described below.

Primary Area: Legal and Justice Studies

Part I. Core Courses (30 hours)

This area of study provides breadth of content and general learning within the academic disciplines which are generally acknowledged as most basic to understanding law, society, and legal institutions and culture.

Thirty hours of credit must be selected from the following list of courses, **including at least one course selected in at least four different disciplines.**

- BLAW 200 Business Law
- COMM 210 Public Speaking
- COMM 420 Persuasion
- PHIL 112 Critical Thinking
- PHIL 115 Ethics in the Professions
- PHIL 320 Politics and the Law
- PHIL 426 Philosophy of Law
- P SC 435 Environmental Policies & Administration
- P SC 446 Administrative Law
- P SC 447 Introduction to Constitutional Law
- P SC 448 Constitution & Individual Rights
- P SC 449 The Judicial System
- PSY 394 Psychology & the Law
- PSY 395 Applied Psychology
- PSY 444 Drugs & Behavior
- SOC 250 Social Problems
- SOC 340 Criminology
- SOC 341 Sociology of Law
- SOC 496 Juvenile Delinquency

Secondary Area: Legal and Justice Studies

Part II. Analysis, Application, and Work Force Preparation
(15 hours: Secondary Subject)

Courses within this portion of the secondary area provide skills of analysis and evaluation which both promote understanding of the law in action as well as provide an opportunity to apply these skills in the criminal justice setting in the community.

Students must select a minimum of six hours each from Parts A & B, for a total minimum of 15 hours in this broad area.

Part A: Analysis and Evaluation (minimum of six hours)

- One course in social research methods:

Examples are COMM 250, P SC 250, PSY 211, SOC 212, GES 305, and GES 405.

- One course in Social Statistics:

Examples are ANTH 300, COMM 451, ECON 281, PSY 210, and SOC 317.

Part B: Pre-Professional and Work Force Preparation (minimum of six hours)

Prerequisites: Senior standing and progress toward completed major.

- SOC 357 Field Experience in Sociology
- P SC 948 Pre Law Internship

Part III. Disciplinary Emphasis Area
(15 hours: Secondary Subject)

In consultation with the advisor, students must select a minimum of 15 hours which comprise an academically integrated area of emphasis related to justice studies. Although there is much discretion in how this area of emphasis is created, three general approaches can be suggested:

- Select an additional 15 hours of credit from any one discipline
- Select 15 hours from those recommended for existing interdisciplinary studies programs, such as Ethnic Studies, Environmental Studies, Women's Studies, etc.
- Create an "individualized" course of study which will promote understanding of a specific area of justice studies, i.e., business crime, hate crimes, environmental crime, cross cultural/comparative approaches, jurisprudence, deviance, crimes and corrections, etc.

Distributed Studies Major in Public Administration

Students taking a Distributed Studies major in Public Administration must complete 45 semester hours of required courses (or suitable substitutes) as follows:

Required Courses (45 hours)

ECON 101 Introduction to Microeconomics 3
ECON 421 Economics of the Public Sector and Fiscal Policy. 3
ECON 422 Economics of Federalism 3
ECON 423 Public Expenditures Evaluation and Policy Analysis 3
ECON 425 Urban Economics 3
P SC 110 The American Political System 3
P SC 404 Political Interest Groups 3
P SC 407 Urban Politics 3
P SC 432 Public Administration 3
P SC 446 Administrative Law. 3
SOC 111 Introduction to Sociology 3
SOC 212 Introduction to Social Research. 3
SOC 317 Statistics 3
SOC 322 Urban Sociology 3
SOC 431 Social Inequalities 3

Required Primary Subject Courses

Additionally, students must choose, with advice and consent of the chair of the Public Administration Program, an additional 15 semester hours of coursework in a primary subject field so that a total of 30 semester hours is accumulated in one primary subject (either economics, political science or sociology).

Recommended Courses

In addition to the above requirements, it is highly recommended that Public Administration students also take as many of the following courses as possible:
ACCT 200-3 Introduction to Financial Accounting
COMM 102-3 Interpersonal Communication
COMM 365-3 Mass Media and Society
COMM 424-3 Advanced Organizational Communication
MATH 104-3 College Algebra
PSY 100-4 General Psychology
PSY 340-3 Social Psychology
SOC 435-3 Formal Organization

Individualized Distributed Studies Built on Stand-alone Minors

Students may design a distributed studies major around a core curriculum provided by the following stand-alone minors:

Energy Science
Ethnic Studies
French
German
Leadership Studies
Pre-Law
Professional Writing
Sustainable Development
Women's Studies

In this Distributed Studies option, a stand-alone minor becomes the primary curriculum for the degree. Because a minor requires 18 credit hours, the student must negotiate the remaining 12 hours of primary subject with the director of the minor program. At least 15 hours must be from upper division courses. No more that 8 credit hours of independent study can be applied to the primary area of concentration.

The student, in consultation with the director of the primary subject, then selects a secondary subject area in which he or she completes 30 credit hours (these cannot include credit hours taken to complete the primary subject requirement). The secondary concentration will consist of 30 credit hours in one discipline, or 30 credit hours divided between two disciplines (15 and 15, or 18 and 12).

The degree requires 60 total credit hours, and students must maintain a 2.0 grade point average in all course work included in the program.

Before embarking on such a program of study, a student must negotiate a Distributed Studies contract with the director of the stand-alone minor that will constitute the primary area of the program.

Economics

Faculty

Professors: A. Paul Ballantyne and Daphne Greenwood; ***Professor Emeritus:*** Timothy Tregarthen; ***Associate Professors:*** Dale DeBoer (Chair) and Larry Eubanks; ***Center Director:*** John Brock; ***Instructor:*** Patricia Shaffer.

Economics Advising

All new majors are required to meet with either the department chair (Prof. DeBoer) or the department advisor (Prof. Ballantyne) for general advising concerning economics requirements. Students interested in graduate study in economics should consult with faculty members about recommended courses. Further student information is available in the student resources section of the Department of Economics website (http://web.uccs.edu/ economics/).

Curriculum Planning

There are no prerequisites for 100 level courses. Courses at the 200 and 300 level typically require at least one 100 level prerequisite. Courses at the 400 level typically require a 300 level prerequisite. Students who take courses outside of the College of Letters, Arts, and Sciences in partial fulfillment of department requirements must be aware that these units will count against the 30 allowed units from outside the College of Letters, Arts, and Sciences for graduation.

Economics – Bachelor of Arts, BA

Learning Outcomes

- Students should be able to identify and interpret existing economic literature relevant to an economic issue of interest.
- Students should be able to identify and explain relevant economic theories to an economic issue of interest.
- Students should be able to apply economic theory and evidence to an economic issue of interest.

General Requirements

- A minimum of 36 hours of economics courses, of which at least 18 hours are numbered 300 and above
- All courses completed with a grade of C or better
- Graduating seniors must take the Department of Economics Exit Exam during their final term.

Math Requirements

- MATH 112 Calculus for Business and Economics **OR** MATH 135 Calculus I. This requirement should be completed before taking any upper division economics courses.

Economics Requirements

Each of these required courses should be completed prior to attaining senior class standing.

- Econ 101: Introduction to Microeconomics
- Econ 202: Introduction to Macroeconomics
- Econ 281: Introduction to Economic Statistics and Quantitative Methods OR Quan 201: Business Statistics **OR** Math 310: Statistics for the Sciences **OR** Math 381: Introduction to Probability and Statistics
- Econ 301: Intermediate Microeconomics
- Econ 302: Intermediate Macroeconomics

Economics Electives

Any seven additional courses in economics. Students may take FNCE 440 International Financial Management or FNCE 450 Money and Banking as economics electives.

Recommendations

It is recommended that students take at least one 400 level economics course.

Students who plan to attend graduate school are strongly encouraged to take Math 111: Topics in Linear Algebra, Math 135: Calculus I, Math 381: Introduction to Probability and Statistics, and ECON 401: Advanced Microeconomics.

Options within the Major

Economics and Business

Students interested in integrating the study of economics with a career in business are encouraged to explore the Distributed Studies Major in Business Economics. Requirements for this major are listed under the Distributed Studies section of this *Bulletin*.

Economics and Government

Students interested in integrating economics with a career in the public sector should consider a double major with political science. Additionally they should complete the concentration in the Economics of Public Sector: ECON 321 and 421.

The Economics Minor

The minor in economics requires the completion of 18 hours in economics. This work must include ECON 101, ECON 202 either ECON 301 or 302. Nine additional units at the 300 level are required. Students in the College of Business are encouraged to minor in economics, which already includes ECON 101 and ECON 202 as part of the core business curriculum.

Energy Science

Faculty

Professors: James Burkhart (Program Director) and Tom Huber; ***Associate Professor:*** Paul Grogger; ***Senior Instructor:*** Daryl Prigmore

The Energy Science program is intended to be taken as a minor with various technical and non-technical degrees. Energy Science courses are also intended to supplement degree programs including but not limited to physics, geography, geology, engineering and economics. Interested students are urged to discuss the program with their major advisors.

The energy science program is designed to prepare students for careers in energy fields. Specifically, courses are offered in energy science, solar energy, wind energy, nuclear energy, and related fields such as remote sensing and climatology.

Depending on a student's background and interest, a minor may be obtained which requires knowledge of calculus or courses may be selected to provide a less mathematical minor.

Energy Science Minor – General Requirements

The combination of required courses and electives must total a minimum of 18 credit hours, of which at least nine credit hours must be upper division.

Energy Science Minor - Required Courses

- Either ENSC 150 or 151
- ENSC 250
- ENSC 160
- ENSC 162

Energy Science Minor - Elective Courses

Students must select additional courses from the following list of electives:

PES 213 General Physics III 3
PES 313 Modern Physics 3
PES 317 Instrumentation Lab I. 2
PES 318 Instrumentation Lab II 2
PES 341 Thermodynamics and Statistical Mech 3
ENSC/PES 361 Solar Energy Design 3
ENSC/PES 365 Nuclear Physics and Energy 3
ENSC/PES 367 Alternative Energy Sources 3
ENSC/PES 460 Advanced Solar Energy 3
ENSC/GEOL 312 Structural Geology I 5
ENSC/GES 320 Practical Meteorology 4
ENSC/GES 406 Introduction to Remote Sensing 4
ENSC/GES 409 Advanced Remote Sensing. 4

English

Faculty

Professors: Professors: Thomas J. Napierkowski, C. Kenneth Pellow, Joan Ray, Jeffrey Rubin-Dorsky; ***Associate Professors:*** Lesley Ginsberg, Rebecca Laroche, and Susan Taylor (Chair); ***Assistant Professors:*** Debra Dew (Director of Writing Program), K. Alex Ilyasova (Director of Professional/ Technical Writing), Kirsten Bartholomew Ortega; ***Senior Instructors:*** Carey Harrington, Kathleen Johnson, Cecile Malek; ***Instructors:*** Cheryl Birkelo, Carlann Colman, Julianna Frost, Tony Friedhoff, Keri Hemenway, Christine Hubbell, Allegra Johnston, Alan Miller, Julie Mullebrouek, William Myers, Sharleen Pisciotta, David Shults, Meghan Tifft, Sarah Treschl, Tamra Wilson, and Julie Wheeler.

English Department Academic Policies

Levels of Courses

Ordinarily, 100 level courses are taken prior to 200 level courses, and so on. Unless otherwise indicated, courses have general prerequisites as follows: for 200 level courses, 24 prior college credits; for 300 level courses, 30 college credits; for 400 level courses, 45 college credits.

Prerequisite for All English Courses

Students must fulfill the ENGL 131 requirement prior to taking any other English course beyond 131. For English majors, ENGL 190 is a prerequisite for all other literature courses offered through the Department of English. For non-majors, ENGL 150 is a prerequisite for all other literature courses.

Graduate Course Offerings

In general, courses numbered 400 may also be taken for graduate credit as a 500 numbered course. See instructor for details. Courses numbered 500 and 600 are for graduate students only.

Honors at Graduation

To graduate with departmental honors in English, a student must compile a 3.75 grade point average in the major; compile a 3.5 grade point average overall; and receive a grade of "Outstanding" on the senior comprehensive exam. If a student has met 2 of the 3 criteria and desires to apply for honors, he or she may appeal to the English faculty by submitting to the English department chair a writing portfolio of 20 pages of writing from upper division literature courses, as well as from ENGL 483, taken at this campus for the faculty to review.

English – Bachelor of Arts, BA

Learning Outcomes

- Have knowledge of the world in which we live, some of the cultures which have shaped that world, and the behavior of the people who inhabit it through the study of British and American literature
- Display capacities for and skills to express rational and logical thought clearly and effectively, including the following:

  Be able to write cogent, clear, coherent, thoughtful, and "mechanically" correct essays of literary analysis

  Be able to express thoughtful and grammatically sound literary analyses orally

  Be prepared for a variety of careers with skills in

close reading, critical writing, logical analysis, and well-reasoned discussion

General Requirements

- 39-54 hours of English courses
- Pass the senior comprehensive essay exam prior to graduating
- No course will count toward the major if the grade is below C-

Course Requirements

- ENGL 131 and 141 (These courses are not counted, however, toward the major requirement of 39 hours, minimum, of English courses.)
- ENGL 190, Intro to Literary Studies (prerequisite to all other literature courses).
- ENGL 251, ENGL 252, ENGL 253, and ENGL 254 (may be taken in any order / British literature)
- ENGL 300 (Literary Criticism
- ENGL 338 and ENGL 339 (may be taken in any order/American literature)
- ENGL 395 (Chaucer)
- Either ENGL 397 or ENGL 398 (Shakespeare)
- One 400-level course in literature (excludes ENGL 483, ENGL 485, or any other non-literature 400- level course)

Finally, students who wish to apply a correspondence course towards their English major must secure written permission of the English department chair.

Students Who Contemplate Teaching

Statements of curriculum requirements for a Colorado teaching certificate in English may be obtained from the College of Education. Students planning to teach should also confer with a member of the College of Education faculty about the Teacher Education Program. Since requirements for Education and English make a very tight schedule, students should be fully informed as to both departmental and certification requirements by the beginning of the sophomore year.

BA in English with Elementary School Emphasis

Students wishing to major in English to prepare for careers in elementary school teaching take a minimum of 30 hours of English, including the following specific requirements:

- ENGL 131 and 141 (These courses are not counted, however, toward the major requirement of 30 hours minimum, of English courses.)
- ENGL 190 Introduction to Literary Studies (designed for English majors and a prerequisite to all other literature courses offered by the department)
- Either ENGL 251 or ENGL 252 (British literature)
- Either ENGL 253 or ENGL 254 (British literature)
- Either ENGL 260 or ENGL 261 (World/Global literature)
- ENGL 301 (Advanced Composition)
- ENGL 311 (Advanced Grammar)
- ENGL 338 and ENGL 339 (may be taken in any order / American literature)
- Either ENGL 320, or ENGL 346 or ENGL 355, or ENGL 360, or ENGL 486 (Each of these courses deals with ethnicity and/or gender.)
- Either ENGL 395, or ENGL 397, or ENGL 398 (Chaucer / Shakespeare)

All English majors, including students in English elementary teaching, are required to pass the senior comprehensive essay exam prior to graduating. No course will count toward the major if the grade is below C-. Finally, students who wish to apply a correspondence course towards their English major must secure written permission of the English department chair.

BA in English with Secondary School Emphasis

Students wishing to major in English to prepare for careers as secondary school teachers of English must take a minimum of 39 hours of English, including the following specific requirements:

- ENGL 131 and 141 (These courses are not counted, however, toward the major requirement of 39 hours, minimum, of English courses.)
- ENGL 190 Introduction to Literary Studies (designed for English majors and a prerequisite to all other literature courses offered by the department)
- Either ENGL 251 or ENGL 252 (British literature)
- Either ENGL 253 or ENGL 254 (British literature)
- Either ENGL 260 or ENGL 261 (World/Global literature)
- ENGL 300 (Literary Criticism)
- ENGL 338 and ENGL 339 (may be taken in any order / American literature)
- Either ENGL 320, or ENGL 346, or ENGL 355, or ENGL 360 or ENGL 486 (Each of these courses deals with ethnicity and/or gender.)
- Either ENGL 395, or ENGL 397, or ENGL 398 (Chaucer / Shakespeare)
- ENGL 301 and ENGL 483 (advanced writing courses)
- ENGL 311 and ENGL 485 (grammar and language courses)

All English majors, including students in English secondary school teaching, are required to pass the senior comprehensive essay exam prior to graduating. No course will count toward the major if the grade is below C-. Finally, students who wish to apply a correspondence course

towards their English major must secure written permission of the English department chair.

BA in English – Transfer Students

Transfer students pursuing a major in English are required to complete a minimum of nine credit hours in the UCCS Department of English, three of which must be a 400 level seminar in literature.

The Minor in English

To complete a minor in English, a total of 21 credit hours is required. A student must pass (with a grade of C- or better) each of the following courses:

- ENGL 190 Introduction to Literary Studies (a prerequisite to all other literature courses designed for English majors)
- ENGL 251 or 252 Survey of British Literature I or II
- ENGL 253 or 254 Survey of British Literature III or IV
- ENGL 338 or 339 Survey of American Literature I or II
- Either ENGL 395, 397, or 398 Chaucer, Shakespeare I or Shakespeare II
- ENGL 300 Literary Criticism
- any 400 level Seminar in Literature.

The Professional Writing Program

The Professional Writing Program, housed in the Department of English, is intended for those individuals who wish to pursue writing-related careers in business and industry. The program provides students with an excellent opportunity to enhance their credentials and career marketability. In addition, the program makes available to those already involved in writing for business and industry the opportunity to further develop professional skills important to their careers.

Learning Outcomes, Professional Writing:

- Understand the basic nature of language, its structure, its uses, and its rhetorical power
- Write competently and efficiently in a range of rhetorical genres to multiple audiences for various purposes
- Communicate technical information effectively and purposefully, both in print and online documents
- Implement effective documents design, both in print and online work
- Organize documents coherently
- Demonstrate knowledge of proper editing skills
- Control the conventions of standard written English

Research:

- Command effective research skills, both in print and non-print sources
- Understand and implement usability testing in documents.
- Demonstrate competency in interviewing subject matter experts.

Oral Presentation:

- Demonstrate effective oral and presentation skill

Teamwork:

- Communicate and work effectively in a team

Technology Skills:

- Demonstrate use of computer technologies in written, oral, and visual communication
- Demonstrate an understanding of the influence of technology in contemporary culture

Minor/Emphasis/Certificate

English majors may select an emphasis in professional writing. Besides completing 18 credits in professional writing courses, English majors choosing the emphasis also take ENGL 190, 251, 252, 253, 254, 338, 339, Chaucer (395) or Shakespeare (397 or 398), and any 400-level Senior Seminar in literature.

Non English majors in the College of Letters, Arts, and Sciences, and students in the College of Business and the College of Engineering and Applied Science may select a minor in professional writing.

Unclassified students and students with a baccalaureate degree may select a certificate in professional writing.

Curriculum Requirements

To complete the program, students complete 18 credit hours with a C or better from among the following courses:

ENGL 301 Advanced Composition 3
ENGL 307-3 Administrative and Business Writing OR
ENGL 309-3 Technical Writing and Presentation 3
ENGL 311 Advanced Grammar 3
ENGL 312 Technical Editing and Style 3
ENGL 313 Designing Documents for Business and Industry 3
ENGL 314 Managing Writing Projects for Business and Industry 3
ENGL 315 Professional Writing Internship. 1-3
ENGL 316 Tools for Technical Writers 3
ENGL 375 Grant & Proposal Writing 3
ENGL 385 Advanced Topics in Professional Writing . . . 3

Prerequisites for Professional Writing Program

ENGL 131 or equivalent transfer credit or a baccalaureate (for ENGL 301, ENGL 141 is also a prerequisite). Students must complete 9 credits in the program to enroll in ENGL 315.

Upon approval from the program director, 3 credits may be applied towards completion of the program from among the following courses in other departments: INFS

380, VA 210, CS 107, JOUR 290 and ENGL 480. Students cannot apply one of these courses both to the program and to another requirement they may need to fulfill.

The Writing Program

Any student who wishes to take ENGL 099, ENGL 131 or ENGL 141 must meet the following placement requirements:

ENGL 099: Students may enroll without having an ACT or SAT score. Placement criteria: ACT of 18 or below, SAT of 449 or below. Contact LAS Extended Studies, Columbine 2024, (719) 262-4071, to enroll in ENGL 099.

ENGL 131: To be admitted to ENGL 131, students must meet one of the following requirements:

- Score 19-28 on the English ACT
- Score 450-640 on the English SAT
- Complete ENGL 099 or an equivalent course completed elsewhere (credit not counted toward graduation)

Students without ACT or SAT scores must submit a writing sample to the Writing Program, Columbine 1041 for placement purposes.

ENGL 141: To be admitted to ENGL 141, students must meet one of the following requirements:

- Complete ENGL 131 at UCCS
- Score 29+ on the English ACT
- Score 650+ on the English SAT
- Score a 4 on the CEEB Advanced Placement English Language and Composition Exam
- Score a 5 on the IB English Examination.
- Successfully complete a first-semester composition course (equivalent to ENGL 131) at an accredited college or university with a C- or better
- Score 67% and receive a pass on the essay portion of the CLEP Freshman College Composition with essay examination to earn credit for ENGL 131
- Score 67% on the multiple choice section and receive a pass on the essay portion of the CLEP English Composition with essay exam to earn ENGL 141 placement, without credit for ENGL 131

For additional information on required courses and the writing portfolio assessment, refer to "Writing Competency Requirement," in this *Bulletin*. For other questions concerning placement criteria, contact the writing program at (719) 262-4038 or (719) 262-4040.

Ethnic Studies

Ethnic Studies is located in Columbine Hall, Room 1024, (719) 262-4553. Advisors for the Program are Andrea Herrera (EST) and Abby Ferber (SOC/WMST).

Faculty

Professor: Andrea Herrera, Director; ***Instructor:*** Dena Samuels.

The Ethnic Studies program was established in 1995 as an interdisciplinary program leading to a minor. Courses offered through the Program focus primarily on the experiences and cultural expressions of the four main ethnic minority communities in the United States: African Americans, Native Americans, Asian Americans, and Latinos/Hispanics. These experiences and cultural expressions include, but are not limited to, economic, political, legal, historical and cultural dimensions of life in the United States. An important goal of the program is to build on the knowledge grounded in the experiences of racial/ethnic groups that have been marginalized and excluded from full participation in society. The Program also promotes curricular and faculty development and sponsors a variety of cultural programming.

Ethnic Studies Minor

Students may earn a minor degree in Ethnic Studies or include Ethnic Studies as part of a Distributed Studies degree. The purpose of courses in Ethnic Studies is to synthesize knowledge representing primarily ethnic minority perspectives. Ethnic Studies also provides students a forum for exploring the realities of their own experiences and discussing those realities in a systematic, informed and respectful manner. Courses are designed to facilitate this exploration process in a supportive context and empower students to live their own cultures, and view others' cultures in a new and positive light.

Learning Outcomes

- Examining knowledge from specific U.S. racial/ethnic minority perspectives
- Examining relationships among racial/ethnic groups and the nature or basis of racial/ethnic formation, and its intersections with class, gender and sexuality
- Developing competencies from working with people of different racial/ethnic backgrounds and fostering an appreciation of ethnic diversity
- De-centering Euro-centric knowledge constructions
- Students should demonstrate a measurable increase in their knowledge of major theories and concepts in Ethnic Studies (EST)
- Students should be able to connect their comparative and relational knowledge of main current and guiding principles in EST to African American studies, Latino/Hispanic studies, Asian American studies, and Native American studies.
- Students should possess knowledge of phases in the development of ethnic minority consciousness and the formation of cultural identity in general, and racial, gender, class identity in particular.
- Students should develop a knowledge of the rapidly increasing scholarship about U.S. minority

groups that focuses on the private and public lives of ethnic minority people, their historical, literary and artistic contributions, their social, political, and economic conditions, and the relations of ethnic minority groups not only to each other, but also to the dominant power structures in U.S. society in terms of gender, class and race, and sexuality

- Students should be able to synthesize personal reality with the larger ethnic minority groups realities through theoretical and practical knowledge gained in EST courses.

General Requirements for the Minor

The minor may be earned by students enrolled in any undergraduate program at UCCS. Students must take at least 18 semester hours of designated Ethnic Studies courses for the minor. EST 200 (Introduction to Ethnic Studies) **OR** EST 201 (Introduction to Race and Gender) is the only required course for the minor; it is strongly recommended that either EST 200 or EST 201 be taken before any other EST coursework is completed. (Students will be allowed to take only one of these two courses in order to fulfill the core requirement for the Program).

Overall, 12 of the 18 hours earned for the minor must be through upper division courses. A minimum grade of C (2.0) must be received for any course counted toward the minor. Courses taken on a pass/fail basis will not be accepted. Transfer credits are limited to 9 hours and must be approved by the Program Director. Students may count up to three courses (nine credits) toward both the Ethnic Studies minor and their majors.

Students are strongly encouraged to consider taking EST 366 Service and Learning Internship, a three-credit upper division course that provides students the opportunity to put into practice the theoretical knowledge gained in EST through campus placements and placements with community based organizations and programs.

Exit Focus Group: During the fall semester of senior year, each student is required to participate in an exit focus group. This is a mandatory meeting to discuss students' understanding and mastery of material presented in the Program.

Required Courses

EST 200 Introduction to Ethnic Studies **OR** EST 201 Introduction to Race and Gender . . . 3

Elective Courses for the Minor

The remaining 15 credit hours may be chosen from the courses listed below.(All courses listed below are cross-listed with Ethnic Studies.)

ANTH 325 The Prehistory and History of Native-American Cultures of the Southwest . . . 3
ANTH 342 North American Indians . . . 3
ANTH 440 Indigenous Peoples and Cultures of the Southwest . . . 3
A H 343 African-American Art . . . 3
ENGL 346 Race, Writing and Difference: Contemporary American Literature . . . 3
ENGL 355 Native-American Literature . . . 3
ENGL 360 African-American Literature . . . 3
ENGL 483/583 Rhetoric and Writing: Multicultural American Rhetorics . . . 3
EST 290 Special Topics . . . 3
EST 300 Race and Gender at the Movies . . . 3
EST 310 Women of Color: Image and Voice . . . 3
EST 366 Service and Learning Internship . . . 3
EST 390 Special Topics . . . 1-3
EST 401 Special Topics . . . 3
EST 940 Independent Study in Ethnic Studies . . . 1-3
HIST 350 Chicana/o History: Pre-Columbian to 1910 . . . 3
HIST 351 Chicana/o History since 1910 . . . 3
HIST 352 History of Latina/os in the U.S. . . . 3
HIST 358 Immigrant Histories . . . 3
HIST 372 From Slavery to Freedom: The African-American Experience, 1607-1877 . . . 3
HIST 373 Vision and History in Native-American and African-American Narratives . . . 3
HIST 374 African-American Social and Political Thought, 1790-1980 . . . 3
HIST 471 Asian-American History
MUS 205 Jazz History . . . 3
PHIL 363 Gender and Race in Biblical Literature . . . 3
P SC 305 Race and Ethnicity in American Politics . . . 3
SOC 323 The Chicana/o Community
SOC 324 The African-American Community . . . 3
SOC 329 Perspectives on Race and Ethnic Relations . . . 3
SPAN 442 U.S. Latino/Hispanic Literature
SPAN 443 U.S. Latina/o Drama . . . 3
SPAN 444 Hispanic, Chicana/o, and Mexican-American Literature . . . 3
SPAN 445 U.S. Cuban Literature . . . 3
THTR 211 Introduction to Teatro Chicano/a . . . 3

Film

For information on Film Studies, see Visual and Performing Arts (VAPA)

Gallery Practice

For information on Gallery Practice Studies, see Visual and Performing Arts

Geography and Environmental Studies

Faculty

Professors: Eve Gruntfest, Tom Huber and Robert Larkin (Chair); ***Professor Emerita:*** Jacquelyn Beyer; ***Associate Professors:*** John Harner and Steven Jennings; ***Assistant Professors:*** Hillary Hamann, Curt Holder, and Emily Skop; ***Senior Instructor:*** Carole Huber; ***Instructor:*** Michael Larkin.

Advising

For more information, please see the GES departmental web page at http://www.uccs.edu/geogenvs. For graduate information, follow the MA program links, or contact John Harner, Graduate Director at (719) 262-4054, email jharner@uccs.edu, or Beverly Rogacki, (719) 262-4065.

Geography and Environmental Studies – Bachelor of Arts, BA

Learning Outcomes

- Demonstrate an understanding of the general configuration and processes associated with the earth's landforms.
- Demonstrate a general knowledge of the variety and processes of human geography that are reflected in various cultures.
- Demonstrate an understanding of the methods of analysis used to solve geographic problems.

Major Requirements

The Bachelor of Arts (BA) in geography requires the four introductory classes (GES 100, 101, 198, and 199) plus 16 hours of upper-division coursework. The upper-division coursework must include at least one of the tools courses, GES 305, 400, 406, or 411. (NOTE: GES 105 will not count as credit towards this tools requirement). A maximum of 54 credit hours may be taken by a major in GES. All students must take an exit exam before graduation, and have a C or above grade in all GES courses.

Minor in Geography and Environmental Studies

A minor requires a total of 18 credit hours of GES courses; at least nine of these must be at the upper-division level. A student pursuing a minor must take GES 100 or 101, GES 199 or 198, and a tools course (GES 305, 400, 406, or 411).

Teaching Option

A GES degree option is available for elementary and special education teachers. Please contact the Student Success Center or the College of Education for further information.

Applied Geography – Master of Arts, MA

The Department of Geography and Environmental Studies offers a Master of Arts in Applied Geography. The goal of the program is to provide graduate level education that enables students to address community concerns through applied geographic research. Graduates with an MA in applied geography will have integrative skills that link human activity to natural systems, and that apply a spatial perspective to human and natural processes. Areas of emphasis are:

- Physical systems, including geomorphic, climatic, biologic, and hydrologic processes
- Nature-society interactions
- Population and society, including urban community development
- Applied uses of Geographic Information Systems (GIS) and remote sensing

Learning Outcomes

The MA provides students with specific scientific and communication skills necessary to be community leaders in their area of expertise. Graduates of this MA program will have the following skills and competencies to work on community issues:

- An understanding of and appreciation for the interactions between the human and natural world
- Skills to synthesize, analyze, and evaluate diverse social and physical information
- Ability to conceptualize spatial relationships for problem solving
- Communication skills to clearly present solutions or recommendations

MA, Applied Geography Admission Requirements

The following are minimum standards for admission of students to the MA in applied geography degree program:

- Hold a baccalaureate degree or a master's degree from an accredited college or university, or demonstrate completion of work equivalent to the baccalaureate or master's degree given at this university
- Have an undergraduate grade point average of 3.0 or better ("A" is equal to 4.0).

Application Process

- Complete the GRE general test. There is no threshold for acceptance, scores are combined with other criteria to evaluate applications. A minimum combined score for the verbal and quantitative sections of the exam of 1000 is recommended.
- Provide 3 letters of recommendation.
- Provide two copies of official transcripts from all institutions attended.

Program Requirements

Thesis or Non-Thesis

Students may complete either a thesis option or a non-thesis option for the MA in Applied Geography. The department strongly encourages students to fulfill the thesis option. The thesis option consists of 24 credits of coursework and 6 credits of thesis. The non-thesis option consists of 30 credits of coursework plus a research paper and comprehensive exam.

Required Courses

All students must take GES 577: History and Nature of Geography during their first fall semester, then GES 501: Seminar in Geographic Research during the following spring semester.

Prerequisites
All entering graduate students are required to have the kind of knowledge presented in the department's introductory courses in physical geography (GES 100 Environmental Systems/Climate and Vegetation and GES 101 Environmental Systems/Landforms and Soils) and human geography (GES 198 World Regional Geography and GES 199 Human Geography). It is the responsibility of the student to obtain this knowledge.

Students may gain the required knowledge by formally taking the introductory courses, by auditing the courses, by reading the textbooks or by any other means. This knowledge will enhance the student's ability to perform at the level expected in the GES 501 research seminar. Students will work with their advisors to determine the appropriate action needed to fulfill the prerequisites. Students are encouraged to have some background in college math, statistics, and computer skills.

Geology Program

Faculty

Associate Professor: Paul Grogger; ***Instructor:*** George Bolling.

Geology courses offer a unique opportunity for students. Credits earned in geology will count toward requirements for a degree in Letters, Arts and Sciences as electives. Courses are listed which have been offered in the past. Selected courses will be offered each semester.

Gerontology

Advising

For further information about the Gerontology Center or the minor or certificate in gerontology, contact the Gerontology Center, Columbine Hall, Room 4028, (719) 262-4179, geron@uccs.edu.

Minor and Certificate in Gerontology

A minor and an academic certificate in Gerontology may be obtained through the College of Letters, Arts, and Sciences. Offered by the Gerontology Center, this program provides students and practitioners with knowledge and skills necessary for work in the aging field. The minor and certificate in Gerontology may be pursued by students enrolled in any undergraduate program. The certificate is also available to students in other colleges, and to individuals possessing a baccalaureate degree. The core courses for the Gerontology minor are available in on-line format.

Learning Outcomes

- Students will gain an understanding of the age structures of diverse populations and the impact of demography on the individual life course, family structures, and social structures.
- Students will be able to identify and analyze changes in psychological, social, and biological domains that occur with increased frequency in later life in order to discriminate between those that are caused by aging and those that are merely correlated with aging.
- Students will be able to apply the research methodologies used to study aging phenomena.
- Students will conduct an interview and analyze the life story of an older adult in the context of historical, developmental, and contextual influences on later life.
- Students will gain a realistic appreciation for older adults, appreciating their contributions but not idealizing them in a stereotypic way.
- Students will synthesize the impact of biological, psychological, and social factors in aging.
- Students will analyze the life context of older adults (e.g., health, housing, and social services) and identify relevant resources for specific needs.

General Requirements for the Minor and Certificate

- Successful completion of at least 21 credit hours of required and elective courses
- A grade point average of at least 2.0 (C) is required; all courses applied to the minor must be completed with a grade of C- or better.
- An individually planned field experience (GRNT 498). This experience will be under the direct supervision of experienced personnel in an approved agency or institution dealing with the special concerns of older persons.

Course Requirements

Required Core Courses:
GRNT 300 Introduction to Gerontology
HSCI 204 Biomedical Aspects of Aging
GRNT 463 Psychology of Aging (Also may be taken as PSY 351)
GRNT 462 Sociology of Aging (Also may be taken as SOC 462)
GRNT 498 Professional Field Experience in Gerontology (3 hours minimum)

Elective Courses:
Select at least two courses from the following
COMM 260 Family Communication
ECON 466 Health Economics
HSCI 474 Aging, Physical Activity and Health
PSY 306 Psychology and Health
PHIL 417 Medical Ethics
PHIL 316 Philosophical Issues in Death and Dying
SOC 467 Sociology of Death and Dying
GRNT 498 Professional Experience in Gerontology
GRNT 940 Independent Study

Other courses that focus on aging may be approved by the Center Director.

History

Faculty

Professors: Paul Harvey, Christopher Hill, Robert Sackett (Chair and Graduate Adviser) and Richard Wunderli; ***Professor Emeritus:*** Norman Bender; ***Associate Professors:*** Bernice Forrest and Harlow Sheidley; ***Assistant Professors:*** Brian Duvick and Christina Jimenez; ***Senior Instructors:*** Janet Myers and Judy Price; ***Instructors:*** Peter Brumlik, Barbara Headle, and Carole Woodall.

History – Bachelor of Arts, BA

Learning Outcomes

- Knowledge: to deepen core knowledge in understanding historical processes, people, and events
- Research: to acquire research skills in locating sources, collecting data, and continuing productive inquiry on historical problems
- Cognition: to develop cognitive skills in making sense of information collected in research on historical questions
- Writing: to hone writing skills in crafting clear, succinct, logical, and persuasive argumentative prose
- Reasoning: to sharpen reasoning skills in following the flow of logic in historical argumentation

General Requirements

The student majoring in History must complete a minimum of 36 (maximum of 54) hours of history courses (of which 21 hours must be upper-division courses; 15 upper-division hours must be taken at the Colorado Springs campus).

Majors may choose any history faculty member as a counselor to advise them on the distribution of their courses.

Majors are required to have a grade of C (not C-) or better in their history courses.

Course Requirements

All History majors must select six hours each from any two of the following four survey sequences:

- Western Civilization (HIST 101, 102, 103, 104)
- American Civilization (HIST 151, 152, 153, 154)
- Latin American Civilization (HIST 140, 141)
- Asian Civilization (HIST 111, 112, 113, 114).

These survey sequences may be waived by the department only on adequate proof that the student has had equivalent education in these fields.

Majors must also take HIST 499 (Senior Thesis) during their junior or senior year.

Double Majors

A student with a double major (history and another major) must complete 30 hours of history courses, meeting the same course and grade requirements as above.

The Minor in History

The minor in history consists of 21 hours of coursework, nine of which must be upper-division courses. At the lower division, students must take 12 hours, six hours each from any two of the following sequences: Western Civilization (HIST 101, 102, 103, 104); American Civilization (HIST 151, 152, 153, 154); Asian Civilization (HIST 111, 112, 113, 114); or Latin American Civilization (HIST 140,141).

Students are required to have a grade of C (not C-) or better in history courses counted toward the minor.

History Option for Teaching

A degree option is available for elementary, secondary and special education teachers. Please contact the Student Success Center or the College of Education for further information.

History — Master of Arts, MA

The Master of Arts (MA) degree in History can be obtained at UCCS. The Department of History processes applications for admission to the program, offers courses required for the MA degree, and administers the final oral examination. See also Requirements for Advanced Degrees and the general requirements of the Graduate School in this *Bulletin*.

The MA student should have a good foundation in history and a sufficient knowledge of the allied humanities and social sciences to afford an adequate background for graduate work. A candidate may be required to correct any apparent deficiencies.

Learning Outcomes

Students with an MA in History will be able to:

- Demonstrate understanding of basic historiography in chosen fields, as evident in the student's portfolio of research papers and performance on oral examination;
- Formulate historical questions
- Devise and apply strategies to research their questions using primary source material
- Answer their questions in the forms of academic writing
- Discuss their understanding and research in oral form.

The following departmental rules with respect to the Master of Arts degree supplement, but in no way supersede, the requirements of the Graduate School of the University of Colorado.

MA Admission

Application Deadlines: All graduate applications must be completed by March 1 for admission for the following fall semester, and by October 15 for admission for the following spring semester.

Exceptions require the approval of the history department graduate faculty committee.

Writing Sample: For purposes of admission to the graduate program, a writing sample will be required.

MA Requirements

General Requirements

- Thirty credit hours are required for the MA in History degree.
- In history courses, no grade lower than B- will count toward the completion of coursework for the Master's degree. Candidates must maintain a grade point average of 3.0 in their graduate courses, or face departmental probation.
- MA candidates are required to pass an oral exam that covers the coursework that they have completed. The oral examination committee will consist of three professors. Candidates will also present, and defend, before the history faculty a portfolio of three papers (submitted in triplicate) that they have written in research seminars. Candidates may have no more than six credit hours of coursework pending at the time they attempt this examination. The examination, for which a student must register, will be given each semester, including summers, at times agreed upon by candidates and the history faculty.
- The department offers to evaluate the academic progress of graduate students after two semesters of coursework, if they request this review. The purpose is to apprise students of their progress in professional training as historians.

Required Coursework

All coursework will be taken within the Department of History, with the possible exception of the elective requirement described below; further exceptions may be granted by the department's graduate faculty and according to Graduate School regulations.

- HIST 600, Historiography (3 credit hours) is required of all graduate students
- Three Readings/Research sequences (see Historical Field Options)
- HIST 960, Independent Study
- Elective course, 3 credit hours

Historical Field Options

Students must take courses from the specific historical fields offered by the history department (see a list of the historical fields below). Seminars in a historical field are offered over two consecutive semesters: "Readings" in a specific field will be offered one semester (with a 600 number); and "research" in the same field will be offered only in the following semester (with a 700 number). A "research" course at the 700-level may not be taken without having completed the prerequisite of the corresponding 600-level "readings" course. "Readings" courses are for 3 credits; "research" courses are for 4 credits. MA students must complete the readings and research in at least three historical fields for a total of 21 credit hours.

No course may be taken twice for credit.

Exceptions to the above requirements require the approval of the history department graduate faculty committee.

Historical fields and their course numbers are as follows:

European History

HIST 611/711 Readings/Research in Medieval European History, c. 300 - 1300 a.d.
HIST 615/715 Readings/Research in The Renaissance and Late Medieval Europe, c. 1300 - c. 1500 a.d.
HIST 622/722 Readings/Research in the Reformation and Counter Reformation, c. 1500 - 1648
HIST 625/725 Readings/Research in the Old Regime, 1648 - 1789
HIST 631/731 Readings/Research in the Age of Revolution, 1789 - 1870
HIST 635/735 Readings/Research in Modern Europe, 1870 - the Present

United States History

HIST 646/746 Readings/Research in Religion and Culture in America, 1500-2000
HIST 655/755 Readings/Research in U.S.: the Birth of a Nation, 1763 - 1815
HIST 661/761 Readings/Research in U.S.: Division and Reunion, 1815 - 1877
HIST 666/766 Readings/Research in U.S.: Emergence of Modern America, 1876 - 1918
HIST 671/771 Readings/Research in U.S.: The Super Power Era, 1918 to Present
HIST 676/776 Readings/Research in U.S.: The Trans-Mississippi West

Asian History

HIST 681/781 Readings/Research in the Indian Subcontinent since 1556
HIST 686/786 Readings/Research in the Pacific Rim since 1600

Latin American History

HIST 679/779 Readings/Research in Latin American History

Any of the above seminars may be offered only once over a period of several years. In order to plan their graduate careers, students should check the history department website at http://web.uccs.edu/-history to find out when specific historical fields will be taught and who will be offering them. Each year the history department usually offers a two semester, readings/research sequence in American History, and a two semester, readings/research sequence in a non-American field.

History 960

Students will also take three credit hours of Independent Study (HIST 960) to prepare for oral exams and presentation of a portfolio of three papers (in triplicate) to the history faculty (See General Requirements above).

Elective Requirement
In addition to History 600, History 960, and the three readings/research sequences, each MA student is to take one elective for three credits. This must be either an extra readings seminar; or, by permission of the history department graduate faculty committee, a 300-or 400-level history department undergraduate course; or, by permission of that committee, a course at the 300-level or higher in another department. Regarding these undergraduate courses, there is no guarantee of availability for any particular course; any prerequisites need to be observed; no course counted for the BA degree may count for the MA credit; and, at the discretion of the instructor, extra assignments could apply to graduate students.

MA, History Sample Course Schedule
Below is a sample schedule for a full-time graduate student who will complete the MA degree in five semesters (including one summer) or two years. This is an ideal case; most students take slightly longer to complete the degree.

First Year

Fall Semester:
HIST 600 Historiography
History 6 Readings in Field #1

Spring Semester:
History 7 Research in Field #1
History 6 Readings in Field #2

Second Year

Fall Semester:
History 7 Research in Field #2
History 6 Readings in Field #3

Spring Semester:
History 7 Research in Field #3 Elective

Summer Semester:
History 960 Independent Study
Oral exam

Humanities

Faculty

Associate Professor: Teresa Meadows, Director

All degree students admitted to the College of Letters, Arts, and Sciences must fulfill three of the twelve hours of humanities area requirements by taking one core humanities course (three hours) under the departmental heading "Humanities" (HUM). Students may take a second core humanities in order to satisfy three credit hours of the LAS general education humanities requirement. Humanities courses are upper-level and, as such, presume students have senior or junior status and have completed the writing requirement.

The core humanities courses are multi-disciplinary courses that combine the study of literature, history, art and music history, and philosophy, emphasizing the interaction of these fields with social, political, economic, and scientific/technological events. The class format combines lectures, group discussions, slide presentations, guest panels, dramatic performances, and musical recitals. Faculty from the various humanities-related departments join together in teaching the courses to provide students a solid overview of humanities disciplines.

The core humanities courses study the various humanities disciplines by focusing on a specific year or on a specific topic, some with a traditional and some with a non-traditional influence.

All HUM course descriptions that appear within this *Bulletin* are "samples" of previously offered or designed courses and therefore are non-binding; there is no guarantee that these specific topics will be offered. Since different faculty members may teach in different semesters, they are accustomed to designing courses in light of the interests and expertise of those teaching on a given team.

Each of the HUM courses in any given semester's course schedule fulfills the LAS core humanities requirement (3 hours) of the general humanities area requirement (12 hours). Check the *Schedule of Courses* each semester for additional Humanities courses that may have been developed by the faculty.

Interdepartmental Studies

Faculty

Professors: James Burkhart and Alexander Soifer

Interdepartmental studies offers a unique opportunity for students to experience courses which cover several disciplines. The interdepartmental studies program offers a minor in mathematics as a liberal art (see mathematics.)

Interdepartmental credits earned will count toward a degree in Letters, Arts and Sciences as electives. Students wishing to use ID credits in other colleges should consult with the academic advisors of their respective colleges.

Selected courses will be offered each semester.

Languages and Cultures

Faculty

Professors Emeritus: John Miller and Inez Dolz-Blackburn; ***Professor:*** Robert von Dassanowsky; ***Associate Professor:*** Teresa Meadows (Chair); ***Assistant Professors:*** Edgar Cota-Torres, Fernando Feliu-Moggi and Maria Steen; ***Senior Instructors:*** Margaret Mistry Blanca Glisson, Maria Goni; ***Instructors:*** Suzanne Cook, Carmen Frank, Maura Rainey and Ilse Stratton.

The University of Colorado considers the study of languages an essential part of a sound liberal education. Competence in a language other than English not only promotes international understanding and communication, but also increases students' career opportunities in commerce

and finance, diplomacy, library science, education, social work, publishing, communication, scientific and technical research, and the arts. It also prepares them for graduate school, which normally requires proficiency in at least one foreign language. Students might consider taking language classes as excellent complements to their major. Consult the Distributed Studies section of this *Bulletin*; French, German, or Spanish can be used as part of a Distributed Studies degree.

Courses of Study Offered

The department offers a BA degree in Spanish and minor concentrations in French, German, and Spanish. Basic courses are also offered in American Sign Language, Greek, Italian, Japanese, Latin and Russian. Students desiring to major in French and German may do so through a Distributed Studies major or by completing requirements for the major in French or German at the Boulder campus, by approval of the appropriate Boulder department.

Language courses at the 100 level introduce students to essentials of grammar, reading, oral fluency, and aural comprehension, as well as to a general understanding of the cultural context. Courses at the 300 and 400 levels are taught almost exclusively in the language.

Foreign culture studies courses are designed to give students the opportunity to explore different facets of foreign culture, film, and literature in courses, including on-site experiences.

Study Abroad

The department strongly recommends that all majors and minors include study in a setting where the language of concentration is spoken. Credit earned will normally count toward satisfaction of the major/minor requirements, but the student must see the department chair before enrolling in an external study program to assure full transfer of credit. Selected programs are also available through the Office of International Education, Boulder and Denver.

Spanish – Bachelor of Arts, BA

In the United States, Spanish is fast becoming second to English in usage. A language of practical utility, great literature (Don Quixote), and wide applicability (in North, Central, and South America, as well as in Europe), Spanish is becoming a necessary skill for dealing with today's world.

Teaching Option

A degree option is available for elementary, secondary and special education teachers. Please contact the Student Success Center for further information.

Learning Outcomes

- Be able to speak the language well enough to satisfy routine social demands and limited nonspecific, work-related tasks.
- Be able to comprehend face-to-face speech in standard language spoken at a normal rate with some repetition and rewording by a native speaker not accustomed to dealing with foreigners.
- Have sufficient comprehension to read authentic printed material or edited texts and material within a familiar context.
- Be able to write routine social correspondence and simple discourse as well as cohesive summaries, resumes, short narratives and descriptions on factual topics in the past, present, and future times.
- Possess a broad understanding of the history and civilization of the target culture.
- Possess a critical and theoretically-based awareness of the literary and cultural traditions, periods, genres and contexts of the target language.

General Requirements

- 36 credit hours in Spanish language and literature courses (beyond Spanish 102)
- 6 credit hours in Foreign Culture Studies

Course Requirements

Required Courses in Advanced Language, 6 semester hours:

- SPAN 300
- SPAN 301

Required Literature Courses, 9 semester hours:

- SPAN 310
- SPAN 319
- SPAN 320

Select nine additional semester hours in Spanish literature.
Required Culture/Civilization courses;

- SPAN 325
- SPAN 425

Required Senior Seminar:

- SPAN 497

Select 6 credit hours in Foreign Culture Studies: Hispanic topics (F CS).

Total: 42 semester hours – 36 semester hours in Spanish plus 6 semester hours in F CS.

In some cases these major requirements may result in total credit hours in the major in excess of the Letters, Arts and Sciences 54 hour subject area requirement. Unless the student successfully petitions the Committee on Academic Progress for a waiver, the major hours exceeding the 54 hour maximum will be in addition to the 120 hours needed to graduate.

Minor in Spanish

The minor in Spanish requires a total of 18 credit hours in Spanish beyond Spanish 102, including the following minimum distribution:

- SPAN 300 Spanish Grammar
- SPAN 301 Spanish Conversation and Composition
- SPAN 325 or 425 Hispanic Culture Studies
- SPAN 310 Literature
- SPAN 319 or 320 Literature

Minor in French

As one of the key languages of international diplomatic communication, literary creativity, and artistic achievement, French is a practical and useful language for career, personal and professional travel, and general cultural enrichment.

The minor in French requires a total of 18 credit hours beyond French 102, including the following minimum distribution:

Select two language based courses from the following:

- FR 293
- FR 300
- FR 301
- FR 302

And select two French literature/culture/film based courses from FR 311 and above.

Minor in German

An important language closely related to English, German is the tongue of America's third largest trade partner, of much scientific research, and of international diplomacy. It is also the language of music's "3B's" (plus Wagner, Mozart, and Mendelssohn), of Goethe, Marx, Einstein, Kant, and Freud, spoken not only in Germany, but also in Austria and Switzerland. As such, German is a staple of any sound general education, a language that will enhance a career and enrich personal pleasure and travel.

The minor in German minor requires a total of 18 credit hours beyond German 102. including the following minimum distribution:

Select two language based courses from the following:

- GER 293
- GER 300
- GER 301
- GER 302

And select two German literature/culture/film based courses from GER 313 and above.

Additional Language Courses

American Sign Language

American Sign Language (ASL) provides a unique modality – visual and gestural rather than the traditional aural/oral approach to modern language teaching. ASL is a fully developed language, containing rich verbal aspects and a classifier system. Elements of deaf culture are also presented through theoretical and applied simulations.

Greek

Greek has the longest documented history of any Indo-European language. Classical Greek is the language of Homer and the great works of literature and philosophy which are the foundations of modern mathematics, science, and western cultures. Classical Greek is a strong corollary to studies in the arts, sciences, and literature.

Italian

The language of the great literature of the Renaissance, grand opera, and the influential neo-realist cinema. Italian is not only a language of artistic achievement, but one of strong American ethnic heritage and international business.

Japanese

Japanese is the language of contemporary commerce, the literature of Mishima and Nobel Prize winner Kawabata. Its theatrical tradition includes Kabuki, Bunraku, and Noh, while its writing system utilizes Hiragana, Katakana, and Kanji. Japan is the land of flower arrangement and the tea ceremony, the Samurai and "Ran."

Latin

With 50 percent of English vocabulary derived from Latin, it is not surprising to discover that students who have studied Latin score about 150 points more on such standardized verbal tests as the SAT than do students who have not had Latin (Washington Post). Latin is also the basis of the five romance languages (Spanish, French, Italian, Portuguese, and Rumanian) and as such helps students with further language study.

Russian

Russia, expanding in social and economic importance, has a history of great literature and great art. Turgenev, Dostoyevski and Solzhenitsyn as well as the artistic treasures of the Kremlin are revealed through a study of this language.

Mathematics

Faculty

Professors: Gene Abrams, Robert Carlson, James Daly, Jeremy Haefner, Jim Henderson, Greg Morrow, Keith Phillips, Kulumani Rangaswamy, Rinaldo Schinazi (Chair) and Yu Zhang; ***Associate Professor:*** Sarbarish Chakravarty; ***Assistant Professors:*** Radu Cascaval and Seung Son; ***Instructor:*** Shannon Michaux.

The Department of Mathematics at UCCS offers a wide range of courses, degrees, and programs to meet the needs of a diverse constituency in the Pikes Peak Region. The degree programs include a Bachelor of Arts in Mathematics (including a secondary teaching option), Bachelor of Science in Mathematics, and Master of Science in Applied Mathematics. A Mathematics option is also available through the Master of Sciences degree offered through the College of Letters, Arts and Sciences.

The department offers minors in both Mathematics and Statistics. In addition, the department supports the Certificate Program in Industrial Mathematics, and the Certificate Program in CATME (Center for Applications and Technology in Mathematics Education).

Mathematics Learning Center

The Mathematics Learning Center (MLC) is located in the EAS Building. The MLC began operation in the fall of 1990 as part of a federally funded Title III initiative known as

Project Excel. The Math Learning Center provides drop-in mathematics tutoring for students, supports the individualized mathematics courses offered through the Extended Studies program, and provides student support for the Hewlett-Packard Computer Laboratory, which is used for mathematical endeavors. As the role of computer technology in the classroom continues to grow, so too does the importance of the MLC as a vital student resource.

Mathematics Academic Policies

Prerequisite Policy
For the courses Math 104, 105, 111, 112, and 135, students must meet the entrance requirements for the course. For all other courses, listed prerequisites are advisory only. If a student has not achieved a passing grade in a listed prerequisite course, the student must demonstrate that he/she possesses an appropriate level of competence in the prerequisite topics before enrolling in the subsequent course. Such students must satisfactorily complete either the Algebra Diagnostic Exam or Calculus Readiness Exam as warranted. Students enrolled in any one of the courses Math 104, 105, 111, 112, 135 who have not either met the course prerequisite or the exam prerequisite by the second week of the semester must disenroll from the course.

Students who are interested in enrolling in any of Math 104, 105, 111, 112, or 135 are strongly encouraged to take the appropriate placement exam well before the start of the semester, for pedagogical, advising and administrative purposes. To make an appointment to take a placement exam, or for more information, contact the Testing Center at 262-3340.

Calculator Policy
Calculator usage on exams is limited to a basic scientific calculator with a minimal number of storage registers and no graphing capability.

Learning Outcomes, Mathematics, BA/BS

- Be able to analyze problems and formulate appropriate mathematical models.
- Understand mathematical techniques and how they apply.
- Recognize phenomena and be able to abstract, generalize and specialize these patterns in order to analyze them mathematically.
- Be able to express oneself in writing and orally in an articulate, sound and well-organized fashion.
- Program reinforces mathematical inspiration among women and men alike.
- Be able to use, verify, and check well-known techniques of calculation.
- Demonstrate employment status or graduate degree status in a mathematically related area.

Mathematics Bachelor of Arts, BA

The Bachelor of Arts degree in Mathematics is a traditional degree in mathematics. Most students choose this degree in order to prepare for a career as a mathematics teacher or to prepare for a graduate program in pure mathematics.

BA General Requirements
- completion of at least 42 hours
- a minimum 2.0 on each required mathematics course
- a minimum CU cumulative GPA of 2.0
- an Exit Interview with the Mathematics department is required prior to graduation.

BA Course Requirements
(42 semester hours)
- MATH 135, 136, 235.Calculus I, II, III 12
- MATH 215 Discrete Mathematics 3
- MATH 310 or Math 381 Statistics for the Sciences or Intro to Probability and Statistics 3
- MATH 313 Introduction to Linear Algebra . . 3
- MATH 340 Intro to Differential Equations . . . 3
- MATH 414 Modern Algebra 1 3
- MATH 431 Modern Analysis I 3
- MATH 448 Mathematical Modeling or MATH 48 Stochastic Modeling 3
- Math 303 or above electives 9

LAS General Education Requirements for Math BA Students
Humanities: Mathematics BA students should include PHIL 344 Symbolic Logic or PHIL 443 Logical Theory in their selection of Humanities area general education courses.

Natural Sciences: Mathematics BA students should select from the LAS Natural Sciences area general education courses.

Social Sciences: Mathematics BA students should select from the LAS Social Sciences area general education courses.

Writing Requirements: Mathematics BA students should complete ENG 131 and ENG 141, Rhetoric and Writing I and II.

Free Electives: Mathematics BA students should take a number of courses in computer science to prepare them for the various career options in mathematics. Foreign languages are encouraged for students interested in research.

Mathematics BA, Secondary Teaching Option

(42 semester hours)

There is an option for Mathematics Secondary Teaching. Students should contact an advisor in the College of Education as soon as possible to construct a schedule of their required education courses for this option.

BA-Secondary Teaching Course Requirements

MATH 135, 136, 235.Calculus I, II, III 12
MATH 215 Discrete Math 3
MATH 310 or Math 381 Statistics for the Sciences or Intro to Probability and Statistics 3
MATH 311 Number Theory 3
MATH 313 Intro to Linear Algebra 3
MATH 340 Intro to Differential Equations 3
MATH 421 Higher Geometry 3
MATH 431 Modern Analysis I 3
MATH 448 Mathematical Modeling or
MATH 485 Stochastic Modeling 3
Mathematics electives 6

LAS General Education Requirements for Math BA-Secondary Teaching Students

Humanities: BA Secondary Teaching Option Candidates need to take PHIL 100 Intro to Philosophy or PHIL 102 Ethics as part of the LAS Humanities general education area requirements

Natural Sciences: BA Secondary Teaching Option Candidates need to take one of the following as part of the LAS Natural Sciences general education area requirements:

- PES 111, 115, 112, 215 General Physics I and II and Labs, plus 2 hours from the approved LAS Natural Science list OR
- 12 hours from the approved LAS Natural Science list to include one lab

Social Sciences: BA Secondary Teaching Option Candidates need to take PSY 100. General Psychology as part of the LAS Social Science general education area requirements.

Writing Requirements: BA Secondary Teaching Option Candidates should complete ENG 131 and ENG 141, Rhetoric and Writing I and II.

Free Electives: Secondary Teaching Option Candidates will fill up all free electives with education courses. (Students should contact the College of Education for required education courses.)

Mathematics Bachelor of Science, BS

The Department of Mathematics offers a curriculum leading to the degree of Bachelor of Science in Mathematics. The Bachelor of Science Degree in Mathematics is well-suited for those students aiming toward a career in applied mathematics or planning for graduate school in applied mathematics. This program is also appropriate for those mathematics students who have not yet decided between a teaching career or a career in industry.

Modern industrial and scientific enterprises are so dependent on advanced mathematical concepts that applied mathematicians are needed today by almost all concerns that are engaged in such work. The undergraduate curriculum is designed to give training in mathematics and in engineering and science. The use of numerical methods and computers is included.

Normally, a graduate of mathematics who accepts a position in the private or public sector will be working as part of a team to solve applied problems outside of mathematics. Seldom is this problem purely one in mathematics. Because of this, an applied mathematician needs a working knowledge of another discipline, and so each graduate of the BS in Mathematics program must complete a secondary area requirement. This secondary emphasis area is in a specific engineering, computer science, or applied science department. The choice of a secondary area must be approved by the student's faculty advisor.

Foreign languages are encouraged for students interested in research. A maximum of 8 hours of foreign languages may be taken and applied to the approved electives requirements. German, French and Russian are the approved languages.

BS General Requirements

- 42 semester hours in Mathematics
- 18 semester hours in Basic Science and Technology
- 18 semester hours in Secondary Area Requirements, of which 9 hours must be 300 level or higher
- a minimum 2.0 on each required mathematics course
- a CU minimum GPA of 2.0
- an Exit Interview with the Mathematics department is required prior to graduation.

BS Required Courses

Mathematics (42 semester hours)

MATH 135, 136, 235 Calculus I, II, III 12
MATH 215 Discrete Mathematics 3
MATH 310 **OR** Math 381 Statistics for the Sciences or Intro to Probability and Statistics 3
MATH 313 Introduction to Linear Algebra 3
MATH 340 Introduction to Differential Equations 3
MATH 431 Modern Analysis I 3
MATH 448 Mathematical Modeling **OR** MATH 485 Stochastic Modeling 3

And one of the following restricted mathematics elective sequences *6*

Analysis:
(a) MATH 445 Complex Variables and
(b) MATH 443 Ordinary Differential Equations, **OR** MATH 447 Methods of Applied Math,

Optimization and Numerical Analysis:
(a) MATH 442. Optimization and
(b) MATH 465. Numerical Analysis,

Statistics: two courses from:
MATH 481 or MATH 482. Introduction to Mathematical Statistics, I or II,
MATH 483. Linear Statistical Models,

MATH 485. Stochastic Modeling

And Mathematics electives (numbered 310 or higher) . . . 6

Basic Science and Technology (18 semester hours)

CS 115 Prin of Computer Science 3
CS 145 Data Structures & Algorithm 3
CS 460 or MATH 465 Numerical Computing or Numerical Analysis 3
PES 111 General Physics I 4
PES 112 General Physics II 4
PES 115 General Physics Lab I 1

Note: Nine (9) Hours of the LAS Natural Science Area Requirement may be satisfied by taking PES 111, 112 and 115.

BS Secondary Area Requirements

Secondary area requirements may be done in any one of the following ways:

Departmental Coursework: Select classes from one of the following departments: Biology, Chemistry, Computer Science, Economics, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, Physics, or Psychology. Courses used for general education requirements may be counted towards this requirement.

Interdisciplinary Secondary Areas: Complete one of the interdisciplinary secondary area programs that have been approved by the department. At present, there are two such programs: System Science and Engineering and Actuarial Science (see Below).

Personalized Secondary Program: Design a personalized secondary area program that may include courses from departments other than those listed in above, and/or may be interdisciplinary in nature. Such a program MUST have the approval of the faculty advisor from the Mathematics Department.

LAS General Education Requirements for Math BS Students

Humanities: Math BS students should select PHIL 344 Symbolic Logic or PHIL 443 Logical Theory as part of their LAS Humanities general education area requirements.

Natural Science Area Requirement: The required courses PES 111, 112, and 116 apply to this requirement. An additional three hours are needed.

Social Sciences: Mathematics BS students should select from the LAS Social Sciences area general education courses; BS Secondary Teaching Options Candidates should include PSY 100, General Psychology, as part of the requirements.

Writing Requirements: Mathematics BS students should complete ENG 131 and ENG 141, Rhetoric and Writing I and II and ENGL 309 Technical Writing and Presentation.

Free Electives: Mathematics BS students should take a number of courses in computer science to prepare them for the various career options in mathematics. Foreign languages are encouraged for students interested in research. Teachers will fill up all free electives with education courses (students should contact the College of Education for required education courses)

Concentrations and Minors

Concentration in System Science and Engineering

Systems science is an approach that views an entire system of components as an entity rather than simply an assembly of individual parts; each component is designed to fit properly with the other components rather than to function by itself. The engineering and mathematics of systems is a rapidly developing field. It is one of the most modern segments of applied mathematics, as well as an engineering discipline. It is concerned with the identification, modeling, analysis, design, and control of systems that are potentially as large and complex as the U.S. economy or as precise and vital as a space voyage. Its interests run from fundamental theoretical questions to the implementation of operational systems. In its mathematical aspects it draws on the most modern and advanced areas of mathematics. At the application end of the spectrum, the systems scientist is a scientist/engineer with a unique and indispensable viewpoint. For example, in the aerospace industry, the systems engineer devises the control and guidance laws, navigational systems, trajectory tracking, and estimating algorithms - indeed the total coordinated structure of complex aerospace undertakings.

Required Courses for a Systems Science & Engineering Concentration

Mathematics Requirement
One from MATH 448, 481, 482, 483, 485 AND
One from MATH 442, 443, 447, 465, 467

Secondary Area Requirements
Please see Math Advisor.

Concentration in Actuarial Science

Actuarial Science is a professionally oriented program combining business, economics, and mathematics, and is designed to prepare students to begin careers as actuaries. Actuaries are experts in risk management. Graduates of this program are prepared for the first three professional actuary exams and have a solid base of preparation for further exams. See the Society of Actuaries web page, http://www.soa.org, for additional information concerning these exams and a career in Actuarial Science.

Program Requirements

To provide a solid foundation for this career and prepare for these three exams, the student should complete the following program:

Mathematics Requirement
MATH 381. Introduction to Probability and Statistics
Two from MATH 481, 482, 483 or 485

Secondary Area Requirements
Economics
ECON 101. Introduction to Microeconomics

ECON 102. Introduction to Macroeconomics
ECON 301. Intermediate Microeconomic Theory
Business
ACCT 201. Introduction to Financial Accounting
BLAW 200. Business Law
FNCE 305, FNCE 420

Minor in Mathematics

General Requirements

- at least 24 hours of Math courses
- every course in the minor completed with a grade of C or better.
- The student will be responsible for any prerequisites to required courses.

Required Courses

MATH 135, 136, 235 . . . . . .12 hours
One from MATH 215, 311, 341, 350, 351, 414, 421, or 431 . . . . . 3 hours
At least 9 additional hours of math courses numbered above 303 . . . . . 9 hours

Minor in Statistics

General Requirements

- at least 21 hours of courses
- every course must be completed with a grade of C or better
- a student intending to minor in statistics must plan her/his program and obtain the approval of a departmental advisor before the end of her/his sophomore year.

Course Requirements

MATH 310 . . . . . 3 hours
MATH 381 3 hours
One of: MATH 481, 482, 483, 485 . . . . . 3 hours

Additional 12 hours, planned and approved by departmental advisor before the end of student's sophomore year.

Certificate Programs

Industrial Mathematics Certificate Program

The program endeavors to prepare students for careers in the applications of Mathematics in Industry by emphasizing mathematical modeling, courses in traditional applied mathematics, and work on actual industrial problems with the cooperation of representatives from industry. The certificate is awarded at three levels. It is available for undergraduate students in both the colleges EAS and LAS and for graduate students in EAS. Please call or write the Department of Mathematics for more information.

Applications and Technology in Mathematics Education Certificate Program (CATME)

The purpose of the program is to train teachers (and potential teachers) in the use and methodology of applications and technology in the mathematics classroom. The program emphasizes courses that train the instructor on the use of graphing calculators, computer algebra and geometry systems, as well as the applications of mathematics that use those technologies. It is available to all registered students at UCCS. Please visit the Department of Mathematics website http://math.uccs.edu/programs for more information.

Master of Science, MS – Applied Mathematics

The Department of Mathematics offers a strong graduate program leading to the Master of Science in Applied Mathematics. Specific areas of study currently available include astrodynamics, statistics, probability, differential equations, applied analysis, computer vision, algebra, and coding theory.

Applied Mathematics, MS – Tracks

To respond to the needs of both students and employers, the Department has organized this degree program into a system of four tracks, which are intended to help students develop their programs of study:

- K-14 education
- PhD preparation
- Applied and computational mathematics
- Business and management.

Detailed information about the tracks may be found at the department web site, http://math.uccs.edu. Customized programs of study are also available.

Learning Outcomes, Applied Mathematics, MS

- Students will understand core graduate mathematics material and students must demonstrate substantial comprehension of Linear Algebra and Real Analysis, the common core subjects required of all students in the program.
- Competence in written and oral communication is essential for most mathematical careers. Such communication skills are also important in many other aspects of life therefore, students will be able to deliver written and oral presentations demonstrating comprehension of complex mathematical content and the ability to communicate that complex mathematical content to a broad audience (general department faculty and graduate students).
- The program prepares students for a variety of mathematical careers. The current program has four identified tracks: computational and applied mathematics, education, business and management, and PhD preparation. Students should be prepared for employment requiring mathematical skill and sophistication at the Master's level.
- Students shall develop a more sophisticated view of mathematics than is achieved in the undergraduate program. The opportunity for sophisticated learning comes both in and outside the classroom. Student

exposure to mathematical research and advanced applications is an important aspect of this goal.

- Students successfully completing the PhD preparation track should be able to enter quality doctoral programs with a reasonable probability of success.
- Students should have the opportunity to hear research talks in seminars and colloquia, and participate in research projects (this might come through on campus employment, independent study, or thesis work). Students are strongly encourages to attend our biweekly colloquium.

Applied Math, MS Admission Requirements

- Bachelor degree in mathematics (or a Bachelor degree in some other field, with extensive coursework in mathematics), including a course in real analysis comparable to the UCCS course Math 431
- A minimum grade point average of 3.0. Under special circumstances students may be admitted with a lower grade point average (or without a course in real analysis) as provisional degree students.

Please refer to the Graduate School admissions requirements.

Graduate Teaching Fellowships

A limited number of teaching assistantships are available. For information contact the graduate advisor of the Department of Mathematics. Typically, students requesting assistantships should indicate this three months prior to the application deadline for the intended semester.

Degree Requirements

- A 3.0 grade point average in all course work applied towards the degree.
- All degree courses must be part of an approved plan of study, developed by the student and approved by the advisor within the first semester after being admitted to the program. This plan may be revised at any time with the approval of the advisor. The plan will require students to demonstrate some cohesiveness in the courses chosen, or to demonstrate a clear subject area of concentration.
- Courses will have graduate rank only if members of the graduate school faculty teach them and are at the 500 level or above.
- At least 30 semester hours of approved graduate work, including Linear Algebra (Math 513) and Modern Analysis II (Math 532). All students must pass comprehensive examinations in these two subjects. Students completing one of the four tracks of study will automatically fulfill the requirements for the MS Applied Math degree.
- A student may complete up to 12 hours of appropriate graduate coursework in departments other than the department of mathematics, as part of the "tracks" program. Such courses MUST be PRE-approved by the advisor.
- Students may select a thesis or non-thesis option. Students in the thesis option will replace up to 6 hours of courses with a Master's thesis.
- All students make an oral presentation regarding some aspect of advanced mathematics. For students pursuing the thesis option, the thesis defense will qualify as such a presentation.
- Students must demonstrate basic competency in computing.

The department graduate committee must approve exceptions to these requirements.

Master of Sciences, MSc

The Department of Mathematics offers mathematics and mathematics teaching options under this interdisciplinary program. Information on the MSc program is included at the end of this LAS section in the *Bulletin*.

Minor, Mathematics as Liberal Art

A minor in mathematics as a liberal art is offered by the Interdepartmental Studies program of the College of Letters, Arts, and Sciences and is designed to give students a special look at mathematics as a liberal art. Prime emphasis is on the ideas of mathematics rather than on skill, and on aesthetic aspects of mathematics such as beauty, elegance and paradoxy, that brings mathematics close to the arts. Special attention is paid to the questions of what mathematics is, what mathematicians do, how they pursue their research, and what role intuition plays. Also of interest is the human aspect of mathematics in the life and work of its creators. This program may be of a special interest to students majoring in humanities, mathematical education, and natural sciences. A degree option is available for elementary, secondary and special education teachers. Please contact the Student Success Center or the College of Education for further information. The Colorado Mathematical Olympiad, held annually at UCCS, provides a valuable field experience for the program.

General Requirements for the Minor

- at least 18 credit hours, of which 9 hours must be upper division
- a grade point average of at least 2.0 (C); all courses applied to the minor are to be completed with a grade of at least a C-.
- A substitution of required course by an equivalent course is subject to approval by Professor Alex Soifer.

Required Courses (9 credit hours):

I D 200 Mathematics: A Human Endeavor
I D 445 Creators of Mathematics: An Historic View
I D 480/580 What is Mathematics?

Elective Courses (9 credit hours):
I D 205 Beyond the Finite
MATH 311 Theory of Numbers
MATH 350 Graph Theory
I D 450/550 A Serious Course in Recreational Mathematics
I D 455/555 Geometry as a Study of Transformations
I D 485/585 Geometric Insight in Combinational Mathematics
I D 490/590 Mathematical Coloring Course
I D 501 Advanced Problem Solving in Secondary Mathematics

For further information about the minor, please contact Professor Alex Soifer.

Military Science (US Army)

Reserve Officers' Training Corps (ROTC) Program

Faculty

Professor of Military Science: Lieutenant Colonel James M. Desjardin; ***Assistant Professors of Military Science:*** Major Gregory Cyr, Captain Kimberly C. Hageman, Captain Linda K. Lewis and Major John E. Price; ***Senior Military Science Instructor:*** Master Sergeant George C. Vega; ***Military Science Instructors:*** Master Sergeant Pedro Celestino, and Sergeant First Class Gener Molina.

The Army ROTC Program

The focus of this program is to recruit, develop, and commission college-educated men and women to serve as Officers in the United States Army. Participants in the program are commissioned as Second Lieutenants in the Army upon graduation with a bachelor's degree. They will be expected to serve in either the active Army or in the Reserve components (Army Reserves or Army National Guard) after commissioning.

The program is centered on teaching the principles of Leadership. These principles can be applied to positions in the military or in civilian careers. All courses of instruction are designed to develop leadership and management skills as well as enhance the self- confidence and initiative of each student.

Military Science is taken in addition to the required courses for each student's major.

ROTC is a four-year program that is divided into two phases: the basic course and the advanced course.

A minor in military science is available for qualified students.

Outcomes, Military Science

- The student should be familiar with the basic foundations of military leadership and Soldier skills at the completion of the Freshmen Year.
- The student should know the basic foundations of military leadership and Soldier skills at the end of the sophomore year.
- The student should be able to apply their own Soldier skills in order to lead a small unit in a tactical environment at the end of the junior year. The student will attend a 7-week course at Fort Lewis, Washington where these skills and leadership principles will be applied in a simulated tactical environment.
- The student should be familiar with the programs and administrative aspects of the United States Army as well as applied leadership and mentorship principles while training lower classmen at the end of the senior year.
- The student will graduate with a Bachelor degree, commission as a Second Lieutenant into the United States Army, and be committed to serving 8 years.

The Basic Course

The focus for these lower division courses (MS 100/200 courses) is to lay a foundation for more advanced instruction in the skills needed to be a successful leader. Students may participate, even if they do not plan on receiving a commission, in order to gain experience in leadership and management.

This phase is open to all qualified students (generally freshmen and sophomores). Students should be aware that physical training is required for successful course completion.

There is no military obligation for participation in the basic course unless a student is receiving an Army ROTC scholarship.

Sophomores wanting to complete the basic course requirements so that they may enter the advanced course can compress the basic course and/or attend the Leader's Training Course during the summer between their sophomore and junior years. For further information please see below and contact the Department of Military Science.

The Advanced Course

The advanced course (MS 300/400 level courses) is oriented to preparing students (juniors and seniors) who have successfully completed the basic course requirements with the skills and knowledge necessary to be commissioned as a Second Lieutenant in the Army. The focus of the advanced course continues on building leadership skills and abilities.

Students participating in the advanced course have a contractual obligation to complete the program and enter the Army upon graduation.

Students must have a minimum of four semesters remaining in their course work before graduation to participate in the advanced course and they must be in a full-time status (12 credit hours per semester) during each of those semesters.

Entry into the Advanced Course
Credit for the basic course for entry into the advanced

course may be achieved in a number of ways. The normal progression is to successfully complete all four basic course military science classes (MS 101, 102, 201 and 202) with a grade of C or better. Students can also enter the course laterally by receiving credit for one of the following:

- Prior enlisted service in the Army, Air Force, Navy or Marines
- Participation of a minimum of three years in a JROTC program
- At least one year as a service academy Cadet Successful completion of the Army ROTC Leaders' Training Course (LTC).

LTC training is available to students who did not have the opportunity to participate in any of the above programs. The five-week course is conducted every summer at Fort Knox, KY. Participants receive pay while attending. The Army also pays travel and some other expenses. For more information contact the Department of Military Science.

Leadership Development Assessment Course
Students participating in the advanced course will be required to attend the Leadership Development Assessment Course (LDAC) which is conducted annually at Fort Lewis, Washington. This camp is normally attended during the summer between a student's junior and senior year. It is a 33-day event that provides the best possible professional training and evaluation for all students participating in ROTC before commissioning. The camp mission includes continued military training and leadership development, but the primary focus is to evaluate each student's Officer potential. This camp represents the only opportunity in ROTC to gather all qualified students from across the nation on one "level playing field" for the purposes of making those assessments. Successful completion of the camp is mandatory for commissioning.

Course Offerings

Basic Course
MS 101 Leadership and Personal Development (F) 1
MS 102 Introduction to Tactical Leadership (S) 1
MS 201 Innovative Team Leadership (F) 2
MS 202 Foundations of Tactical Leadership (S) 2

Advanced Course
MS 301 Adaptive Tactical Leadership I (F) 3
MS 302 Leadership in Changing Environments II (S) . . 3
MS 303 Leadership Development Assessment Course (LDAC) 3
MS 401 Developing Adaptive Leaders (F) 3
MS 402 Leadership in a Complex World(S) 3
MS 498 Special Studies in Leadership (F/S} 3

The Military Science Minor
A minor in military science is available for students participating in the Army ROTC Program. Participants must achieve a minimum of 18 credit hours by graduation, which includes credit for all advanced course classes (to include graduation from Advanced Camp) and a course in Military History. More information about the minor is available through the Department of Military Science.

Scholarship Information
The Army ROTC Scholarship program provides financial assistance for the education and training of highly motivated men and women who desire to pursue careers as commissioned officers in the U.S. Army after graduation with a bachelor's degree. Four-, three- and two-year scholarships are available to qualified candidates. The scholarship pays for school tuition, books, certain fees, and provides the student with a monthly, tax-free stipend of between $300 and $500 per month for up to 10 months per year (depending on academic status). For more information pertaining to scholarships and enrollment eligibility please contact the Department of Military Science.

Music
For information on Music Studies, see Visual and Performing Arts (VAPA)

Philosophy

Faculty
Professors: Frederic Bender, Mary Ann Cutter, Dorothea Olkowski (Chair), and Raphael Sassower; ***Associate Professor:*** Robert Welshon; ***Assistant Professor:*** Sonja Tanner; ***Senior Instructor:*** Lorraine Arangno; ***Instructors:*** Terry Clark, Mark Flory, Christal Frakes, Mary Jane Sullivan and Patrick Yarnell.

Philosophy teaches analytical and critical thinking, develops oral and written communication skills, and contributes to interdisciplinary understanding. Philosophy as a discipline attempts to answer perennial questions about values, human existence, and the nature of reality. Skills developed in this inquiry help philosophy students to excel in careers in law, medicine, management, education, government, writing, computer science, psychology, sociology, and ministry among many others. Philosophy majors consistently score in the top percentiles for all majors on the GRE, LSAT, GMAT, MCAT and other graduate and professional admissions tests.

Philosophy – Bachelor of Arts, BA

Learning Outcomes, Philosophy

- Be able to understand and apply critical thinking skills.
- Be able to articulate and assess an argument in a thesis-driven paper.
- Be able to read and discuss critically and in detail at least one classic philosophic text in its entirety from one of the major periods in the history of philosophy.

- Be able to write a Senior Thesis (a 30-page thesis-driven philosophical research paper) on some philosophical issue approved by the Department.
- Be able to orally defend a Senior Thesis on some philosophical issue approved by the Department.
- Be able to undertake graduate work in philosophy or enter a professional school in law, medicine or business.

General Requirements

The bachelor of arts degree in philosophy requires 30 semester hours with grades of C or above; a maximum of 54 hours can be applied to the degree. At least 21 out of the 30 hours must be upper division courses. The philosophy minor requires 18 hours of course work. The philosophy major may choose either the general requirements or the student may specialize in one of four optional programs.

Required Courses for the Philosophy Major

1. One course in Logic selected from:
PHIL 112 Critical Thinking
PHIL 344 Symbolic Logic
PHIL 443 Logical Theory

2. One course in Social and Political Philosophy/Ethics selected from:
PHIL 316 Death and Dying
PHIL 320 Politics and the Law
PHIL 323 Women's Equality; Women's Difference
PHIL 324 Philosophy of War, Conflict Resolution, and Peace
PHIL 340 Holocaust
PHIL 360 Philosophy of Religion
PHIL 373 Philosophy and Literature
PHIL 414 Philosophy, Globalization and Sustainability
PHIL 415 Ethical Theory
PHIL 416 Business and Management Ethics
PHIL 417 Health Care Ethics
PHIL 425 Selected Topics in Social Theory
PHIL 426 Philosophy of Law
PHIL 455 Feminism, Sexuality, and Culture

3. One course in Metaphysics, Ontology, Epistemology, or Philosophy of Science:
PHIL 317 Theories of Knowledge
PHIL 330 Philosophy of Mind
PHIL 333 Understanding Emotion
PHIL 334 Love and Hatred
PHIL 335 Metaphysics
PHIL 339 Philosophy of Psychology
PHIL 370 Aesthetics
PHIL 404 Continental Philosophy: Early 20th Century
PHIL 406 Continental Philosophy: Mid 20th Century
PHIL 407 Existentialism
PHIL 408 Continental Philosophy : Late 20th Century
PHIL 410 American Pragmatism
PHIL 420 Consciousness
PHIL 435 Analytic Philosophy
PHIL 440 Philosophy of Science
PHIL 441 Philosophy of Biology
PHIL 446 Theories of Human Nature

4. Two courses in the History of Philosophy:
PHIL 348 Philosophies of India
PHIL 349 Philosophies of China
PHIL 351 History of Philosophy: Pre-Socratic
PHIL 353 Hellenistic Philosophy
PHIL 354 Medieval and Renaissance Philosophy
PHIL 356 Modern Classical
PHIL 357 Enlightenment and 19th Century
PHIL 358 From Hegel to Nietzsche

5. Senior Seminar and Thesis
PHIL 495 Senior Seminar and Thesis

Philosophy Major Options

The department offers options in areas of philosophy that focus on particular fields of study. Students completing the requirements in any of the options will receive a certificate from the department indicating that they have a major in philosophy with competence in a particular area. To quality for an option, the student must fulfill the requirements for the major including at least 30 hours of course work, 12 hours of which must be in the option area.

1.Philosophy and Religions, East and West
PHIL 105 Philosophy and Religion
PHIL 110 Introduction to Religious Studies
PHIL 310 World Religions
PHIL 311 Women and Religion
PHIL 312 Greek and Roman Mythology
PHIL 316 Philosophical Issues in Death and Dying
PHIL 340 Holocaust
PHIL 348 Philosophies of India
PHIL 349 Philosophies of China
PHIL 350 Buddhist Philosophy
PHIL 354 Medieval and Renaissance Philosophy
PHIL 360 Philosophy of Religion
PHIL 361 Philosophical Approaches to the Hebrew Bible
PHIL 362 Philosophical Approaches to the New Testament
PHIL 363 Race and Gender in the Bible

2. Law, Social Justice, and Global Conflict:
PHIL 102 Ethics
PHIL 104 The Individual and Society
PHIL 131 Women and Science
PHIL 320 Politics and the Law
PHIL 323 Women's Equality, Women's Difference
PHIL 324 War, Conflict Resolution, and Peace
PHIL 340 Holocaust
PHIL 414 Philosophy, Globalization, and Sustainability
PHIL 415 Ethical Theory
PHIL 417 Health Care Ethics
PHIL 425 Topics in Social Theory
PHIL 426 Philosophy of Law

PHIL 455 Feminism, Sexuality and Culture
PHIL 493 Advanced Topics in Philosophy

3. Analytic Philosophy, Computer Sciences, and Psychology:
PHIL 317 Theories of Knowledge
PHIL 330 Philosophy of Mind
PHIL 344 Symbolic Logic
PHIL 420 Consciousness
PHIL 435 Analytic Philosophy
PHIL 440 Philosophy of Science
PHIL 443 Logical Theory
PHIL 449 Philosophy of Language

4. Continental Philosophy, Cultural Studies, and Humanities:
PHIL 340 Holocaust
PHIL 357 Enlightenment and 19th Century'
PHIL 358 From Hegel to Nietzsche
PHIL 370 Aesthetics
PHIL 404 Continental Philosophy: Early 20th Century
PHIL 406 Continental Philosophy: Mid 20th Century
PHIL 407 Existentialism
PHIL 408 Continental Philosophy: Late 20th Century
PHIL 440 Philosophy of Science
PHIL 455 Feminism, Sexuality, and Culture
PHIL 460 Theory of Film

Philosophy Minors

The department offers minors in areas of philosophy that complement various major fields. Minors require 18 hours of course work, including PHIL 112 and one course in the History of Philosophy.

Philosophy Double Majors

Adding a philosophy major to one's major in another discipline, thereby creating a double major, is an option for students who wish to obtain a broader perspective in their discipline for post-graduate work. All requirements for the philosophy major apply to double majors. Students may have two different majors in two different colleges or in the same college.

Physics and Energy Science

Faculty

Professor Emeritus: Richard Blade; ***Professors:*** James Burkhart (Chair), Robert Camley and Zbigniew Celinski; ***Associate Professors:*** Tom Christensen and Marek Grabowski; ***Assistant Professors:*** Anatoliy Glushchenko and Radek Lopusnik; ***Senior Instructors:*** Sam Milazzo and Daryl Prigmore; ***Instructors:*** Robert Gist and Ramon Tirado.

Physics – Bachelor of Science, BS

Degree Options

The bachelor of science program in physics is designed to help students attain their professional goals in physics. Three options within the bachelor of science program enable students to achieve their particular educational objectives. The options are Traditional Physics, Solid State Physics, and Energy Science. Engineering Physics is discontinued as of Fall 2005.

Courses in each option are chosen to teach the fundamental concepts on which the field is based. Laboratories are designed to give students practical hands-on experience. Advanced laboratories provide opportunities to study and use state-of-the-art technology in the student's area of interest.

The solid state laboratory required in the solid state option is designed to teach the fundamentals of materials technology.

A degree option is available for secondary education teachers. Please contact the Student Success Center or the College of Education for further information.

Learning Outcomes, Physics, BS

- Students will possess the fundamental physics that is necessary for admission into a graduate program in physics or related technical fields, such as in education, industry, research, and military.
- Students will be able to apply the fundamental ideas and methods of physics and be able to analyze problems using these skills.
- Students will be able to prepare and present several research topics and defend them before peers and faculty.

General Requirements

- 33 credit hours in Physics Core requirements
- 37 credit hours in other Core areas
- 18 credit hours in Physics Option area
- a maximum of 54 credits in PES will apply toward the degree
- a grade of C or better in every physics course that is applied toward the major
- students must meet the 12 hour LAS general education area requirements from both humanities and social science.

Required Courses

Required Core Courses for all Three Options

Physics and Energy Science (PES)
PES 111 General Physics I **OR**
PES 171 Honors Physics I (recommended) 4
PES 112 General Physics II **OR**
PES 172 Honors Physics II (recommended) 4
PES 213 General Physics III 3
PES 116 Advanced Physics Lab I 1
PES 216 Advanced Physics Lab II 1
PES 313 Modern Physics 3
PES 315 Modern Physics Laboratory 2

PES 317 Instrumentation Laboratory I 2
PES 318 Instrumentation Laboratory II 2
PES 321 Classical Mechanics 3
PES 331 Electricity and Magnetism I 3
PES 341 Thermodynamics and Statistical Mechanics . . . 3
PES 481 Senior Physics Seminar 2
Total 33

Other Required Core Areas
MATH 135, 136 Calculus I, II 8
MATH 235 Calculus III 4
MATH 340. Differential Equations 3
CS 105, 106, 107 or 115 Programming Language 3
CHEM 103, 106 General Chemistry I, II 10
ENGL 131, 141 Composition I, II 6
ENGL 307 Business and Administrative Writing **OR**
ENGL 309 Technical Writing and Presentation 3

Required Courses within the Chosen Option

In addition to the above core requirements, students will complete required courses for one of three options: Traditional Physics, Solid State Physics, or Energy Science.

Traditional Physics Option

This program is designed for students intending graduate studies in physics or planning to obtain an industrial position with a traditional physics degree. This option requires a minimum of 18 credit hours of courses in addition to the core.

Required Courses
PES 325 Mathematical Methods of Physics 3
PES 332 Electricity and Magnetism II 3
PES 425 Quantum Mechanics 3
PES 451 Optics 3

Also, the traditional physics option requires a minimum of three upper-division hours of mathematics in addition to MATH 340.

Elective Courses
A minimum of three credit hours from the following PES courses must be taken:
PES 306 Astrophysics 3
PES 365 Nuclear Physics and Energy Technology 3
PES 370 Acoustics 2
PES 395, 396, 397 Special Topics (variable credit, maximum of 6 hours allowed)
PES 415 Solid State Laboratory 2
PES 426 Quantum Mechanics II 3
PES 430 Celestial Mechanics 3
PES 446 Solid State Physics 3
PES 449 Physics of Thin Films 3/4
PES 472 Stellar Structure and Evolution 3
PES 485 Senior Project (variable credit, maximum of 6 hours allowed)

Other elective courses may be substituted with the written approval of the department chair.

Solid State Physics Option

This option is designed for students presently employed by or intending employment in the semiconductor industry. It will provide theoretical foundations and practical experience in solid state physics.

This option requires a minimum of 20 credit hours of courses in addition to the core.

Required Courses
PES 325 Mathematical Methods of Physics 3
PES 332 Electricity and Magnetism II 3
PES 415 Solid State Laboratory 2
PES 425 Quantum Mechanics 3
PES 446 Solid State Physics 3

Elective Courses
This option also requires the completion of a minimum of six hours from the following technical electives:
PES 426 Quantum Mechanics II 3
PES 448 Surface and Interface Physics 3
PES 449 Physics of Thin Films 3/4
CHEM 301 Materials Science 3
CHEM 451 Physical Chemistry I 4
CHEM 452 Physical Chemistry II 4
ECE 2410 Circuit Analysis I 3
ECE 3020 Intro to Semiconductors 2
ECE 4020 Introduction to Semiconductor Devices 3
MATH 381 Probability Theory 3
MATH 445 Complex Variables 3
MATH 447 Applied Mathematics 3
C S 316 Programming Languages 3
C S 460 Numerical Computing 3
C S 472 Design and Analysis of Algorithms 3

Other elective courses may be substituted with the written approval of the department chair.

Energy Science Option

This option will prepare graduates for energy-related careers in industry and government and will provide the student with a strong background in the technical, economic, and instrumentation aspects of all energy resources.

This option requires a minimum of 19 hours of courses in addition to the core.

Required Courses
PES 250 Energy Fundamentals 3
ECON 101 Microeconomics 3
GEOL 101 Physical Geology (with lab) 4

Elective Courses
Students in this option are required to complete 9 hours from the following technical electives.
PES 332 Electricity and Magnetism 3
PES 361 Solar Engineering Design 3
PES 365 Nuclear Physics and Energy Technology 3
PES 367 Wind Energy 3
PES 460 Advanced Solar Energy 3
GEOL 312 Structural Geology I 5
GES 320 Practical Meteorology 4
GES 406 Introduction to Remote Sensing 4
GES 409 Advance Remote Sensing 4

Other elective courses may be substituted with the written approval of the department chair.

Minor in Physics or Energy Science

Students may earn a minor in physics by taking PES 111, 112, 213, 313 and any other six hours of upper-division physics courses. This is a total of 20 hours. A grade of C or better is required in these courses. A minor in energy science is available and is discussed in detail in the energy science section of this *Bulletin*.

Physics, Graduate Study

There are several options for graduate studies in physics. Students may obtain a Master of Sciences (MSc) All of the courses are taken at UCCS, and thesis work may be done with a professor or in conjunction with an adjoint professor who is employed in a local solid state, optics, or space industry. More details on this program follow below.

A Doctor of Philosophy (PhD) in physics can be obtained from the University of Colorado at Boulder with much of the coursework and the thesis done at UCCS. Each student is evaluated on the basis of his or her experience and academic grades but, in general, will be expected to complete a year of residency at Boulder as well as passing all qualifying, comprehensive, and preliminary exams at Boulder. Application to this program is made to the Boulder Physics Department with the assistance of the UCCS Physics Department.

Physics – Master of Sciences, MSc

Admission Requirements

Admission requirements into the MSc program are consistent with those specified by the UCCS Graduate School. These admission requirements of applicants are as follows:

- submit two complete official transcripts of all previous graduate and undergraduate work
- submit three letters of recommendation
- make application directly to the physics department at UCCS
- Deadlines: July 1st for fall semester, December 1st for spring semester' May 1st for summer semester.

Admission Criteria

Applicants with a BA or BS in physics or in a related area, such as chemistry, computer science, electrical engineering or mathematics, are natural candidates for graduate study in physics.

- A BS or BA degree from a college or university of recognized standing, or work equivalent to that required for such a degree and equivalent to the degree given at this university
- Considerable coursework in physics
- Sufficient mathematical background, i.e. at least two semesters of mathematics beyond the normal calculus sequence, such as differential equations and mathematical methods of physics.
- Promise of ability to pursue advanced study and research
- Undergraduate grade point average of at least 3.0 on a 4.0 scale.

Students with an undergraduate grade point average of less than 3.0 but at or above 2.5, or students with an inadequate background, may be allowed into the program provisionally. This decision would be made by the Physics Graduate Student Committee. Provisional status would subsequently be removed and a student given regular standing after completion of nine hours of graduate courses with a 3.0 average (or better).

Transfer Student Requirements

Students who are transferring from other physics graduate programs must meet the minimum standards outlined above and, in addition, have a 3.0 average (or better) in all graduate work done previously. Full credit, up to nine hours (normally one semester of full-time coursework), will be given for coursework done previously, assuming the prior work is done at accredited institutions with approved programs. Course equivalency will be decided by the UCCS Physics Graduate Student Committee after interviewing the student and comparing textbooks, class notes, or any other helpful documentation.

Degree Requirements

- 30 hours of coursework, either 24 credit hours of coursework plus six hours of thesis work **(the thesis option)** or 30 credit hours of coursework without a thesis **(the non-thesis option)**.
- Regular degree students must maintain at least a 3.0 grade point average each semester or summer term on all work taken, whether or not it is to be applied toward the advanced degree intended. Students who fail to maintain this standard of performance will be subject to suspension from the Graduate School.
- Master's Comprehensive Exam, an exit oral exam that must be passed by all students. Students electing the thesis option may substitute an oral defense of their thesis. The committees for exit exams will consist of three members of the graduate faculty, one of whom is the student's adviser. The other two members will typically be from the physics department, but one may be selected from a related discipline such as electrical engineering, mathematics, computer science or chemistry.

Degree Options

Thesis and Non-Thesis: For the thesis option, the student must take 24 credit hours. Thesis work is an additional six hours (three credits per semester) for a total of 30 credit hours. The non-thesis option requires 30 credit hours from the approved courses.

Concentration areas: In order to design a more specialized degree, students may concentrate their elective courses in areas outside of physics. Concentration areas could include space studies, electrical engineering, mechanical

engineering, geography, computer science, applied mathematics or other graduate disciplines. These concentration areas might be appropriate for students who have very well-defined career objectives which require a combination of physics with another discipline. Students should consult with the Physics graduate program advisor to establish a course sequence for the MSc degree.

Master of Sciences Physics Curriculum
Approved graduate courses include:

PHYS 631 Electromagnetic Theory I 3
PHYS 632 Electromagnetic Theory II 3
PHYS 621 Theoretical Mechanics 3
PHYS 625 Quantum Mechanics I 3
PHYS 541 Statistical Mechanics 3
PHYS 503 Mathematical Methods of Physics 3
PHYS 626 Quantum Mechanics II 3
PHYS 546 Intro to Solid State Physics 3
PHYS 690 Solid State Physics I 3
PHYS 691 Solid State Physics II 3
PHYS 515 Solid State Lab 2
PHYS 549 Physics of Thin Films 4
PHYS 520 Computational Physics 3
PHYS 695 Topics in Advanced Physics 3
CS560 Numerical Computing 3
ECE 5020 Semiconductor Devices II 3
ECE 5030 Advanced Semiconductor Device Modeling . . 3
ECE 5050 Microelectronics IC Fabrication Laboratory . . 3
ECE 5070 Electronic Properties of Materials 3
MAE 5410 Fundamentals of Astrodynamics 3
MAE 5091 Space Environment 3
MATH 545/562 Functions of a Complex Variable I, II . . 3

Other elective courses may be substituted with the written approval of the graduate program advisor.

Political Science

Faculty

Professor: James Null (Chair); ***Professors Emeritus:*** James Busey and John Pierce; ***Associate Professors:*** C. David Moon and Paul Sondrol; ***Assistant Professors:*** Joshua Dunn and Patricia Keilbach; ***Instructor:*** James Colvin.

Political Science - Bachelor of Arts, BA

The BA program offers four major tracks, one general and three representing important subfields of political science: American Politics/Public Law, Global Politics, and Public Administration. All four tracks are designed to prepare students for professional careers in the public or private sector, or graduate or professional study.

Federal, state and local governments are important employers of political science graduates. In the private sector, including non-profits, the increasing interaction with government creates a growing demand for graduates with an understanding of political systems, domestically and internationally. Political Science, Law, and Public Administration are common graduate fields of study for our graduates.

Departmental Honors

The Department of Political Science offers honors for students who have demonstrated high academic achievement. In order to be awarded departmental honors, a student must:

- Have an overall CU GPA of 3.0 or better
- Have a 3.5 or better in political science courses
- EITHER enroll in P SC 450, in which students complete a major research paper; OR submit a major research paper prepared for another upper division political science course to a committee of the faculty of the department, and if the faculty deems the paper of sufficient merit, the student will be awarded honors.

The level of honors is dependent on completion these requirements, and the level of the departmental GPA. Students who meet these requirements and have a political science GPA of between 3.5 and 3.69 will received Distinction, those whose political science GPA is between 3.7 and 3.89 are eligible for High Distinction, and those with a political science GPA equal to 3.9 or above are eligible for Highest Distinction.

Internships

The department encourages all students to consider enrolling for an internship during their tenure at the university. Internships provide students "hands on" experience in the public sector, giving students a greater appreciation for the complexity of politics and policymaking and of the legal system.

The department places students in three kinds of internships: prelaw (P SC 948); legislative, with U.S. or Colorado legislators (P SC 348); and public agency internships in governmental or non-profit agencies (P SC 398).

Students may earn up to six credits in P SC 348 or 398; the prelaw internship (P SC 948) may earn up to three hours of credit. Interested students should see Professor Null.

Learning Outcomes, Political Science, BA

- Have a basic knowledge of the political institutions and processes of the government of the United States and foreign governments.
- Have a basic knowledge of the methods, approaches, or theories used in accumulating and interpreting information applicable to the discipline of Political Science [political analysis].
- Have a basic knowledge of the dynamics of politics and power at work in the modern world.
- Think critically about and find rigorously defensible answers to political questions.
- Demonstrate the basic research skills necessary to write a paper in the discipline of Political Science.
- Be prepared for advanced degrees and/or employment in a Political Science profession.

Degree Requirements

- a minimum of 36 semester hours in the discipline, of which 30 hours must be with a grade of C or better. At least 21 hours must be in upper-division courses.

BA Degree Tracks and Course Requirements

General Political Science Track

Students majoring in the general track are required to take P SC 101 and 110, or equivalent lower-division courses with the approval of the department chair; P SC 250, and either P SC 442 or 445. Students should plan to complete P SC 101, 110 and 250 prior to taking upper-division courses. In addition, students should plan to take at least one upper-division course from each subfield (American Political Institutions and Behavior, Global Politics, and Public Administration, Policy and Law).

American Politics/Public Law Track

Students majoring in the American Politics/ Public Law track are required to take P SC 101, 110, and 210 or equivalent lower-division courses with the approval of the department chair; P SC 250; either P SC 442 or 445; P SC 447; and P SC 450 or an approved equivalent. Students should plan to complete P SC 101, 110, 210 and 250 prior to taking upper-division courses. In addition, students in this track must complete three additional courses from among those listed under American Political Institutions and Behavior or Public Administration, Policy and Law.

Global Politics Track

Students majoring in the Global Politics track are required to take P SC 101 and 110, or equivalent lower-division courses with the approval of the department chair; P SC 250; P SC 421; P SC 422; and P SC 442. Students should plan to complete P SC 101, 110, and 250 prior to taking upper-division courses. In addition, students in this track must complete three additional courses from those listed under Global Politics.

Public Administration Track

Students majoring in the Public Administration track are required to take P SC 110 and 210, or equivalent lower-division courses with the approval of the department chair; P SC 250; P SC 432; P SC 445; and P SC 446. Students should plan to complete P SC 110, 210, and 250 prior to taking upper-division courses. Students in this track must complete three additional courses from among those listed under Public Administration, Policy and Law.

Minor In Political Science

Students majoring in other Letters, Arts, and Sciences disciplines may elect a minor in any of the political science tracks: political science, American politics and public law, global politics, or public administration.

A minor requires a minimum of 18 hours of coursework in political science, to include P SC 101 and P SC 110, except for the minor in public administration, which requires P SC 110 and P SC 210.

Minor Track Requirements

For the **general political science minor**, students must complete at least nine hours of upper-division coursework of their choice.

For the **American politics and public law minor**, nine hours of upper-division must come from either American Political Institutions and Behavior or Public Policy, Administration and Law.

For the **global politics minor**, at least nine hours must be selected from the global politics section.

For the **public administration minor,** students must include nine hours of upper-division coursework from Public Policy, Administration and Law.

Political Science Course Offerings

Courses at the 100 level are designed for beginning students and 200 level courses are taught at the sophomore level. Remaining courses are structured in a more advanced manner. Students without previous courses in political science should consult appropriate instructors before attempting to take courses numbered 300 and above.

American Political Institutions and Behavior

PSC 103-3 Colorado Politics
PSC 210-3 Politics and Policy in State and Local Communities
PSC 301-3 Women in Politics
PSC 303-3 Political Parties
PSC 305-3 Race and Ethnicity in American Politics
PSC 348-3 to 6. Legislative Internship
PSC 402-3 The American Congress
PSC 404-3 Political Interest Groups
PSC 405-3 Public Opinion and Political Behavior
PSC 408-3 U.S. Electoral Process
PSC 439-3 The Presidency
PSC 440-3 Government and Society

Global Politics

PSC 311-3 Emerging Nations
PSC 321-3 Western European Political Systems
PSC 322-3 Eastern European Political Systems
PSC 413-3 Latin American Politics and Development
PSC 418 Gender in International Politics
PSC 421-3 International Politics
PSC 422-3 Comparative Politics
PSC 423-3 The United States in World Politics
PSC 424-3 Russian Foreign Policy
PSC 425-3 International Law
PSC 426-3 International Organizations
PSC 427-3 Latin America in World Politics
PSC 429 International Environmental Politics
PSC 434-3 National Security Organization and Policymaking
PSC 453 Model United Nations

Public Policy, Administration and Law

PSC 330-3 The Bureaucrats
PSC 398-3 or 6 Public Administration Internship

P SC 406-3 State Political Systems
PSC 407-3 Urban Politics
PSC 432-3 Public Administration
PSC 435-3 Environmental Policies and Administration
PSC 446-3 Administrative Law
PSC 447-3 Introduction to Constitutional Law
PSC 448-3 Constitution and Individual Rights
PSC 449-3 The Judicial System
PSC 451-3 Defendant's Constitutional Rights
PSC 948-3 or 6 Prelaw Internship

Other Courses
P SC 498-1 to 3 Special Problems in Political Science
P SC 940-1 to 3 Independent Study

Prelaw Minor

Students planning to attend law school should consult with Professor Dunn, prelaw advisor.

Pre-Law is an interdisciplinary minor for students either seeking a pre-law minor as a preparation for law school or pursuing study for general interest. The Pre-law minor includes courses from seven departments.

LSAT preparation courses are routinely offered through the college's Extended Studies program.

Requirements for the Minor

- complete a minimum of 18 credit hours, 12 of which must be upper-division courses, and all of which must be completed in at least three of the seven departments that participate in the program (Communication, Economics, Philosophy, Political Science, Psychology, Sociology, and Women's Studies)

Special Topic courses offered in the departments that are not listed here and that might qualify require the consent of the Director of the Pre-law Minor, Raphael Sassower.

Pre-Law Minor Courses
COMM 400 – Rhetorical Dimensions in Communication
COMM 420 – Persuasion
COMM 475 – Communication Law
ECON 385 – Law and Economics
PHIL 112 – Critical Thinking
PHIL 320 – Politics and the Law
PHIL 344 – Symbolic Logic
PHIL 426 – Philosophy of Law
PSC 110 – The American Political System
PSC 210 – Politics and Policy in State and Local Communities
PSC 402 – The American Congress
PSC 408 – US Electoral Process
PSC 425 – International Law
PSC 442 – Political Ideas
PSC 445 – American Political Thought
P SC 446 – Administrative Law
PSC 447 – Introduction to Constitutional Law
PSC 448 – The Constitution and Individual Rights
PSC 449 – The Judicial System
PSC 451 – Defendant's Constitutional Rights
PSY 394 – Psychology and the Law
SOC 340 – Criminology
SOC 341 – Sociology of Law
SOC 452 – Sociology of Corrections and Rehabilitation
SOC 496 – Juvenile Delinquency
WMST 301 – Women in Politics
WMST 325 – Power, Privilege, and Social Difference

Psychology

Faculty

Professors: Charles Benight, Frederick Coolidge, Hasker Davis, Edith Greene, Tom Pyszczynski, Sara Qualls and Sandy Wurtele; ***Associate Professors:*** Robert Durham, Kelli Klebe (Chair), and Dan Segal; ***Assistant Professors:*** Leilani Feliciano, Livia Gilstrap, Lori James, Michael Kisley and Brian Yochim; ***Research Assistant Professor:*** R. Elizabeth Cornwell.

Psychology – Bachelor of Arts, BA

Learning Outcomes, BA, Psychology

- Display knowledge of several areas of specialization in Psychology (i.e., abnormal, biopsychology, cognitive, developmental, measurement, methodology, personality, social)
- Demonstrate competence in scientific reasoning, information gathering, and writing skills. Following the American Psychological Association guidelines, students will utilize their scientific reasoning skills to write a research article based on a literature search using information-gathering skills (e.g., library, internet, etc.)
- Psychology majors will find their course of study to be used in obtaining employment or pursuing an advanced degree.

BA Honors Program
In addition to the normal undergraduate curriculum in psychology, the department offers interested and qualified undergraduates an opportunity to further increase the breadth and depth of their psychological training through the Departmental Honors Program. Prior to or during the first semester of the junior year, interested students should contact any psychology faculty member regarding the prospect of departmental honors work .

BA General Degree Requirements

- At least 36 hours and not more than 54 hours of psychology courses, of which at least 18 must be in upper-division courses (300/400 level)
- A grade of at least C- in the three required core courses, the four core content courses, and the one Advanced Seminar
- Accountability examination: All graduating psychology majors will take an "Accountability

Examination." The examination samples the student's understanding of the core content areas. Students can sign up to take the exam in the department office during their senior year. The exam is given several times during each semester.

BA Course Requirements

BA students should begin their studies with the **four required courses:**

- PSY 100 General Psychology
- PSY 110 Profession of Psychology
- PSY 210 Introduction to Psychological Statistics
- PSY 211 Introduction to Psychological Research and Measurement.

Beyond the introduction and methodology courses, students are required to take four courses from the **seven core content areas:**

- Abnormal (PSY 328)
- Personality (PSY 324)
- Developmental (PSY 362)
- Social (PSY 340)
- Cognition and Learning, (PSY 313, 314, or 320)
- Biopsychology (PSY 327).

Students are also required to take one **Advanced Seminar.**

Other psychology courses taken by the students should be planned with the student's advisor.

Minor in Psychology

The minor in psychology consists of at least 20 hours of psychology courses, of which nine must be upper-division courses (300/400 level). Students should begin their studies with two required courses, PSY 100 General Psychology, and PSY 210 Introduction to Psychological Statistics. Minor students may substitute an equivalent statistics course taken from another major area for PSY 210. Students are also required to take two of the seven core content courses (Abnormal, Personality, Developmental, Social, Cognitive, Learning, and Biopsychology).

Psychology minors must earn a grade of at least C- in the two required and core content courses. In addition to these guidelines, students should follow the general guidelines for minors in the College of Letters, Arts, and Sciences.

Psychology – Master of Arts, MA

The Department of Psychology offers coursework and thesis supervision for a master of arts degree. The program offers two tracks: clinical, and general experimental psychology with various subspecialties such as neuropsychology, social psychology, program evaluation, psychology and the law, psychometric theory, memory and aging, and cognitive development. Both tracks are designed to prepare students for doctoral programs. A majority of students are subsequently accepted into doctoral programs. The program is designed to be completed in two academic years and includes a thesis requirement.

Learning Outcomes, MA, Psychology

- Demonstrate competency in conducting scientific research.
- Prepare students for doctoral degrees in psychology or related fields.
- Develop clinical competency of the students in the clinical track.

MA Prerequisites

- A BS or BA degree or its equivalent from an accredited college or university
- An overall average of B or above in all undergraduate courses
- Graduate Record Exam scores of at least 1100 cumulative on the verbal and quantitative sections. The advanced psychology test is strongly recommended
- An adequate undergraduate program in psychology including college-level mathematics, statistics, experimental psychology, and some background in the biological, physical, and social sciences.
- Applicants to the clinical track should also have coursework and community experience in applied psychology.

Promising students who do not meet all the requirements may be considered as applicants. Admission to the program is competitive.

Application Material and Deadline

The application deadline for fall admission is January 1.

For information and application for the Master's program, see the following website: www.uccs.edu/psych/pages/maapply.htm.

Doctor of Philosophy – Clinical Psychology with emphasis in Geropsychology, PhD

The Department of Psychology offers coursework and dissertation supervision for a Doctorate of Philosophy degree. The program is designed to produce specialists in the normal and abnormal psychological processes that accompany aging (Geropsychology). The program trains students in mental health assessment and intervention for older adults, and basic and applied research on the psychological functioning, social psychology, psychology and law, program evaluation, and cognition. For more information on faculty and their area of specialization, see www. uccs.edu/-psych/faculty/faculty.htm.

Students will be trained to work in a range of settings, including mental health clinics, clinical practices, hospitals, nursing homes, colleges and universities, state offices, research institutes, and as consultants to a wide variety of housing and social service providers to older adults.

Learning Outcomes, PhD, emphasis in Geropsychology

- Students will know how aging affects basic psychological processes such as memory, emotions, problem-solving, self-esteem, relationship development, and mental health.
- Students will know how to conduct and evaluate the efficacy of assessments and interventions used in clinical work with older adults and their families.
- Students will obtain advanced knowledge about the paradigms for studying aging and human behavior within core sub-disciplines of psychology (e.g., cognitive, physiological, motivational, personality, developmental, social) in order to develop expertise in a focused area.
- Students will be skilled in research paradigms, methodologies, and techniques (e.g., statistics, research methods, and measurement) that are needed to examine age-related changes in psychological functioning and the effects of interventions.
- Students will be skilled in applying basic research and theory to current problems faced by older adults.
- Students will be socialized into the professional values and standards of conduct in the field, including ethical standards of professional behavior for service providers, professors, and researchers.

Program Requirements

Although the specialty focus of this program is in geropsychology, the students must have a solid base in the general knowledge of psychology. Students must demonstrate competence in basic psychology, as well as geropsychology. Students entering this program are essentially agreeing to focus their work on aging rather than sampling the variety of populations and problems that might form the elective offerings in another program.

The clinical program adheres to the scientist-practitioner model of training, commonly referred to as the Boulder model. Under this model, professional psychologists are trained to be both scientists and practitioners with the goal of enhancing the interplay between science and practice.

The clinical curriculum will require at least five years of post-baccalaureate work to accomplish requirements of the doctoral degree. Students complete required and elective courses, a comprehensive exam, a dissertation of original scholarship. The clinical curriculum requires specific coursework required for licensure and accreditation, a clinical practica, and an offsite fifth year internship. Students who enter the program with a BA or BS degree will earn an MA en route to the doctoral degree through the mechanism of the existing MA program.

Admissions Requirements

Applicants should have the following credentials:

- A BS or BA degree or its equivalent from an accredited college or university.
- An overall average of 3.0 ("A" is equivalent to 4.0) or above in all undergraduate courses, and 3.5 or better on all graduate coursework.
- Graduate Record Exam scores of at least 1200 cumulative on the verbal and quantitative sections. The advanced psychology test is strongly recommended.
- An adequate undergraduate program in psychology including college-level mathematics, statistics, experimental psychology, and some background in the biological, physical, and social sciences.
- Applicants should have career goals consistent with the program specialization in geropsychology.

Promising students who do not meet all the requirements may be considered as applicants.

Applicants with previous graduate course-work or degree may request a review of their transcript and related materials to determine whether specific courses or thesis requirements may be waived.

Application Material and Deadlines

The application deadlines for Fall admission each year is January 1st. See the following website for an online application: www.uccs.edu/--psych/pages/phd_apply.htm

Accreditation

The PhD in Psychology is accredited by the American Psychology Association and the American Psychological Society.

Contact Information

Questions concerning the Geropsychology program can also be addressed by calling (719) 262-4500 or emailing ddubois@uccs.edu.

All written correspondence and credentials should be mailed to:

Geropsychology Doctoral Program
Departments of Psychology
UCCS
1420 Austin Bluffs Parkway
Colorado Springs, CO 80933-7150

Sociology

Faculty

Professors Emeritus: Jay Coakley and Robert Hughes; ***Professor Emerita:*** Barbara Lorch; ***Professors:*** Richard Dukes, and Kee Warner; ***Associate Professors:*** Lynda Dickson (Chair), and Abby Ferber; ***Assistant Professors:*** Heather Albanesi, Michele Companion, Aditi Mitra and Edwardo Portillos; ***Instructors:*** Kate Lane and Patricia Walker.

Sociology – Bachelor of Arts

Learning Outcomes, BA, Sociology

- To read critically, write in a clear logical manner, and verbally communicate clearly and effectively
- To show broad knowledge about society and social behavior and provide credible explanations that explain how and why social development has taken a particular direction
- To analyze, understand and assess the complexity of the human experience as related to social institutions
- To analyze and describe how we developed as a people or society, including the social phenomena of racism, sexism, and other forms of structured inequality
- To identify and critically assess ethnocentrism
- To apply analytic, evaluative, and critical skills in the collection and analysis of sociological data.

General Requirements

- a minimum of 36 hours in Sociology, at least 18 hours of which must be upper-division courses (300 or 400 level). Courses at the 500 level may be taken by qualified undergraduates with the consent of the instructor
- Completing the Sociology Field Test from Educational Testing Services during the final semester of course work. Dates and times for the test will be announced.

Course Requirements

Required Core Courses (16 credit hours)

SOC 111 Introduction to Sociology 4
SOC 212 Introduction to Social Research. 4
SOC 315 Modern Sociological Theory 4
SOC 317 Social Statistics 4

Three courses selected from the following (9 credit hours)

SOC 322 Community and Urban Sociology 3
SOC 329 Perspectives on Race and Ethnicity 3
SOC 341 Sociology of Law 3
SOC 404 Sociology of Gender and Sexuality 3
SOC 417 Advanced Statistics and Methods. 3
SOC 420 Sociology and Poverty 3
SOC 432 Sociology and Religion. 3
SOC 496 Juvenile Delinquency. 3
Or approved upper division Sociology alternative

Certificate Programs

Certificate in the Sociology of Diversity

The Sociology Department has a strong emphasis in diversity and inequality issues, highlighting race and ethnicity, gender, sexuality, and class. For sociology majors, minors, and other students wishing to concentrate in these areas, we offer a certificate of specialization. Completion of the certificate provides evidence of specialized study, which can be beneficial for enhancing future career options and interests. The certificate is marketable to a wide variety of employers and educational institutions, including social work, graduate and professional schools, community action organizations, and social services. Participation in the certification program also provides students with opportunities for networking and mentoring. Dr. Abby Ferber is the co-coordinator of the Certificate in the Sociology of Diversity.

General Requirements

- Minimum requirement for completion: four courses, for a total of twelve credits.
- A minimum grade of 3.3 is required for each course applied toward the certificate.
- All courses must be at 300 level or above in Sociology; independent studies may not be used to earn this certificate.

All courses must be offered through the Sociology department upon approval of the Certificate Coordinator. Up to three Sociology transfer credits may be applied to the certificate.

Course Requirements

Students must take at least one course from each of the categories below:

Race and Class
SOC 220 – Intro to Racial and Ethnic Groups
SOC 321 – American Minority Communities
SOC 323 – The Chicano Community
SOC 324 – African-American Community
SOC 325 – Power, Privilege, and Social Difference
SOC 329 - Perspectives on Race and Ethnic Relations
SOC 431 – Social Inequalities

Gender and Sexuality
SOC 211 - Sex and Society
SOC 225 - Images of Women in Society
SOC 361 - Gender and Society
SOC 404 - Sociology of Gender & Sexuality
SOC 408 – Sociology of Men's Lives

Additional special topic courses may be offered that can be counted toward the certificate. These courses must be approved in advance by the Certificate Coordinator.

Certificate in Criminology and Justice Studies

The Sociology Department has a strong emphasis in multiple aspects of the criminal justice system, highlighting the impact of law and society, corrections systems, and structures of deviance in the social order.

For students wishing to concentrate in these areas, we offer a certificate of specialization. Completion of the certificate provides evidence of specialized study, which can be beneficial for enhancing future career options and interests. The certificate is marketable to a wide variety of employers and educational institutions, including the Department of Corrections, law enforcement, law school, social work, graduate and professional schools, and social services. Participation in the certification program also provides students with opportunities for networking and mentoring.

Dr. Michele Companion is the coordinator of the Certificate in Criminology and Justice Studies.

General Requirements

- Minimum requirement for completion: four courses, for a total of twelve credits.
- A minimum grade of 3.3 is required for each course applied toward the certificate.
- All courses must be at 300 level or above in Sociology; independent studies may not be used to earn this certificate.

All courses must be offered through the Sociology department upon approval of the Certificate Coordinator. Upon approval by Certificate Coordinator, up to three Sociology transfer credits may be applied to the certificate.

Course Requirements

SOC 341 (Sociology of Law)
SOC 340 (Criminology)

Additional courses that are eligible to fulfill this requirement include, but are not limited to, the following:

SOC 419 – Deviant Behavior
SOC 452 - Sociology of Corrections and Rehabilitation
SOC 496 – Juvenile Delinquency

Additional special topic courses may be offered in a given semester that can be counted toward the certificate. These courses must be approved in advance by the Certificate Coordinator.

Certification Process

Students wishing to enroll in a certificate program must turn in an application to the Certificate Coordinator, ideally when they declare their major. Students are strongly encouraged to enroll by their junior year to ensure that certificate requirements are met. Students that are not sociology majors or minors must complete 3 credit hours of additional lower division sociology credit before enrolling in the certificate program.

Students must submit their transcript to the coordinator to verify that they have met the requirements for the certificate at the beginning of their final semester. To complete the certificate program, students are required to submit a five-page, typewritten self-statement, evaluating changes in their perceptions of diversity issues as a result of program participation and implications for future scholarly and professional work. The certificate will be mailed to recipients upon completion of a certificate audit and graduation.

Minor in Sociology

Students seeking a minor must complete a minimum of 22 hours in sociology, at least 12 hours of which must be upper-division courses (300 or 400 level). Specific courses which must be completed for the minor include the following: SOC 111 (Introduction to Sociology), SOC 212 (Introduction to Social Research), and either SOC 315 (Modern Social Theory) or SOC 317 (Social Statistics). The remaining 12 hours should be chosen according to the student's academic interests and goals. Students may consult with sociology faculty to identify courses that best address their academic and professional interests.

Master of Arts in Sociology, MA

The Department of Sociology offers a Master of Arts degree in Sociology. All coursework for the MA degree can be taken on the Colorado Springs campus, although students may take appropriate and approved courses at the Denver or Boulder campuses. Admission to the MA program in Colorado Springs does not constitute admission to the graduate programs at Denver or Boulder.

Learning Outcomes, MA, Sociology

- Student knows about sociological concepts, research methods, theories and sociological studies.
- Student can explain sociological concepts, research methods, theories and sociological studies.
- Student can apply a sociological approach to an area of study, including concepts, research methods, theories and sociological studies.
- Student can compare and contrast sociological concepts, research methods, theories and sociological studies in a context that pertains to sociology.
- Student can combine basic sociological concepts, research methods, theories and sociological studies in a context that pertains to sociology.
- Student can appraise the usefulness of sociological concepts, research methods, theories and sociological studies in a context that pertains to sociology.
- Student shows an awareness of the sociological perspective and shows an awareness of different points of view regarding diversity issues
- Student shows motivation to learn more about the sociological perspective and about diversity issues
- Student identifies the sociological perspective as a valuable way of interpreting human interaction and shows that she values diversity
- Student integrates the sociological perspective into

her value system, creates a balance between freedom and responsibility, and creates a personal value system that integrates diversity into it.

- Student uses the sociological perspective to guide behavior and is consistent in her value of diversity.
- Student chooses appropriate mode of inquiry such as reading, writing or analysis of data and is able to choose an appropriate computer program for accessing information (reading), word processing (writing) or for manipulating data (quantitative or qualitative analysis).
- Student recognizes her abilities to select and use the appropriate computer program.
- Student follows the sequence required to use effectively the three types of programs.
- Student shows proficiency and confidence in using the three types of programs.
- Student builds reviews of literature, written papers, and analyses using the appropriate program(s).
- Student adapts her use of programs to extend their usefulness and creates new ways of using the programs.

MA Application and Admission

The student is referred to the Graduate School section of this course *Bulletin* for a complete listing of all rules and regulations that apply to MA programs on this campus of the University of Colorado.

Regular Degree Admission Requirements

Students applying to the MA degree in Sociology should have:

- a baccalaureate degree from an accredited college or university or have completed work equivalent for such a degree and equivalent to the degree given at this university
- an undergraduate grade-point average of at least 2.75
- adequate preparation to begin graduate study in sociology
- show promise for advanced study and research, as judged by the applicant's previous scholastic record

Application Process

- Submit three letters of recommendation from instructors or employers
- Completed the Graduate Record Exam
- Be recommended for admission to a regular degree status by the Graduate Faculty in the Department of Sociology.

Information and applications for admissions may be obtained from Shari Patterson, Graduate Program Coordinator, Department of Sociology, UCCS.

Admission as a Provisional Degree Student

An applicant who does not meet the minimum requirements for admission as a regular degree student may be admitted on a provisional basis. To convert to regular degree status the student may be required to complete courses to make up deficiencies and/or demonstrate the ability to successfully perform graduate work.

Guaranteed Admission Policy

Students who complete a major in Sociology at UCCS and achieve a minimum grade point average of 3.2 overall and a 3.33 in sociology will be guaranteed admission to the Department's MA program. For students meeting these requirements, the Graduate Record Exam (GRE) and letters of recommendation will be waived. Students who do not meet these requirements will be guaranteed provisional admission to the MA program if they have at least a 2.75 GPA and an acceptable score on the GRE, and they are deemed to have adequate preparation to begin graduate study in sociology.

Five-Year Program

The traditional MA program in Sociology is designed to allow completion in one year (fall, spring and summer semesters) of full-time study by those who have a strong background in Sociology. The possibility of completing the MA degree with only a 5th year of study is enhanced for students who complete appropriate graduate level courses while an undergraduate, if these courses are not counted toward the total number of hours required for completing the BA degree. Students may apply for up to eight hours of such course work to be counted toward fulfilling the MA requirements, in much the same manner as graduate credits earned in graduate programs in other departments may be transferred toward the MA degree in sociology.

Financial Assistance

A limited number of graduate assistantships for new and continuing students are available from the Sociology Department. These are awarded on the basis of both need and merit in compensation for assisting with departmental programs of instruction and research. Contact the Sociology Office for application forms and deadlines. Additional support may be available from the Graduate School.

General Requirements

There are two options for completing the requirements for the degree:

Plan I - Thesis: complete a total of 24 hours of approved course work, including the required courses, plus an acceptable thesis for 6 hours of credit.

Plan II - Non-Thesis: complete a total of 30 hours of approved course work, including the required core sociology courses. Students are encouraged to develop individualized areas of concentration with their elective credits. Elective coursework may include approved courses from other UCCS Graduate programs, for example the Graduate School of Public Affairs, Applied Geography and the College of Education.

Required Exams
All MA students must pass the Preliminary and Qualifying Exams and either a Thesis Defense or a Comprehensive Examination, as defined below.

The Qualifying Examination: Students' progress will be reviewed after completion of the first 6 hours of graduate level courses to ensure adequate qualifications to proceed in the program. Students found to be not well prepared in statistics will be required to take SOC 502 and those not well prepared in social theory will be required to take SOC 503. Students will be notified of the results of this review process and appropriate recommendations for further progress will be included.

The Preliminary Examination: After completing 18 graduate hours, including the required core sociology courses, students must prepare an admission to candidacy form (available from Shari Patterson, Graduate Program Coordinator). The student's academic record will be reviewed and a plan for either a thesis (Plan I) or coursework (Plan II) must be approved to continue in the program. If problems are identified, appropriate steps will be specified in order to become a candidate for the degree.

Plan I: Thesis Defense: Upon completion of the master's thesis and approval of the Chair of the thesis committee a defense is scheduled. The goal of the defense is to provide for a thorough discussion of the thesis project, and exploration of issues and implications for continued research in the thesis topic.

OR

Plan II: Comprehensive Examination: The comprehensive examination is based on a discussion of the materials provided by the student in her/his graduate student portfolio. Portfolios should be turned in to the graduate program coordinator two weeks before the comprehensive examination. Portfolios are not returned to the student, but become part of the graduate archive in the sociology department.

Required MA Core Courses
SOC 505-1 Proseminar in Sociology
SOC 507-4 Seminar on Research Methods
SOC 516-3 Seminar on Social Theory II
(Students that have not taken an undergraduate course in Social Theory are also required to take SOC 515-3 Seminar in Social Theory I.)
SOC 517-4 Seminar on Advanced Statistics and Research Methods OR SOC 518-3 Seminar: Community Organization and Analysis

Sustainable Development

Sustainable Development is an interdisciplinary minor involving courses on sustainability and environmental studies from eleven departments. Experiential, project-based and service learning will be encouraged. Expected outcomes from this initiative include the following: Increased contributions to UCCS and local organizations on environmental issues and projects that seek to increase fair and equitable working and living conditions for all; and, most importantly, more responsible, active global citizens.

Sustainable Development, minor

Learning Outcomes, Sustainable Development

- Identify core concepts of sustainable development
- Describe interconnections between community structures and influences on the environment
- Examine the environmental, economic, and social sustainability from multiple academic disciplines
- Understand the disciplinary overlap of sustainability issues and approach holistic real-world problems from diverse perspectives
- Critically read, evaluate, and discuss sustainable development literature
- Demonstrate knowledge of the ever-increasing scholarship within the sustainable development literature

General Requirements for the Minor

- A minimum of 18 credit hours, 12 of which must be upper division courses
- Coursework must be completed in a minimum of three of the departments in LAS or Business that participate in the program: Biology/ Chemistry, Communication, Economics, Geography and Environmental Studies, History, Philosophy, Political Science, Physics and Energy Sciences, Sociology, and Organization and Management.

Qualifying Courses for the Minor
Special topic courses, internships, independent studies or other courses offered in these departments that are not listed here that might qualify require the consent of the Director of the Sustainable Development Minor.
BIOL 375 Conservation Biology (cross-listed also as GES 375)
CHEM/BIOL 151 & 153 Lab-Environmental Science
CHEM 341 Environmental Chemistry (science majors)
COMM 429 Sustainability and Corporate Social Responsibility
ECON 100 The Economics of Social Issues
ECON 330 Environmental Economics
HIST 489 Environmental History: The West and the World
GES 100 Environmental Systems: Climate and Vegetation
GES 210 Humans and Environments
GES 350 Nature and Society
GES 434 Soils
GES 417 Writing Place
GES 441 Resource Management and Conservation
GES 445 Analysis of Environmental Systems
GES 448 Environmental Problems of Colorado
GES 450 Water Resources and Water Problems
GES 451 Applied Hydrology
GES 455 Disasters and Society

GES 456 Cultural and Political Ecology
GES 470 Geographical Issues: Saving Place
GES 475 Recreation, Tourism, and the Environment
PES 150 Introduction to Energy Science
PES 151 Introduction to Energy Science II
PES 250 Energy Fundamentals
PHIL 414 Environmental Philosophy
PSC 429 International Environmental Politics
PSC 435 Environmental Policies and Administration
SOC 222 Communities in a Global Environment
SOC 422 Sustainable Urban Development
SOC 438 Globalization and Development
HRMG 485 Directed Research in Human Resources and Management
*The major project for this course must be on a topic related to Sustainable Development

Theatre

For information on Theatre Studies, see Visual and Performing Arts (VAPA)

Visual and Performing Arts

Faculty

Professor Emeritus: Louis Cicotello; ***Professors Emerita:*** Julia Hoerner and Lin Fife; ***Professor:*** Robert von Dassanowsky; ***Associate Professors:*** Valerie Brodar, Suzanne MacAulay (Chair), and Teresa Meadows; ***Assistant Professors:*** Elissa Auther, Laura Tesman, and Glen Whitehead; ***Assistant Professors Attendant Rank:*** Kathryn Andrus and Murray Ross; ***Senior Instructors:*** Lenore Mckerlie and Curtis Smith; ***Instructors:*** Carol Dass and Michael Stansbery; ***Director, Gallery of Contemporary Art:*** Christopher Lynn; ***Producing Director, Theatreworks:*** Drew Martorella.

Visual and Performing Arts – Bachelor of Arts

The Visual and Performing Arts Department offers a cross-disciplinary degree that encourages innovative collaboration between disciplines. This focus integrates art history, film studies, museum and gallery practice, music, theatre, and visual arts. Students complete this degree with a primary concentration in one area and develop a comprehensive knowledge in each of the major disciplines. Through studio arts, performance, theory, scholarship, and creative uses of media and technology, students will engage in an investigative approach to the arts, where the local and global converge; where cross-fertilization inspires critical thinking, dialogue and improvisation; and where diversity of thought is intrinsic to artistic process and practice. When students complete this degree, they will have the skills and knowledge to enter graduate school or a variety of careers in the arts.

The Gallery of Contemporary Art, the Heller Center for Arts & Humanities, Theatreworks, and the Visual Resource Center offer students opportunities and venues for professional practice and interactions with visiting artists and scholars.

Departmental Policies

Arts Fees

A program fee of $40 per semester will be assessed to all students enrolled in Visual and Performing Arts courses. In addition, students enrolled in certain courses will be assessed fees to help defray the cost of supplies. Course fees range from $10-$30 per class per semester with a $40 maximum total fee per semester. There is a full refund of the deposit for courses dropped the first two weeks of the term.

Learning Outcomes, Visual and Performing Arts, BA

- Comprehension & development: perceptions concerning changes in attitude toward certain areas of performance vis-à-vis understanding and greater tolerance for innovation and experimentation.
- Identity: perceiving that one is a member of a department or campus culture with shared interests in the exchange of ideas about performing arts and attending local performances and art events.
- Knowledge: able to recognize aesthetic criteria, genres, and goals of different types of performative acts in a variety of contexts. Understand basic characteristics of performance and their application cross-culturally and across disciplines.
- Analysis: able to critique indirect outcomes of art and performance (e.g., parody and satire, cultural representation, improvisation, subversion, etc.).
- Critical interpretive, analytical and research skills: able to describe, interpret, and evaluate a research topic, artwork, performance, etc.
- Research skills: ability to use the full range of available resources to understand the complexity of any given topic and to generate the necessary knowledge and evidence to create a compelling project and coherent research paper.

General Degree Requirements

The Visual and Performing Arts degree is composed of a primary concentration and a group of core VAPA and interdisciplinary courses. The following distribution outlines the requirements for the degree.

60 credit hours total:
36 Primary Field (max 42)
3 VAPA Foundation
6 VAPA Upper-division
3 VAPA Capstone
6-12 credits secondary field courses (lower and upper division credits)

VAPA major with Art History Option

General Requirements

Students intending to earn a Bachelor of Visual and

Performing Arts with an Art History option must complete 57 credit hours in VAPA art history and cross-disciplinary courses.

To complete the OPTION component:

- 30 credit hours in art history courses are required, including AH 150 or AH 250, and AH 400
- 12 credit hours must come from lower division survey level courses
- 15 credit hours must come from upper division courses distributed among four different areas of study. These areas include Ancient Cultures, the Medieval World, the Art of Africa, North American Native Arts, Renaissance and Baroque Art of Europe, The Arts of the Pacific Rim, Modern European or American Art, Latin American Art, African American Art, the History of Women in the Arts, Public Art and Architecture, Art of the Contemporary Period, and Current Issues in Art History
- 9 credit hours must come from VA courses; VA courses can be selected from the following list: VA 101: Beginning Studio 2D, VA 102: Beginning Studio 3D, VA 103: Introduction to Photography, VA 104: Beginning Drawing, VA 204: Beginning Painting, VA 210: Digital Imaging, or VA 219: Weaving. Students with the proper prerequisites may elect to take upper division visual arts courses (for instance, VA 301: Advanced Drawing) to fulfill this requirement.

The CROSS-DISCIPLINARY component requires students to complete 6 credit hours within VAPA but outside art history. The art history faculty recommends courses in visual arts, film studies and museum and gallery practice for art history majors, but courses in music and theater are also appropriate.

Course Requirements

Summary of 57 credits required for the VAPA major with an art history option:

30 credits in Art History:
AH 150 or AH 250 (3 credits)
Four AH 200 level survey courses (12 credits)
Five upper division AH courses (15 credits)
Three fine arts courses (9 credits)

12 credits in VAPA core:
Introductory VAPA course (3 credits)
Two interdisciplinary upper division VAPA courses (6 credits)
Capstone VAPA course (3 credits) (AH 400 is currently the Capstone course for art history students.)

6 credits representing the Cross-disciplinary Component of VAPA:
Two cross-disciplinary electives anywhere inside VAPA but outside art history. (6 credits)

The faculty considers foreign language study in French or German to be the most appropriate for art history students.

Art history courses are offered on a rotating basis; not all courses are available every semester. Students should check the current Schedule of Courses.

TRANSFER STUDENTS NOTE: The department requires nine hours of art history coursework at UCCS as the minimum component for this option in the degree program.

VAPA major with Film Studies Option

The Film Studies option in the Visual and Performing Arts major is devoted to the study of film as a multicultural and transnational artistic discipline. The emphasis of this track is on film history, theory, and analysis. The department provides an interdisciplinary approach to the study of the moving image, which prepares the student for graduate programs in advanced film and media study or as a component to filmmaking. The Film Studies minor enriches many academic subjects and majors with its critical and multicultural exploration of cinematic expression.

General Requirements

Students intending to earn a Bachelor of Visual and Performing Arts with a Film Studies option must complete 54 credit hours in VAPA, film studies and cross-disciplinary courses.

The major option requires 30 hours of coursework in the subject beyond the Core requirements for the overall VAPA major, a total of 54 credit hours.

Required Courses

FILM 100 Introduction to Film Studies
FILM 200 Narrative Film
FILM 450 Film Theory
FILM 403 Internship in Film Studies OR FILM 940 Independent Study

Required Elective Courses

The upper division requirement: two courses in national cinemas and one course in either a specific director or a thematic/genre approach assures a varied experience of global cinema in its cultural and cinematic context. Other film studies courses explore a variety of national cinemas; offer specialized genre, period, or director study; and focus on various special topics.

Internship

Non-production (festivals, journalism, teaching assistant duties, etc.) settings are recommended for the internship experience, but a production setting is acceptable if the student has filmmaking knowledge and demonstrated ability. Independent study is restricted to majors and consists of a research project dealing with some aspect of the film studies program not covered in course offerings. The student must propose the topic to a film studies faculty member who serves as the student's instructor.

The CROSS-DISCIPLINARY component requires students to complete 6 hours within VAPA but outside the specialty of film studies. Courses in any of the departmental options of Art History, Music, Theatre, or Visual Arts are appropriate for film studies majors.

Overall Course Requirements

Summary of 54 credits required for the VAPA major with a Film option:

The required courses in FILM should be distributed as follows (36 credits):

Lower Division Requirements (6 credits)
FILM 100: Introduction to Film Studies
FILM 200: Narrative Film

Upper Division Requirements (12 credits)
2 National Cinema courses 300 level or above (6 credits)
From among: FILM 345; FILM 355; FILM 369; FILM 372; FILM 373; FILM 385; FILM 411
1 Director or Thematic/Genre course (3 credits)
These courses will most often be FILM 390: Special Topics courses, but will also include FILM 333: Film, Video and Avant Garde, FILM 395: Women in Film, and FILM 425: Directors in Focus
FILM 450: Film Theory (3 credits)
Practical Course Requirement (3 credits)
FILM 403: Internship in Film Studies or
FILM 940: Independent Study in Film Studies
Electives in FILM (15 credits)
Required courses in the VAPA core and cross-disciplinary courses should be distributed as follows: (24 credits)

VAPA Core requirements (12 credits)
Introductory VAPA course (3 credits)
Two interdisciplinary upper-division VAPA courses (6 credits)
Capstone VAPA course (3 credits)

Cross-Disciplinary VAPA requirement (6 credits)
Two electives anywhere inside VAPA but outside FILM.

VAPA Major with Music Option

A Music Concentration is available in the VAPA interdisciplinary Arts Major. This degree track includes a program of music theory, ear training/ rhythm, computer music, instrumental and vocal performance. Filling out this curriculum is a diverse spectrum of history and musicology classes in European Classical Music, Jazz and improvised Music, Ethnomusicology, 20th Century Contemporary and Popular Music.

General Requirements

Requirements for this major also constitute classes that address interdisciplinary collaborations between music and other areas of the arts. Digital recording and computer assisted music production software is available for creative and collaborative work. In addition, topics on music and culture are explored through cross-listed classes with Ethnic Studies.

Students are required to take private lessons from professional musicians in the Front Range area and participation at a high-level in instrumental and/or choral ensembles such as the Jazz and Improvisation Ensemble, University Choir, Jazz Vocal Ensemble, Chamber Ensemble, Electro Acoustic Ensemble, Computer Music, and Music Theater Performance.

A minor in music is available; see VAPA Minor Programs below.

Music Concentration Course Requirements

VAPA requirements
VAPA 100, 105, or 110, Two upper division courses with VAPA prefix, VAPA 400-level capstone (resulting in a "senior presentation/ performance," with an interdisciplinary component)

Music core requirements
MUS 101 Music Theory I, MUS 103 Sight Singing and Ear Training I, MUS 201 Music Theory II, MUS 203 Sight Singing/ Ear and Rhythm Skills II, MUS 301 Music Theory III
Ensemble/ Composition requirements: 12 hours (2 credit each)
MUS 131 University Choir, MUS 225 Jazz and Improvisation Ensemble, MUS 230 Electro Acoustic Ensemble, MUS 235 Jazz Vocal Ensemble, MUS 240 Chamber Music
Applied Lessons: 6 credits
Extended studies MUS 150- Private Instruction (1 credit)

Music History/ Elective requirements: 6 lower division, 6 upper division
Lower division: MUS 205 History of Jazz, MUS 210 Rock and Roll Music, MUS 285 Western Music History I, MUS 215 the Computer in Music
Upper division: MUS 315 Non-Western Music, MUS 375 20th Century Experimental Music, MUS 385 Symphonic Literature (Western II), MUS 320 Advanced Computer Composition

Cross Disciplinary requirement
200/300/400 level courses in Art History, Film Studies, Museum and Gallery Practice, Theatre, or Visual Art

Music Curriculum Electives

Lower division:
MUS 100, Intro to Music;
MUS 131, University Choir;
MUS 205, History of Jazz;
MUS 210, Rock and Roll Music;
MUS 225, Jazz Ensemble.

Upper division:
MUS 375, 20th Century Music;
MUS 385, Symphonic Literature;
MUS 493 or 495, Special Topics.

VAPA major with Theatre Option

The Theatre Program offers a Major in Visual and Performing Arts with a Theatre option and a Minor in Theatre (see Visual and Performing Arts – Minors).

The basic sequence of required courses comprising the Theatre option is designed to provide the student with a theoretical/ historical grounding in the art of the theatre and the opportunity to put theories into practice in performance situations. Electives allow students to create a focus of study according to their interests. The academic theatre program will normally sponsor a student production and a theatre festival every spring semester, and encourages student-generated projects. Students may also have the opportunity to participate in productions of Theatreworks, the regional repertory company at CU-Colorado Springs. Students are advised that theatre courses, especially acting courses, are progressive and should be taken in sequence.

Requirements

The VAPA Major with a Theatre option requires a minimum of 30 (maximum 42) hours of coursework beyond the Core, 18 of which must be upper-division courses.

All students must complete the following THREE required lower-division courses:
THTR 100-3: Introduction to Theatre
THTR 200-3: Introduction to Technical Theater
THTR 202-3: Acting Workshop I

These THREE upper-division courses are also required:
THTR 320-3: History of Theater I
THTR 321-3: History of Theatre II
THTR 406-3: Directing I

And all students must participate in at minimum FIVE productions earning PRACTICUM credits in at least two areas:
THTR 339-1: Theatre Practicum
THTR 439-1: Theatre Practicum

VAPA major with Visual Art Option

The Visual Art option either as a major or minor within the cross-disciplinary VAPA degree offers students a wide range of media including digital media, drawing, painting, photography, and sculpture/installation. Students are encouraged to explore hybrid processes and collaborative relationships between the disciplines of art history, film, museum and gallery practice, music, and theatre.

Degree requirements for Visual Arts Option

Students intending to earn a Bachelor of Arts in Visual and Performing Arts with a Visual Art option must complete 60 credit hours: 36 in Visual Art, 12 in VAPA, 6 in Art History, and 6 within another VAPA option for a Cross-Disciplinary component.

Visual Art requirements: 36 credits
VA 101 Beginning Studio 2D
VA 102 Beginning Studio 3D
VA 104 Beginning Drawing
VA 398 Seminar in Studio Problems
VA 498 Professional Seminar
9 hours at the 200/300 level
12 hours at the 300/400 level

Art History requirements: 6 credits
AH 150 Art and Ideas: Michelangelo to Basquiat
AH 386 Contemporary Art

VAPA requirements: 12 credits
3 credits VAPA 100, 105, or 110
6 credits VAPA 390
3 credits VAPA 400 level capstone

Cross-Disciplinary requirements: 6 credits
200/300/400 level courses in Film Studies, Museum & Gallery Practice, Music, or Theatre

Core courses lay the foundation for the conceptual, technical, and formal skills needed for advanced work. These courses must be completed before enrolling in any 200/300/400 level visual art courses:
VA101 Beginning Studio 2D
VA102 Beginning Studio 3D
VA 104 Beginning Drawing
AH 150 Art and Ideas: Michelangelo to Basquiat
VAPA (100 level) there are a variety of courses to choose from

Upper Division Requirements:
VA 398 Seminar in Studio Problems and AH 386 Contemporary Art are companion courses and must be taken concurrently during the junior year and before VA 498
VA 498 Professional Seminar is taken the senior year
Please be aware that AH 386, VA 398, and VA 498 are only offered in the spring semester.
VAPA Capstone (will be taken concurrently with Professional Seminar)
Please note that 300/400 level VA courses may be taken twice for credit. (Except for VA 398 and VA 498)

Visual and Performing Arts – Minors

The department offers minor programs of study in all six areas of its curriculum: art history, film studies, museum and gallery practice, music, theater and visual art, as well as a cross-discipline in Visual and Performing Arts.

For information on minors not listed below, contact Suzanne MacAulay, Chair, at (719) 262-3865 or smacaula@uccs.edu.

Art History Minor

The minor in art history consists of 18 credits. Nine credits must come from lower division courses in art history (AH 150 or 250), and 9 credits must come from upper division courses in art history (AH 300 or 400).

Film Studies Minor

The Film Studies minor enriches many academic subjects and majors with its critical and multicultural exploration of cinematic expression.

The minor requires 18 hours of course work, 12 of which must be in upper division credits. Two required courses are FILM 100 Introduction to Film Studies and FILM 200 Narrative Film.

Museum Studies and Gallery Practice Minor

The minor consists of two tracks: museum studies and gallery practice. Students would fulfill requirements for one track of the minor.

GM 200, GM 404 and 405 and GM 490 (Internship at least 3 cumulative credit hours) + 6 credit hours of approved AH, VaPA Studio, or Gallery Practice and Museum Studies classes (total of 18 credit hours).

GM 200, GM 490 (Internship at least 3 cumulative credit hours), 6 credit hours Museum Studies and Gallery Practice Classes and/or 6 hours approved from Museum Studies or appropriate discipline (total of 18 credit hours).

Course Listings

GM 200 Introduction to Museum Studies and Gallery Management
GM 404 Gallery Management I
GM 405 Gallery Management II
GM 406 Exhibit Design and Development
GM 407 Collections Management
GM 408 Museum and Gallery Education
GM 409 Museum Administration
GM 420 Special Topics in Museum and Gallery Management
GM 490 Museum Studies and Gallery Management Internship
GM 940 Museum and Gallery Management Independent Study

Music Minor

The music minor includes classes in Music Theory, History, and Musicology. Participation in music ensembles, other performance opportunities and private lessons are available for students on this track.

Music Minor requires 6 credits of music theory (I&II), 3 credit lower division elective, 9 upper division credits including MUS 315 Non-Western Music

Theatre Minor

The Minor in Theatre provides a basic introduction to the various elements of theatre and allows students to develop performing skills.

The Minor in Theatre requires 18 hours of coursework, 9 of which must be upper-division courses.

All students must complete the following THREE required lower-division courses:

THTR 100-3: Introduction to Theater
THTR 200-3: Introduction to Technical Theater
THTR 202-3: Acting Workshop I

Choose ONE of these upper division courses:

THTR 320-3: History of Theater I
THTR 321-3: History of Theatre II
THTR 322-3: What's Funny? The Nature and Form of Dramatic Comedy
THTR 328-3: Women in Theatre

And all students must participate in at minimum THREE productions earning PRACTICUM credits in at least two areas:

THTR 339-1: Theatre Practicum
THTR 439-1 to 3: Theatre Practicum

Visual and Performing Arts Minor

In addition to the standing minors in the specializations of Art History, Film Studies, Museum and Gallery Practice, Music, Visual Arts and Theatre, the department offers a cross-disciplinary minor providing a strong basis in the collaborative aspects of the 6 areas comprising Visual and Performing Arts.

Requirements

The Minor in Visual and Performing Arts requires 18 hours of coursework, 9 of which must be upper division courses.

All students must complete the following courses for a total of 18 credit hours:

1 VAPA Foundation course: VAPA 100; VAPA 105; or VAPA 110 (3 cr)
2 Theory and Practice in Visual and Performing Arts courses: VAPA 390 (6 cr)
3 courses from 3 different VAPA specialization areas: AH, FILM, MUS, VA and THTR. (9 cr) At least one of these courses must be upper division.

Visual Arts Minor

Requires 18 hours total: 6 hours required 100 level; 3 hours 200 level; 9 hours 300/400 level in one media

Required core must be completed before enrolling in any 200/300/400 level visual art courses.

VA 101 Beginning Studio 2D and
VA 102 Beginning Studio 3D OR VA 104 Beginning Drawing

Women's Studies

Faculty

Associate Professor: Abby Ferber, Director; ***Assistant Professor:*** Aditi Mitra; ***Senior Instructor:*** Dena Samuels; ***Instructor:*** Abeer Ibrahim.

Minor in Women's Studies

Learning Outcomes, Women's Studies, minor

- Students should demonstrate an understanding of U.S. culture and society from multiple gender perspectives and intersections of race, class, gender, and sexuality.
- Students should demonstrate a broad understanding of women's historical material and cultural conditions in a variety of cultures and students should demonstrate knowledge of the ever increasing scholarship on women in various disciplines.

- Students should acquire a measurable degree of positive self-knowledge and self-validation in a society that often does not value women's participation and a diversity of gender roles and students should be able to synthesize personal reality with the larger gender realities through the theoretical knowledge gained in WMST courses.
- Students should demonstrate a measurable increase in their knowledge of the basic theories, concepts and debates in Women's Studies and students should possess knowledge of phases in the development of individual and collective consciousness and formation of identities on the basis of gender.

Women's Studies Minor Requirements

The minor may be obtained by students enrolled in any undergraduate program.

Students must take at least 18 semester hours of designated Women's Studies courses with grades of C or better.

WMST 200 (Introduction to Women's Studies) **OR** WMST 201 (Introduction to Race and Gender) is the only course required for the minor degree. (Students may take only one of these two courses, not both.) The remaining 15 hours may be selected from any course with the WMST prefix.

Transfer credits are limited to nine hours. Students may count up to three courses (9 credit hours) towards both the women's studies minor and their major at the same time.

The minor in women's studies also constitutes the basis for a major in Distributed Studies with a concentration in women's studies.

Students wishing to double minor in women's studies and ethnic studies are encouraged to consult with a director.

Exit Focus Group: During the senior year, each student is required to participate in an exit focus group (date to be announced). This is a mandatory meeting to discuss students' understanding and mastery of material presented in the Program. The Women's Studies office is located in Columbine Hall 1024. The office phone is (719) 262-4553; the Director's Office is in Columbine Hall 1046; phone is (719) 262-4139.

Pre-professional Curricula for Professional Schools

Health Fields

Professional programs in health fields are offered at institutions such as the University of Colorado Health Sciences Center in Denver, with prerequisite coursework available at UCCS. Pre-professional degrees are not offered at UCCS; thus, students should complete a degree in an area of interest to them and include appropriate prerequisite coursework for the desired professional program.

Students interested in a professional program in a health field should notify an advisor in the Student Success Center as soon as possible to ensure completion of all required coursework. Completion of prerequisite coursework at UCCS does not guarantee acceptance into a professional school. Students are urged to get information from the professional programs of their choice because the requirements often differ slightly for each school. Additionally, more stringent residency requirements are common for professional programs, and many professional programs are very selective due to enrollment limitations.

Admission to a professional program normally requires evidence of academic achievement and letters of recommendation documenting both academic and nonacademic qualifications. Each of the professional programs has many more applicants than it can accommodate, so no student should count on acceptance. Students are strongly urged to select undergraduate courses that provide the opportunity to apply to a number of different professional programs, as well as provide alternatives outside the health science fields. In particular, students should choose appropriate chemistry courses because courses are available at several levels of complexity.

Several pre-professional programs are based on the assumption that the student will be enrolled in the College of Letters, Arts and Sciences for only two or three years. However, it is recommended that students assume they will graduate from the College of Letters, Arts, and Sciences and select courses and a college major that provide the potential for graduation.

Because of the complexities involved in planning, the student is urged to consult the pre-professional adviser early in his or her college career. Professor Jon Pigage is the current faculty adviser for all of the pre-professional health fields. There is also an academic advisor for the pre-health professions. Students should contact the Student Success Center for the appropriate advisor.

With the exception of Pre-Veterinary Medicine, the course requirements stated in the following sections are for the University of Colorado Health Sciences Center programs for application to the 2007-2008 entering class with UCCS prerequisite coursework. As mentioned previously, other schools may have slightly different requirements, and students are advised to check the catalogues of all schools to which they may apply, as requirements continually change. Students should consult Letters, Arts and Sciences academic advisors for additional information regarding required and recommended coursework for the current application year or for information regarding transfer courses from previous schools.

Pre-Child Health Associate/ Physician Assistant

The CHA/PA Program is a three-year, highly academic program modeled after medical school. The CHA/PA Program is a Physician Assistant Program awarding a Master's of Physician Assistant Studies upon completion, and it is the only PA program that offers a pediatric focus. Although the emphasis is on preparing a generalist physician assistant with special expertise in pediatrics, the curriculum provides the new graduate with the fundamental knowledge

and skills necessary to function in a variety of roles within numerous clinical disciplines.

Minimum Requirements

Minimum requirements for applying to the program are as follows:

- completion of a bachelor's degree with at least 120 semester hours
- minimum cumulative and science GPAs of 2.8 on a 4.0 scale
- GRE scores

and the following courses:

BIOL 110/111 & 115/116 General Biology I & II w/labs

BIOL 321 Human Physiology

BIOL 383 Genetics (Pre-requisite: BIOL 302 Cell Biology)

CHEM 103 & 106 General Chemistry I & II

U D BIOL elective (need 2 if BIOL 321 not complete by application; should not include botany or ecology)

MATH 310 Statistics for the Sciences
OR PSY 210 Introduction to Psychological Statistics

Two Psychology electives (6-7 hours)

12 hours of humanities electives (should not included HIST, SOC, or ANTH)

Note: BIOL 32,1 U D BIOL elective, and statistics can be no older than 5 years.

Information may be obtained from: Child Health Associate/Physician Assistant Program, PO Box 6508, Mail Stop E-7019, Aurora, CO 80045-0508. www.uchsc.edu/chapa chapa-info@uchsc.edu

Pre-Dental Hygiene

In conjunction with the School of Dentistry, a baccalaureate degree program in dental hygiene is available at the University of Colorado Health Sciences Center (UCHSC). This is a "2+2" program with two years at UCCS and two years at UCHSC in Denver. The dental hygienist must satisfactorily complete a college program and pass the state board examination.

After being licensed by the state in which he or she wishes to practice, the dental hygienist has many opportunities for employment in private dental offices, state and city health agencies, federal government agencies, public and private schools, boards of education, industrial dental clinics and hospitals, and in schools of dental hygiene as directors and teachers.

Minimum Requirements for admission to the UCHSC program:

completion of 53 semester hours including:

BIOL 110/111 General Biology I & lab

BIOL 201 Human Anatomy & Physiology

CHEM 103 & 106 General Chemistry I & II

ENGL 131 & 141 English Composition I & II

PSY 100 General Psychology

COMM 210 Public Speaking

SOC 111 Introduction to Sociology

Information and application materials are available from: University of Colorado School of Dentistry, Office of Admissions & Student Affairs, PO Box 6508, Mail Stop F833, Aurora, CO 80045. www.uchsc.edu/sod

Pre-Dentistry

The majority of students accepted to the University of Colorado School of Dentistry have completed at least four years of undergraduate work and have received an undergraduate degree. Students must complete the Dental Admissions Test (DAT) before applying to dental school.

Admission Requirements

Completion of 90 semester hours (with at least 30 hours upper division) including:

BIOL 110/111 & 115/116 General Biology I & II

CHEM 103 & 106 General Chemistry I & II

CHEM 331/333 & 332/334 Organic Chemistry I & II

PES 101/115 & 102/215 General Physics I & II

ENGL 131 English Composition I

6 hours of English Literature or Humanities

Other electives to complete degree or minimum hours

Since most pre-dental students will graduate before entering dental school, it will be necessary to complete an academic major and other College of Letters, Arts, and Sciences degree requirements.

Information and application materials are available from: University of Colorado School of Dentistry, PO Box 6508, Mail Stop F830, Aurora, CO 80045-0508. www.uchsc.edu/sod

Pre-Medicine

The University of Colorado School of Medicine is a multi-facility aggregate with all modern resources for the assessment and comprehensive health care of individuals of all ages. The curriculum is under constant study and has recently been extensively revised to meet the changing needs in medical education.

Admission Requirements

The MCAT and a baccalaureate degree or at least 120 semester hours of college credit with a major leading to a degree are required. The MCAT must be taken before the November 1 application deadline.

The following courses are required:

BIOL 110/111 & 115/116 General Biology I & II w/labs

CHEM 103 & 106 General Chemistry I & II

CHEM 331/333 & 332/334 Organic Chemistry I & II w/labs

PES 101/115 & 102/215 Physics for Life Science I & II w/labs

ENGL 131 & 141 Rhetoric and Writing I & II

ENGL 150 Introduction to Literature

6 hrs Mathematics (Minimum requirement of college-level math courses; two courses from MATH 104, 105, 135 & 136 are recommended, with calculus strongly recommended)

Information and application materials are available from: Medical School Admissions, University of Colorado Health Sciences Center, 4200 East 9th Ave, Denver, CO 80262. www.uchsc.edu/sm/sm SOMAdmin@uchsc.edu

Pre-Pharmacy

The doctor of pharmacy is a "2+4" program with four years of professional pharmacy course work completed once admitted to the School of Pharmacy. All math and science prerequisite courses can be no older than seven years at the time of application. PhD programs in pharmaceutical sciences are also available at the University of Colorado.

Admission Requirements

Students accepted into the School of Pharmacy must have completed 60 semester hours of undergraduate work, including the following:

Seven year limit:

BIOL 110/111 & 115/116 General Biology I & II w/labs

BIOL 203/213 Microbiology with lab

BIOL 435 Human Anatomy

CHEM 103 & 106 General Chemistry I & II

CHEM 331/333 & 332/334 Organic Chemistry I & II w/labs

PES 101 Physics for Life Science I

MATH 135 Calculus I

No Limit:

ENGL 131 & 141 Rhetoric and Writing I & II

COMM 210 Public Speaking

ECON 101 Introduction to Microeconomics

PSY, SOC, ANTH (cultural) or HIST elective (1 sem.)

12 hours of general education electives (science, humanities, social science, mathematics, language, business, etc.)

Information and application materials for all pharmacy programs are available from: University of Colorado School of Pharmacy, Office of Student Services, 4200 East 9th Ave C-238, Denver, CO 80262-0238. www.uchsc.edu/sop

Pre-Physical Therapy

Physical therapy is a health profession whose practitioners are involved in the treatment of abnormalities of the muscular, skeletal and nervous systems. Persons who are disabled as a result of pain, disease, injury or developmental delay are evaluated by a physical therapist who then plans and administers an appropriate therapeutic program. Rehabilitation of individuals with cardiac or pulmonary disease also involves physical therapy in the recovery process. The physical therapy program at the University of Colorado is a Doctor of Physical Therapy curriculum.

Admission Requirements

A bachelor's degree (BS or BA) in a field other than physical therapy must be completed prior to matriculation into the professional program; the degree should include the following coursework:

BIOL 321 Human Physiology

BIOL 435 Human Anatomy

(Combined Anatomy & Physiology courses are not accepted; prerequisites include BIOL 110/111 & 115/166, General Biology I & II w/labs)

CHEM 103 & 106 General Chemistry I & II

PES 101/115 & 102/215 Physics for Life Science I & II w/labs

6 hours of Psychology or Sociology (PSY preferred; PSY 328 & 362 highly recommended)

3 hrs of mathematics (MATH 135 Calculus I, MATH 310 Statistics for the Sciences, or PSY 210 Introduction to Psychological Statistics)

If prerequisite science courses are older than 5 years, an additional 6 hours of upper division science coursework must be completed.

The application process is completed online through the University of Colorado Health Sciences Center Physical Therapy Program website, www.uchsc.edu/pt.

Email for questions: betti.krapfl@uchsc.edu

Pre-Veterinary Medicine

A pre-professional veterinary medicine curriculum prepares students to apply to a professional veterinary medicine program. In Colorado, a program is available at Colorado State University (CSU) in Fort Collins.

Admission Requirements

A minimum of 60 semester hours must be completed before admission to the veterinary program at CSU, including:

BIOL 110/111 General Biology I w/lab

BIOL 383 Genetics (Pre-requisites include BIOL115/116 General Biology II w/lab, and BIOL 302 Cell Biology)

CHEM 103 General Chemistry I

BIOL/CHEM 481 General Biochemistry I or BIOL/CHEM 483 Biochemistry principles (Pre-requisites include CHEM 106, 331, 332, 333, & 334)

PES 101/115 Physics for Life Sciences I w/lab

MATH 310 Statistics for the Sciences (prerequisite MATH 135)

ENGL 131 Rhetoric and Writing I

12 hours of social science, humanities, or foreign language courses

Since most pre-veterinary medicine students will graduate before entering veterinary school, it will be necessary to complete an academic major and other College of Letters, Arts, and Sciences degree requirements.

Further information regarding the Doctor of Veterinary Medicine program at Colorado State University may be obtained from their website at www.cvmbs.colostate.edu/cvmbs/pvmpro, or by emailing PrevetAdvisor@colostate.edu.

Other professional programs

Prejournalism

Students are referred to the School of Journalism section of the *University of Colorado at Boulder Course Catalogue* for detailed information concerning requirements for the bachelor of science degree in journalism.

Students normally transfer to the School of Journalism at the end of the sophomore year. Application for intra-university transfer must be filed not later than 90 days prior to the term for which the student wishes to register, or 60 days prior to pre-registration if the student participates in early registration.

Requirements

A cumulative grade point average of at least 2.25 in prior work at the University of Colorado is required before the student will be considered for admission to the School of Journalism.

Candidates for bachelor of science degrees in journalism are expected to fulfill all general requirements of the College of Arts and Sciences at Boulder. Students should note that these requirements differ in several ways from those of the College of Letters, Arts, and Sciences that are listed in this Bulletin. Satisfactory completion of these requirements will normally occupy most of the first two years. However, two required journalism courses are designed as lower-division courses and should be taken in the sophomore year prior to transfer to the School of Journalism:

JOUR 100 Contemporary Mass Media 3
JOUR 290 Writing for the Media 3

Pre-Law

Students are referred to the School of Law section of the University of Colorado at Boulder Bulletin for details of the curriculum leading to the professional degree, Juris Doctor (JD).

The School of Law of the University of Colorado, Boulder, requires a bachelor's degree for admission but does not stipulate courses that shall constitute a pre-law curriculum. Normally, all degree programs in the College of Letters, Arts, and Sciences in Colorado Springs will enable a student to meet the School of Law admission criteria, with the possible exception of a few specialized performance programs, such as those involving concentration in music, studio fine arts, or physical education.

The Law School Admission Test (LSAT) is required of all applicants and should be taken as early as possible during the senior year.

Students are urged to consult the Admissions Office of the School of Law, Room 141, Fleming Law Building (Boulder). Please contact the UCCS Department of Political Science for pre-law advising.

Teacher Education

Students are referred to the College of Education sections of this *Bulletin* for detailed information concerning teacher education programs (TEP) at elementary and secondary levels.

Students may obtain teaching licensure training in elementary education or in secondary education in the areas of English, foreign language (Spanish), mathematics, science, or social studies. However, they must first complete all requirements for an approved academic major in the College of Letters, Arts, and Sciences.

Students who plan on applying to the TEP should seek early advising from the Student Success Center in order to complete all requirements in a timely fashion.

Master of Sciences Degree Program (MSc)

This program is the only graduate-level program in the natural and physical sciences that can be taken entirely at UCCS. The breadth of the program allows students to emphasize their principal discipline of interest and also to take several courses in a related department. There is no list of required courses in the degree program. Instead, each student designs his or her own program in consultation with a departmental adviser.

The Master of Sciences (MSc) Program is a cross-disciplinary program leading to the master of sciences degree. It provides an opportunity for present and prospective science and mathematics professionals and others to extend and/or broaden their training in the natural and physical sciences and mathematics at advanced undergraduate and graduate levels.

The MSc options are:

- biology
- biotechnology/biochemistry
- chemistry, forensic science
- exercise science
- organismic biology
- mathematics
- science and mathematics teaching
- physics

Wide latitude is possible in the details of a degree plan so that each student may follow a course of study most pertinent to his or her interests and career goals. Each degree plan must be approved by the MSc Director and the student's adviser.

All courses credited toward the degree after admission must be taken at the University of Colorado, on the Colorado Springs, Denver, Health Sciences or Boulder campuses, over a maximum of five years or six successive summers.

Requirements for Admission

General regulations for admission to the Graduate School apply; see the Graduate School section in this Bulletin.

- Bachelor's degree from an accredited university
- At least 40 semester hours in the natural sciences and mathematics, preferably including one year of calculus. (Several departments accept other mathematics courses in lieu of calculus.) Students may be admitted to the program with a deficiency in mathematics but must remedy the deficiency within one year after admission with a grade of C or better.
- GPA of 2.75 or higher, depending on the option. A student with an undergraduate grade point average below 2.75 must take the GRE prior to consideration for admission.

How to Apply

Submit complete MSc application including the following:

- Cover letter stating intent and interest of obtaining an MSc; cover letter will be used as a writing sample
- Application for Graduate Admission: Parts 1 and Part 2
- Resume
- Confirmation of in-state classification
- Two official transcripts from all previous higher education institutions attended
- Letters of recommendation: three preferably, at least one from an undergraduate professor
- Letter from a sponsor: required for biology option
- Application fee: $60 for domestic students and $75 for international students
- Selective Service form: for all male applicants
- GRE: original only if required by option

Contact UCCS Graduate School, 1420 Austin Bluffs Pkwy, Colorado Springs, CO 80918, or go to http://web.uccs.edu/gradschl/geninfo/. All forms, transcripts, and supporting documents are processed at the UCCS campus.

Student advising is available through the Program Director.

Requirements for MSc Degree

General regulations of the Graduate School governing the award of the master's degree apply except as modified below.

- 30-36 semester hours of science and/or mathematics courses numbered 300 and above
- Select Thesis (requires thesis) or Non-Thesis (requires paper) option: Completion of a paper describing a research project or other specialized study on a topic is to be approved by the director and the student's adviser. Approval of the topic is given on the basis of a written explanation or precis submitted within six months of entering the program. The final paper must be approved by the student's committee and is in lieu of the comprehensive examination. Thesis option students write a thesis on their research rather than a paper. Students give a presentation and defend their thesis before a thesis defense committee. Publication of thesis results is encouraged.
- If a thesis is written, the student will take 24-26 semester hours of coursework and four to six semester hours of thesis credit. These are to be selected from two or more departments.
- All courses must be taken from approved Graduate School faculty members.
- Fifteen or more hours in science/math must be from courses numbered 500 and above. Courses may be selected from the following departments: biology, chemistry, education, health sciences, geography, mathematics, and physics.
- Because not all courses will be appropriate for all programs, students should first consult with their advisor before enrolling. An academic plan should be completed during the student's first semester.
- Minimum grade point average: Courses at the 300 and 400 levels will be accepted toward the degree only with grades of A or B; 500 and 600 level courses will be accepted toward the degree with grades of A, B, or C. Students must have a B average in all courses taken subsequent to admission to the program, including courses not actually required for the degree.

Thesis of Non-Thesis Option

The student has the option of selecting Plan I or Plan II.

Plan I: Thesis Option: 30 semester hours, including 4-6 hours of thesis credit. At least 15 semester hours must be at the graduate level in their primary department. A minimum of three credit hours must be taken from a secondary department. Student must write a thesis on their research, give a presentation, and defend their thesis before a thesis defense committee.

Plan II: Non-Thesis Option: 30 semester hours; at least 15 semester hours must be at the graduate level in their primary department. A minimum of three credit hours must be taken from a secondary department. Student must complete a paper describing a research project or other specialized study on a topic and give a presentation. This paper must be approved by the student's committee.

MSc Program Options:

Mathematics Option, MSc

Students must (1) develop a reasonable degree of competence in the fields of analysis and algebra and (2) demonstrate a depth to their mathematical education.

Towards that end, the requirements for the Mathematics Option in the Master of Sciences Program are as follows:

- Students must complete a minimum of 15 semester hours of upper division and graduate courses offered by the mathematics department.
- Of these 15 hours, 12 semester hours must be at the 400-level or higher, including at least three semester hours at the 500-level. (For example, students could take one 300-level course, three 400-level courses and one 500-level course.)
- Students must demonstrate the successful completion (with a grade of B or better) of the following courses.

  Algebra. MATH 414 Introduction to Modern Algebra (or its equivalent)

  Analysis. MATH 431 Introduction to Modern Analysis (or its equivalent)

  A year-long sequence of mathematics courses, sharing a common mathematical topic, to provide depth within the student's mathematical education. The common topic of the sequence may be one of algebra, analysis, probability and statistics, or mathematical applications. The courses of this sequence must be 400 level or higher. For example, MATH 414 and MATH 513 constitute an acceptable sequence in algebra.

The details of this requirement are to be specified in the student's program plan that is to be approved by a member of the Department of Mathematics.

The student opting for the Mathematics Option must arrange for a faculty advisor during the first or second semester after admission. The student, together with the advisor, will construct an academic plan and will decide on the details for the paper or thesis option. To formally arrange for the advisor, the student should contact the chair of the Graduate Committee of the Mathematics Department.

Science Options, MSc

The MSc student can choose a science option in biology, biotechnology/biochemistry, chemistry, exercise science, organic biology, and physics.

Learning Outcomes, Biology/Biotechnology/Organismic Biochemistry/Exercise Science options, MSc

- Demonstrate an increased knowledge of the major theories and concepts on two major areas (biology and one other) of study in the sciences.
- Demonstrate an understanding of and the ability to apply the fundamentals of research methodology and statistical analysis to the interpretation and evaluation of scientific data and research reports.
- Demonstrate the ability to communicate knowledge of two major areas of study in the sciences both orally and in writing.
- Be prepared for jobs or advanced education in a field of science.

Program Description

The Science Option emphasizes the following natural science departments: biology, chemistry, and physics. Two-semester sequence courses (which are offered in some of the natural science departments) are encouraged where appropriate. The student's courses in his or her department of emphasis are supplemented with several courses from a second department. The secondary department may be any of the following: biology, health sciences, chemistry, mathematics, and physics.

The complete Science Option Program includes 30 semester hours of coursework, of which 15 or more hours must be at the graduate level (500 level or above). Thesis research is not counted toward this 15-hour requirement. The 30 hours may also include three semester hours of upper-division courses or seminars in secondary school teaching, history of science, or philosophy of science.

Biology:

(Biology, Biotechnology/ Biochemistry, Exercise Science, Organismic Biology) Students interested in the biology program must meet with the faculty member advising their area of interest. Requirements will vary but will likely include at least one 400-level course taught by that faculty. Thesis is required. A sponsor is necessary for admission.

Chemistry:

Students interested in the chemistry graduate program should contact the chemistry program advisor of current requirements and research opportunities.

Physics:

Students interested in the physics program must meet with the physics program advisor. Research students in the program are especially encouraged to begin research projects by their junior year and no later than their fourth year so that they may submit significant theses upon completion of the fifth year as part of a thesis MSc degree.

Mathematics and Science Teaching Options, MSc

This option requires 36 semester hours of study. The same rules are followed as for the science option except that 24 hours of science/math and 12 hours of education courses are required.

For the 12 hours of required education courses, students should consult their advisors to choose courses suitable for their programs.

Students may select either Plan I: thesis or Plan II: non-thesis option.

Forensics Science Option, MSc

The Forensic Science Option emphasizes the basic sciences and clinical application of forensic study. The student's program is supplemented with several courses from a second department. The secondary department may be any of the following: biology, chemistry, psychology, or sociology.

Required Courses

HSCI 441-4 Forensic Chemistry and Toxicology

HSCI 631-3 Introduction to Forensic Science

HSCI 634-3 Psychosocial Aspects of Forensic Science

HSCI 635-2 Forensic Internship

HSCI 702-3 Health Science Research

Other Courses

HSCI 439-3 Forensic Photography

HSCI 630-3 Sexual Assault: Implication for Health Care Delivery

HSCI 632-3 Investigation of Death and Injury

HSCI 633-3 Crime Scene and Crime Lab

HSCI 636-3 Legal Aspects of Forensic Science: Civil and Criminal

HSCI 637-3 Violence and Human Rights Issues

BA/BS-MSc Dual Degree Program option

For students majoring in biology, chemistry, or physics

The dual degree program is a high quality, five-year program designed for students who wish to pursue further graduate studies such as doctoral programs and for those who wish to be gainfully employed in work in the natural or physical sciences upon graduation.

By achieving two degrees in a shorter period than traditionally possible in some of the MSc disciplines, students can benefit from an enriching research experience beyond what they would achieve by completing a BA or a BS alone.

Dual Degree Entrance Requirements:
Applicants must be biology, chemistry, or physics majors, have junior or senior status, and a minimum overall GPA of 3.1. Qualified students will be admitted to the Dual Program (as "Dual Program majors") based upon the recommendation of the faculty (3 letters of recommendation). Students will be accepted into the Dual Program as juniors or seniors, and, subject to their satisfactory performance, are subsequently accepted into the graduate school upon completion of the BA or BS degree.

Transfer Students:
Upon receiving acceptance to UCCS, transfer students interested in the Dual Program should consult with a departmental advisor.

Major Requirements:
Each department has a minimum set of requirements in the major that must be met before a student can be admitted to the Dual Program.

Dual Program Plan:
The degree plan for each student is drawn up in cooperation with the department program advisor and department chair. Every student is expected to take 120 undergraduate hours and 30 graduate hours. However, some 500-level hours may be taken during the fourth year and more 400-level undergraduate hours may be taken during the fifth year (more than for a typical MSc student).

After completing these minimum requirements, a Dual Program student can then proceed to complete additional upper level courses. Consultation with the program advisor and department chair is required to formulate an academic plan for the Dual Program.

Beth-El College of Nursing and Health Sciences

Carole Schoffstall, Dean
University Hall
Telephone (719) 262-4422
Fax: (719) 262-4416
uccs.edu/bethel

In 1904, Beth-El School of Nursing was established by an agency of the Methodist Church. The school was purchased by the City of Colorado Springs in 1943. In 1983 the school sought regional accreditation from NCA to acquire college status as a professional school. Beth-El operated as a city school/college until 1997. In July 1997, Beth-El merged with the University of Colorado at Colorado Springs. The College moved to the UCCS campus in December 1997.

The College addresses the nursing and health science educational needs of the city of Colorado Springs and beyond by offering undergraduate and graduate degrees as well as certificate and life-long learning programs. The Beth-El graduate is prepared to practice professional nursing while providing care for individuals, families, groups and communities.

Utilizing such diverse facilities as Memorial Hospital, Penrose/St. Francis Health Services, Evans Army Hospital, Pikes Peak Hospice, Cedar Springs Behavioral Health Systems Inc. and Colorado Mental Health Institute, the College provides clinical learning opportunities for students in Colorado Springs, Pueblo, Denver and throughout the country. In addition, over 130 community agencies, care provider offices, and other health agencies and hospitals are utilized for clinical experiences.

Mission

Beth-El College of Nursing and Health Sciences prepares graduates for service and leadership roles in health care. Towards that goal, it is the mission of the College to:

- Use a multidisciplinary approach to academic and clinical excellence
- Foster a community of scholarship and caring that extends beyond the walls of the College
- Influence the present and future direction of health care, and
- Facilitate collaboration for the promotion of a healthy community.

Vision

To be the college of choice for those who are committed to excellence in nursing and the health sciences, scholarship and life-long learning in the markets we serve.

Accreditation

The programs of the College are fully accredited with the Colorado State Board of Nursing and CCNE. The College also holds membership in the Colorado Association of Colleges of Nursing, the Colorado Council of Nurse Educators, the American Association of Colleges of Nursing, Sigma Theta Tau (Xi Phi Chapter), and the National League for Nursing.

Programs of Study

Discipline	Minor	BS Bachelor of Science	MSN Master of Science Nursing	MSc Master of Sciences	Certificate Undergraduate and Graduate	DNP Doctor of Nursing*
HEALTH CARE SCIENCES						
Forensic Health	Minor	BS		MSc	Certificate	
Nutrition		BS				
Allied Health (self defined)		BS				
Health Promotion				MSc		
Sports Health & Wellness	Minor	BS				
Sport Medicine				MSc		
NURSING		BSN, BSN accelerated RN to BSN w/distance option	RN to MSN, Nurse Practitioner** Clinical Specialist*** Nursing Admin****		UG & Grad Certificates: *Forensic Nursing,* *Geriatric Nursing,* *Holistic Nursing,* *Nursing Education*	DNP*

***Nurse Practitioner includes options in Adult Nursing, Adult/Geriatric, Family Nursing, and Women's Health (completion)*
**** Clinical Specialist includes options in Community Health Nursing and Adult Health*
***** Nursing Administration includes options in Holistic, Forensic, Community Health, Gerontology, Nursing* Administration, *Nursing Education & Correctional Nursing*
**Doctorate of Nursing Practice (DNP) includes the Post Master's DNP Option.*
Post BSN DNP Option is projected to start 2010.

Faculty

Dean and Professor: Carole Schoffstall; Professor: Mary Hagedorn; ***Associate Professors:*** Barbara Joyce-Griesbach, Kathy LaSala, Jenenne Nelson; ***Assistant Professors:*** Lynne Bryant, Vickie Brownrigg, Lea Gaydos, Andrea Hutchins, Mary Ann Kluge, Travis Peterson, Glenda Reimer, Amy Silva-Smith, David Suprak; ***Clinical Instructors:*** Ellen Biebesheimer, Trellis Moore, Jefferson Spicher, Cathy Emeis, Diane Elliot-Lee, Lynn Phillips, Linda Weaver; ***Nutritional Instructor:*** Kimberely Schenck.

Advising

Undergraduate: *Student Success Center, Main Hall, 2nd Floor. (719) 262-3260.*

Graduate: *See individual program descriptions.*

Beth-El Academic Policies

General Academic Policies

All students are responsible for knowing and following the provisions set forth in this *Bulletin*, in the *Schedule of Courses* and in the *Beth-El Student Handbook*. It is also the responsibility of the student to know and observe program requirements and deadlines.

The *Bulletin* that governs a student's graduation requirements is the one in effect at the time of a student's most recent admission into the college of the student's degree program. The academic policies and regulations stated herein are in effect at the time this *Bulletin* is printed but may be subject to change.

In an effort to regularly enhance the programs offered as well as meet the needs of our students, changes are made periodically to the curricula. These changes may not be reflected in this *Bulletin*. Students are encouraged to visit the website at uccs.edu/bethel, the undergraduate student handbook at uccs.edu/ bethelstudenthandbook or the graduate student website at uccs.edu/bethel.msn. handbook for current information.

Certified Background Check

All nursing and health science students participating in any clinical/practicum placement will be required to participate in a certified background check. If the student is unable to pass or successfully appeal a negative background check, he/she will not be able to continue in the course. Inability to participate in clinical/practicum experiences will force withdrawal from nursing or health science program.

Computer Competency Requirements

Students are expected to have basic computer skills upon entering Beth-El. If not, students can take a computer literacy course to count for general education elective credit.

Course Pass/Fail Registration

With the exception of NURS 299 or 300, students in the College of Nursing & Health Sciences may not use courses taken on a pass/fail basis to satisfy degree requirements.

Grading Policies

Incomplete Grades: Please refer to the General Information section of this *Bulletin* for an explanation of IW or IF grades.

Undergraduate Academic Policies

Standards of Performance: Undergraduate

To remain in good academic standing, undergraduate students must maintain a cumulative CU grade point average of 2.0 or better for all courses attempted. In addition, no course grade below a C- is applicable to the degree program. For nursing students no course grade below a C is allowed if the course is a required health science or nursing course.

Probation and Suspension Policy

Academic Probation for Nursing and Health Care Sciences Students:

Students may be placed on academic probation if their CU GPA falls below 2.0 or if they receive a grade below a C in required health science or nursing courses for the first time. They may continue with required courses unless the failed course/courses are prerequisites for upcoming courses. In that case the failed course/courses must be repeated prior to progressing. If the failed course/courses are general education courses, the student must meet with the Nursing Advisor in the Student Success Center to create a plan for future success. Students may remain on academic probation for a maximum of three semesters. If, by the end of their third semester of probation, their CU GPA has not been raised to 2.0 or better, they will be subject to suspension from the College.

Note: If the failed course is a clinical course, the student must meet with the Chair of the Undergraduate Nursing Department to discuss clinical progression.

Clinical Probation for Nursing Students

Each undergraduate clinical student will receive a progress evaluation at the end of each rotation within the semester. If the student receives an unsatisfactory rating, the student will be placed on clinical probation and must consistently improve all ratings to satisfactory by the end of the semester in order to pass the course. It is possible to receive a failing grade on clinical without having previously been placed on probation. Clinical failure constitutes failure of the entire course, regardless of academic scores on theory content.

Academic Suspension for Nursing and Health Care Science Students:

Two failures of any required nursing and/or health science core and specialty courses of two credits or greater will result in dismissal from the College. Students may petition in writing to the Department Chair for re-admission to the College within 30 calendar days. Dismissal from the Nursing or Health Care Science Program does not imply dismissal from the University of Colorado.

Undergraduate Graduation Requirements

To be eligible to graduate with a BS in the College of Nursing & Health Sciences, a student must:

- Be admitted into the degree major at least 30 credits prior to graduation
- Grades: See Standards of Performance above
- Complete the Writing Competency Exam as outlined in the General Information section of this *Bulletin*
- Satisfactorily complete any previously identified MAPS deficiencies

Undergraduate Admission

Nursing: Freshmen

Students who have a previous conviction for a felony as well as some misdemeanors may not be eligible to be placed in clinical assignments and may not be allowed to sit for the State Board of Nursing exam (NCLEX), even if they complete a degree in nursing. Contact the Colorado State Board of Nursing for additional information prior to application to Beth-El College of Nursing & Health Sciences.

Admission Criteria for students applying as freshmen:

- An un-weighted GPA of 3.3 or better in high school course units
- Composite score of 24 on the ACT or a total score of 1080 on the SAT

Nursing Prep Students

Students who meet admission criteria are admitted into the Nursing program under Nursing Prep. Nursing Prep students complete general education requirements while awaiting an invitation into the clinical portion of the program. In order to progress into the clinical portion of the program, students must have completed the first year curriculum courses successfully (C- or better with the exception of HSCI 207 which must be completed with a C), attain a cumulative GPA of 3.0 or better, and have availability of a clinical spot.

Due to the limited number of clinical spots available, ranking will occur based on date of admission, and more than 4 years may be required to complete the program. Nursing Prep students must meet with their academic advisor prior to registration for any semester and will be notified by mail for appointment opportunities.

All students admitted to Nursing at Beth-El College of Nursing and Health Sciences as traditional freshman (non-transfers and not nursing prep students) that meet all of the course and academic policy requirements and maintain a GPA of 3.3 can graduate in 4 years.

Pre-Nursing Students

Students not admitted directly into the Beth-El College of Nursing & Health Sciences may still be admitted to UCCS under the College of Letters, Arts and Sciences Pre-Nursing program. Freshmen admitted to the Pre-Nursing program may apply to transfer to the College of Nursing & Health Sciences once 30 credit hours of designated nursing curriculum courses have been completed with a cumulative GPA of 3.3 or better. Contact the Nursing Advisor in the Student Success Center for details.

Admission eligibility to the University of Colorado does not constitute a guarantee of enrollment in any specific nursing program.

Health Care Science: Freshmen

Admission Criteria for Students Applying as Freshmen

- Rank in the upper 40% of high school graduating class
- An un-weighted G.P.A. of 2.8 or better in suggested high school course units
- Composite score of 24 on the ACT or a total score of 1080 on the SAT

Freshmen applicants whose records vary in any way from the above admissions criteria will be considered on an individual basis by evaluation of their overall academic records including (a) the quality of their high school program of study; (b) the level of their college entrance test scores (SAT or ACT); and (c) any information unique to an individual situation.

Pre-Health Care Students

Students not admitted directly into the College of Nursing & Health Sciences may still be admitted to UCCS under the College of Letters, Arts and Sciences Pre-Health Care program. Freshmen admitted to the Pre-Health Care program may apply to transfer to the College of Nursing & Health Sciences once 30 credit hours of designated health care science curriculum courses have been completed with a cumulative GPA of 2.5 or better. Contact the Nursing Advisor in the Student Success Center for details.

Admission eligibility to the University of Colorado does not constitute a guarantee of enrollment in any specific health care science program.

Suggested High School Course Units for Beth-El Students

English	4 years
Math-College Prep	3 years
Chemistry	1 year
Biological Science	1 year
Non-lab Science	1 year
Social Sciences	2 years
Foreign Language	2 years
Academic Electives	1 year

Transfer Students: Nursing

Students who have attended a collegiate institution other than UCCS or who have been admitted to a different College within UCCS may apply as transfer students if they have completed 30 credit hours of transferable college level work. Applicants for the nursing program must have a cumulative GPA of 3.0 or better. Transfer students must be in good standing and eligible to return to all institutions previously attended. While transferability of credits is determined by the Office of Admissions, final application to the degree program is determined by the Beth-El College of Nursing and Health Sciences.

Students who meet admission criteria are admitted into the Nursing program under Nursing Prep.

Nursing Prep students complete general education requirements while awaiting an invitation into the clinical portion of the program. In order to progress into the clinical portion of the program, students must have completed the first year curriculum courses successfully (C- or better with the exception of HSCI 207 which must be completed with a C), maintain a cumulative GPA of 3.0 or better, and have availability of a clinical spot. Due to the limited number of clinical spots available, ranking will occur based on date of admission. Nursing Prep students must meet with their academic advisor prior to registration for any semester and will be notified by mail for appointment opportunities.

Students who have attended a different BSN program and who wish to transfer must meet the above stated admission criteria. In addition, students who wish to transfer from a different BSN program must be in good standing and eligible to return to all institutions previously attended. Clinical placement is subject to review of completed clinical courses and availability of appropriate clinical spot.

Transfer Students: Health Care Science

Students who have attended a collegiate institution other than UCCS or who have been admitted to a different College within UCCS may apply to transfer into the Health Care Sciences program once 30 credit hours have been completed with a cumulative GPA of 2.5 or better. While transferability of credits is determined by the Office of Admissions, final application to the degree program is determined by the College of Nursing and Health Sciences.

Returning Students: Nursing

Students who were previously admitted into the Beth-El College of Nursing & Health Sciences and who must reapply, must meet the admission criterion of a cumulative GPA of 3.0 or better. If no clinical courses have been completed, students will be readmitted into Nursing Prep to complete general education requirements and await availability of clinical spot. If clinical courses have been completed, assessment of clinical skills may be required with determination of clinical placement based upon the assessment and availability of clinical spot.

Advanced Placement for LPN's

All BSN students seeking advanced standing will be required to meet the same prerequisites and terminal objectives of the college as traditional students. Advanced placement credit may be obtained by transfer or credit examination. Advanced placement students must have an active unrestricted LPN license in Colorado and have completed at least 30 credit hours of transferable college level work with a cumulative GPA of 3.0 or better prior to application.

If eligible, student will receive notification of admission. Admission eligibility to the University of Colorado does not constitute a guarantee of enrollment in any specific nursing program.

Nursing – Bachelor of Science BSN

The graduate is prepared to practice professional nursing while providing care for individuals, families, groups and communities. Students who are not RNs will choose the traditional curriculum plan. Registered Nurses (RN) can seek advanced standing through the RN to BSN plan. An accelerated program exists for students who have already completed their Bachelor's degree.

Outcomes – BSN, Nursing

- Synthesize relevant knowledge and skills to provide safe, professional nursing care
- Be able to effectively compete in the professional marketplace
- Communicate with individuals and the community to maintain collegial professional relationships
- Apply critical thinking in the provision of nursing care

BSN Program Requirements

Clinical Requirements for Students in the BSN Program

Nursing students are to keep a personal file of the following information. It will be reviewed by clinical faculty prior to any clinical courses.

- Nursing License (for RN to BSN students)
- CPR card
- Date and result of PPD test or last chest x-ray report if unable to take PPD
- Evidence of MMR boosters (2) if born after 1957 or titers to all three diseases (measles, mumps, and rebella).
- Dates of Heptavax series
- Verification of Medical Insurance
- Date and results of TD within last 10 years
- Certified Background Check

BSN State Board Passing Rates

BSN graduates are eligible to apply to the Colorado State Board of Nursing to take the RN licensure examination.

State Board of Nursing passing rates for those taking the licensing exam (NCLEX) for the first time are one of the highest in the state of Colorado for BSN Nursing programs.

BSN Curriculum Plan for Traditional Baccalaureate Nursing Students

First Year

ANTH 104 Cultural Anthropology 3
BIOL 201 Anatomy and Physiology 1 4
BIOL 202 Anatomy and Physiology II 4
CHEM 101 Chemistry I 4
CHEM 102 Chemistry II 4
ENGL 131 Rhetoric and Writing I 3
ENGL 141 Rhetoric and Writing II 3
HSCI 207 Nutrition for Health Professional 3
PSY 100 General Psychology 3-4
General Education Elective 3
Total . . . . . 34-35 credits

All first year courses must be completed prior to progressing to second year clinical courses.

Second Year

BIOL 203 & 213 Microbiology 4
HSCI 101 Pharmacological Math(16 clock hours)
HSCI 205 Pharmacology 3
HSCI 301 Pathophysiology 3
NURS 123 Foundations of Nursing Practice 3
NURS 208 Health Promotion 3
NURS 210 Basic Health Assessment 3
NURS 220 Fundamentals of Nursing 6
PSY 362 Developmental Psych 3
SOC 111 Intro to Sociology 3-4
Total . . . . . 31-32 credits

All second year courses must be completed prior to progressing to third year clinical courses.

Third Year

HSCI 206 Health Science Statistics 3
NURS 310 Mental Health Nursing 6
NURS 320 Nursing Care of Adults I 5
NURS 321 Nursing Care of Adults II 5
NURS 401 Nursing Research 3
Nursing/Health Science Elective 3
Humanities Elective 3
Total . . . . . 31 credits

All third year courses must be completed prior to progressing to fourth year clinical courses.

Fourth Year

NURS 410 Nursing Care of Children 6
NURS 420 Nursing Care of the Childbearing Family . . . 6
NURS 429 Advanced Nursing 6
NURS 440 Community Health Nursing 6
General Education Elective 1-3
Humanities Elective 3
Total . . . . . 28-30 credits
Total Program Credits: 126

Continuing Students

Once BSN students have accepted an invitation for a clinical spot, their status will be changed from Nursing Prep to Nursing. The nursing curriculum is a very structured program and must be adhered to in order. Second year courses must be successfully completed prior to progression of third year courses. Third year courses must be successfully completed prior to progression of fourth year courses. If an interruption in the sequencing of courses is necessary, students accept their Leave of Absence knowing that a possible delay in program completion may occur. Non-matriculating students only return on a space available basis. Returning students must make an appointment with the Nursing Advisor or the Chair of the Undergraduate Nursing Department prior to registration.

Leave of Absence

Leave of Absence requests must be made in writing to the Chair of the Undergraduate Nursing Department. Refer to the Beth-El Student Handbook for an explanation of the policy.

RN to BSN Plan: Nursing for Registered Nurses – Bachelor of Science

Multiple entry levels facilitate the educational upward mobility of RNs. All students seeking advanced standing will be required to meet the same prerequisites and terminal objectives of the college as traditional students. Advanced placement credit may be obtained by transfer credit, or credit by examination. Those seeking advanced placement in the baccalaureate program must meet the following requirements:

- Clinical practice experiences of at least 1,000 hours within the past three years or completion of an approved R.N. refresher course
- Advanced placement students must have an active unrestricted R.N. license and have graduated from an accredited program. Request information related to the "Colorado Articulation" to answer additional questions for registered nurses seeking advanced placement

Curriculum Plan for Advanced Placement in RN to BSN

General Education

ANTH 104 Cultural Anthropology 3
BIOL 201 Anatomy and Physiology 1 4
BIOL 202 Anatomy and Physiology II 4
BIOL 203 & 213 Microbiology 4
*HSCI 207 Nutrition for Health Science 3
CHEM 101 Chemistry I 4
*CHEM 102 Chemistry II 4
ENGL 131 Rhetoric and Writing I 3
ENGL 141 Rhetoric and Writing II 3
HSCI 206 Health Science Statistics 3
PSY 100 General Psychology 3-4
PSY 362 Developmental Psych 3

SOC 111 Intro to Sociology 3-4
Humanities Elective (2) 6
General Education Elective (2) 4-6
Total . . . . . 56 credits

Nursing/Health Science Required Courses
HSCI 301 Pathophysiology 3
NURS 304 Patterns of Knowing (R.N.) 3
NURS 305 Health Assessment (R.N.) 3
NURS 401 Nursing Research 3
NURS 425 Professional Nursing Practice (R.N.) 3
NURS 435 Nursing Management (R.N.) 3
NURS 445 Community Health (R.N.) 6
NURS 448 Clinical Capstone 2
Nursing/Health Science Elective (2) 6
Total . . . . . 32 credits

**For RN programs with integrated content, substitutions for these courses are possible.*

Online Courses: All advanced Nursing/Health Science courses, with the exception of Nursing/ Health Science Electives, are offered in an on-line format. Refer to the Beth-El website at web.uccs.edu/bethel for information regarding technological requirements for completing on-line courses.

Colorado Articulation:
Credits granted through articulation
for RNs: . . . . . **38 credits**
Total Program Credits: . . . . . 126 credits

BSN Accelerated Program, Bachelor of Science Plan – Nursing

Students who have completed a bachelor's degree in a non-nursing field may be eligible to apply for the accelerated BSN program if they have successfully completed (C- or better) all of the general education requirements as detailed on our website at web.uccs.edu/bethel and have a cumulative GPA of 3.0 or better. Contact the Chair of the Undergraduate Nursing Program or the Nursing Advisor for specific information.

Health Care Science – Bachelor of Science (BS)

The Bachelor of Science in Health Care Science prepares the graduate for professional practice in health related settings. The program includes a foundation in general education as well as a broad understanding of health care delivery systems.

Options within the program to develop advanced specialization in a specific or chosen discipline include forensic science, sports health and wellness promotion, or nutrition. An upper division completion option is available in allied health areas such as radiation technology, paramedicine, dental hygiene or respiratory therapy for students with associate degrees or certificates in these areas.

Outcomes – BS in Health Care Sciences

- Students will demonstrate the knowledge necessary to function in their health science area.
- Students will demonstrate the ability to assess, plan, and implement interventions in their chosen discipline.
- Students will demonstrate the ability to incorporate research and theory in health sciences practice.
- Students will recognize improvements in written and oral communication.
- Students will find their degree program/course of study to be of high quality and useful.

Forensic Health Science Option – BS in Health Care Sciences

Within the Forensic Health Science option in the Health Care Sciences BS, there are three options: Field Investigations, Forensic Biology, and Forensic Chemistry.

Option A – Field Investigations Curriculum (Forensic Science)

General Education Course Requirements
ENGL 131 Rhetoric and Writing I 3
ENGL 309 Tech Writing
(Complete Competency Exam) 3
HSCI 206 Health Science Statistics 3
Humanities Electives (2-see LAS list) 6
PSY 100 General Psychology 3-4
SOC 111 Introduction to Sociology 3-4
General Education Electives 6-9
Credits 30

Health Science Prerequisites
BIOL 201 Human Anatomy and Physiology I 4
BIOL 202 Human Anatomy and Physiology I I 4
CHEM 101 Introduction to Chemistry I 4
CHEM 102 Introduction to Chemistry II 4
MATH 104 College Algebra (or higher) 3
Credits 19

Health Science Core Requirements Core #2
HSCI 200 Professional Practice Foundations 3
HSCI 210 Patient Assessment 3
HSCI 245 Health Care Environments 3
HSCI 301 Pathophysiology 3
HSCI 401 Health Science Research 3
HSCI 436 Health Care Management 3
HSCI 450 Legal/Ethical Issues 3
Credits 21

Forensic Health Science Option Requirements
Forensic Science Electives – see advisor for list 12
HSCI 429 Legal Aspects: Civil and Criminal 3
HSCI 430 Sexual Assault 3
HSCI 431 Introduction to Forensic Science 3
HSCI 432 Investigation of Injury and Death 3

HSCI 433 Crime Scene and Crime Lab 3
HSCI 434 Psychosocial Aspects of Forensics 3
HSCI 437 Violence and Human Rights 3
EISCI 438 Substance Abuse 3
HSCI 439 Forensic Photography 3
HSCI 440 Forensic Practicum 4
HSCI 441 Forensic Chemistry & Toxicology 4
SOC 340 Criminology 3
Credits 50
Total Program Credits 120

Option B – Forensic Biology Curriculum (Forensic Sciences)

General Education Course Requirements
ENGL 131 Rhetoric and Writing I 3
ENGL 309 Tech Writing
(Complete Competency Exam) 3
HSCI 206 Health Science Statistics 3
PSY 100 General Psychology 3-4
SOC 111 Introduction to Sociology 3-4
Credits 17

Health Science Prerequisites
BIOL 110/111 General Biology I and Lab 4
BIOL 115/116 General Biology II and Lab 4
BIOL 201 Human Anatomy and Physiology 1 4
BIOL 202 Human Anatomy and Physiology II 4
CHEM 103 General Chemistry I 5
CHEM 106 General Chemistry II 5
MATH 135 Calculus I 4
MATH 136 Calculus II 4
PES 111/115 General Physics I and Lab 5
PES 112 General Physics 11 4
Credits 43

Health Science Core Requirements Core #2
HSCI 200 Professional Practice Foundations 3
HSCI 301 Pathophysiology 3
HSCI 401 Health Science Research 3
HSCI 436 Health Care Management 3
HSCI 450 Legal/Ethical Issues 3
Credits 15

Forensic Health Science Option Requirements
BIOL 302 Cell Biology 3
BIOL 383 Genetics 3
BIOL 384 Genetics Lab 2
BIOL 481 Biochemistry I 3
BIOL 482 Biochemistry II 4
BIOL 484 Molecular Biology 3
CHEM 330 Organic Chemistry 3
CHEM 340 Organic Chemistry Lab 2
CHEM 417 Analytical Chemistry I 4
CHEM 418 Analytical Chemistry II 3
CHEM 420 Practical Instrumental Analysis 2
HSCI 429 Legal Aspects: Civil and Criminal 3
HSCI 431 Introduction to Forensic Science 3
HSCI 433 Crime Scene and Crime Lab 3
HSCI 441 Forensic Chemistry & Toxicology 4
Credits 45
Total Program Credits 120

Option C – Forensic Chemistry Curriculum (Forensic Sciences)

General Education Course Requirements
ENGL 131 Rhetoric and Writing I 3
ENGL 309 Tech Writing
(Complete Competency Exam) 3
General Education Electives 6
HSCI 206 Health Science Statistics 3
PSY 100 General Psychology 3-4
SOC 111 Introduction to Sociology 3-4
Credits 23

Health Science Prerequisites
BIOL 110/111 General Biology I and Lab 4
BIOL 201 Human Anatomy and Physiology I 4
BIOL 202 Human Anatomy and Physiology II 4
CHEM 103 General Chemistry I 5
CHEM 106 General Chemistry II 5
MATH 135 Calculus I 4
MATH 136 Calculus II 4
PES 111/115 General Physics I and Lab 5
PES 112/215 General Physics II and Lab 5
Credits 40

Health Science Core Requirements Core #2
HSCI 200 Professional Practice Foundations 3
HSCI 301 Pathophysiology 3
HSCI 401 Health Science Research 3
HSCI 436 Health Care Management 3
HSCI 450 Legal/Ethical Issues 3
Credits 15

Forensic Health Science Option Requirements
CHEM 330 Organic Chemistry 3
CHEM 340 Organic Chemistry Lab 2
CHEM 417 Analytical Chemistry I 4
CHEM 418 Analytical Chemistry II 3
CHEM 420 Practical Instrumental Analysis 2
CHEM 483 Biochemistry Principles 3
HSCI 429 Legal Aspects: Civil and Criminal 3
HSCI 430 Sexual Assault 3
HSCI 431 Introduction to Forensic Science 3
HSCI 432 investigation of Injury and Death 3
HSCI 433 Crime Scene and Crime Lab 3
HSCI 438 Substance Abuse 3
HSCI 439 Forensic Photography 3
HSCI 441 Forensic Chemistry & Toxicology 4
Credits 42
Total Program Credits 120

Nutrition Option – BS in Health Care Sciences

This program has been granted Developmental Accreditation by the Commission on Accreditation for Dietetics Education. Students may earn the credentials of a Registered Dietitian by completing an accredited academic program, completing an Internship at a CADE approved location after the academic program, and by passing a national exam.

General Requirements

To receive a verification statement for completion through the Didactic Program in Dietetics, a student must take a minimum of 16 credits at the 300 level or above, to include BIOL 430 Advanced Nutrition; HSCI 402 Food Systems Management; HSCI 492 Nutritional Assessment across the Lifespan; HSCI 493 Medical Nutrition Therapy; HSCI 494 Nutrition Practicum through the Department of Health Sciences, University of Colorado at Colorado Springs, and have earned academic credit for the remaining coursework listed on the Verification Completion Checklist.

International students must take a minimum of the following courses from the University of Colorado at Colorado Springs: BIOL 430 Advanced Nutrition; HSCI 402 Food Systems Management; HSCI 492 Nutritional Assessment across the Lifespan; HSCI 493 Medical Nutrition Therapy; HSCI 494 Nutrition Practicum. If not taken at the University of Colorado at Colorado Springs, the equivalent course to HSCI 392 Nutrition Science and Community must have been completed through an approved/accredited U.S. or Canadian academic program.

Individuals with foreign degrees are encouraged to view the American Dietetic Association's Fact Sheet for additional information about becoming a Registered Dietitian credentialed by the Commission on Dietetic Registration (CDR).

General Education Courses

ENGL 131 Rhetoric and Writing I 3
ENGL 141 Rhetoric and Writing II 3
HSCI 206 Health Science Statistics 3
Humanities Electives (2) 6
PSY 100 General Psychology 3-4
SOC 111 Intro to Sociology 3-4
General Ed Electives
(include INFS 110 and ACCT 201) 6-8
Credits 29

Health Science Prerequisites

BIOL 110/111 General Biology I w/ Lab 4
BIOL 201 Anatomy and Physiology I 4
BIOL 202 Anatomy and Physiology II 4
BIOL 203 & 213 Microbiology 4
CHEM 103 General Chemistry I 5
CHEM 106 General Chemistry II 5
HSCI 106 Personal Nutrition 3
Math 104 College Algebra 3
Social Science Elective 6
Credits 35

Health Science Core Requirements Core #1

HSCI 401 Health Science Research 3
HSCI 420 Health Behavior Change 3
HSCI 452 Health Teaching 3
HSCI 463 Culture and Health 3
Credits 12

Nutrition Option Requirements

BIOL 430 Advanced Nutrition 3
CHEM 330 Organic Chemistry 3
CHEM 340 Organic Chemistry Lab 2
BIOL 483 Biochemistry Principles 3
HSCI 207 Nutrition fro Health Professionals 3
HSCI 301 Pathopsychology 3
HSCI 392 Nutrition Science and Community 2
HSCI 394 Nutrition Science & Food Prep 3
HSCI 402 Food Service Management 3
HSCI 492 Nutritional Assess Across Lifespan 3
HSCI 493 Diet Therapy and Intervention 3
HSCI 494 Nutrition Practicum 4
HSCI 4 Health Science Elective 6
MKTG 300 Principles of Marketing 3
Credits 44
Total Credits 120

Allied Health Completion Option – BS in Health Care Sciences

An upper division completion option is available in allied health areas such as radiation technology, dental hygiene, emergency medical or respiratory therapy. Students must complete a certificate or an associate's degree in an allied health area from an accredited program other than UCCS for the 31 credit hours to be applied to the degree. Students then complete the health science program listed below in order to be awarded a bachelor's degree, the BS in Health Care Sciences.

General Education Course Requirements

ENGL 131 Rhetoric and Writing I 3
ENGL 141 Rhetoric and Writing II 3
HSCI 206 Health Science Statistics 3
Humanities Electives (2 courses) 6
PSY 100 General Psychology 3-4
SOC 111 Introduction to Sociology 3-4
General Education Electives 6-9
Credits 30

Health Science Prerequisites

BIOL 201 Anatomy and Physiology I 4
BIOL 202 Anatomy and Physiology II 4
CHEM 101 Introduction to Chemistry I 4
CHEM 102 Introduction to Chemistry II 4
MATH 104 College Algebra 3
Science Electives 4
Social Science Electives (2) 6
Credits 29

Health Science Core Requirements Core #1
HSCI 401 Health Science Research 3
HSCI 420 Health Behavior Change 3
HSCI 452 Health Teaching 3
HSCI 463 Culture and Health 3
Credits 12

Allied Health Completions Option Requirements
HSCI459 Concepts of Health & Disease 3
Self Defined Upper Division Electives (See Advisor) . . 15
Articulation Credit for Associates Degree
or Certificate in Allied Health Area 31
Credits 49
Total Credits 120

Sports Health and Wellness Promotion – BS in Health Care Science

Option A Health and Wellness Promotion
(BS in Sport Health/Wellness)

General Education Course Requirements
ENGL 131 & 141 Rhetoric and Writing I & II
(Complete Competency Exam) 6
HSCI 206 Health Science Statistics 3
Humanities Electives (two-see LAS list) 6
PSY 100 General Psychology 3-4
SOC 111 Introduction to Sociology 3-4
General Education Electives 6-9
Credits 30

Health Science Prerequisites
BIOL 110/111 General Biology I and Lab 4
BIOL 201 & 202 Human Anatomy & Physiology I & II . 8
CHEM 101 Introduction to Chemistry I 4
HSCI 102 Personal Fitness and Wellness 3
MATH 104 College Algebra 3
PES 101 Physics for Life Sciences 4
Credits 26

Health Science Core Requirements Core #1
HSCI 401 Health Science Research 3
HSCI 420 Health Behavior Change 3
HSCI 452 Health Teaching 3
HSCI 463 Culture and Health 3
Credits 12

Sports Health and Wellness Promotion
Option Requirements
BIOL 330 Exercise Physiology 3
BIOL 455 Biomechanics/Kinesiology 3
BIOL 477 Human Metabolism 3
HSCI 207 Nutrition for Health Sciences 3
HSCI 4-Health Science Electives 9
HSCI 405-Obesity and Weight Mgt 3
HSCI 461 Sports Injury and Prevention. 3
HSCI 462 Internship 10
HSCI 464 Program Planning and Implementation 3
HSCI 467 Health Assessment 3
HSCI 495 Exercise Testing and Prescription 3
HSCI 201 Intro to Sports Health & Wellness Promotion/
Early Experience 3
HSCI 459 Concepts of Health & Disease 3
Credits 52
Total Program Credits 120

Option B Pre-Professional Track
(BS in Sport Health/Wellness)

General Education Course Requirements
ENGL 131 & 141 Rhetoric and Writing I & II
(Complete Competency Exam) 6
HSCI 206 Health Science Statistics 3
Humanities Electives (2)–see LAS list 6
PSY 100 General Psychology 3-4
SOC 111 Introduction to Sociology 3-4
General Education Electives 4-6
Credits 27

Health Science Prerequisites
BIOL 110/111 General Biology I and Lab. 4
CHEM 103 & 106 General Chemistry I & II 10
HSCI 102 Personal Fitness and Wellness 3
MATH 104 College Algebra 3
PES 101/115 Physics for Life Sciences I and Lab 5
PES 102/215 Physics for Life Sciences II and Lab 5
Credits 30

Health Science Core Requirements Core #1
HSCI 401 Health Science Research 3
HSCI 420 Health Behavior Change 3
HSCI 452 Health Teaching 3
HSCI 463 Culture and Health 3
Credits 12

Sports Health and Wellness Promotion
Option Requirements
BIOL 321 Human Physiology 4
BIOL 330 Exercise Physiology 3
BIOL 435 Human Anatomy 4
BIOL 455 Biomechanics/Kinesiology 3
CHEM 331 Organic Chemistry I 3
CHEM 481 Biochemistry 3
HSCI 207 Nutrition for Health Sciences 3
HSCI 4 Health Science Elective 3
HSCI 461 Sports Injury and Prevention. 3
HSCI 462 Internship 4
HSCI 467 Health Assessment 3
HSCI 495 Exercise Testing and Prescription 3
PSY 328 Abnormal Psychology 3
PSY 362 Developmental Psychology 3
HSCI 2–Intro to Sports Health & Wellness
Promotion/Early Experience 3
HSCI 459 Concepts of Health & Disease 3
Credits 51
Total Program Credits 120

Option C Sports Conditioning and Training (BS in Sport Health/Wellness)

General Education Course Requirements

ENGL 131 & 141 Rhetoric and Writing I & II (Complete Competency Exam) 6
HSCI 206 Health Science Statistics 3
Humanities Electives (two–see LAS list) 6
PSY 100 General Psychology 3-4
SOC 111 Introduction to Sociology 3-4
General Education Electives 6-8
Credits 29

Health Science Prerequisites

BIOL 110/111 General Biology I and Lab 4
BIOL 201 & 202 Human Anatomy & Physiology I & II . 8
CHEM 101 Introduction to Chemistry I 4
HSCI 102 Personal Fitness and Wellness 3
MATH 104 College Algebra 3
PES 101 Physics for Life Sciences 4
Credits 26

Health Science Core Requirements Core #1

HSCI 401 Health Science Research 3
HSCI 420 Health Behavior Change 3
HSCI 452 Health Teaching 3
HSCI 463 Culture and Health 3
Credits 12

Sports Health and Wellness Promotion Option Requirements

BIOL 330 Exercise Physiology 3
BIOL 435 Human Anatomy 4
BIOL 455 Biomechanics/Kinesiology 3
BIOL 477 Human Metabolism 3
HSCI 207 Nutrition for Health Sciences 3
HSCI 4 Health Science Elective 6
HSCI 405-Obesity and Weight Management 3
HSCI 403-Sports Specific Training Principles & Techniques 3
HSCI 461 Sports Injury and Prevention. 3
HSCI 462 Internship 10
HSCI 467 Health Assessment 3
HSCI 495 Exercise Testing and Prescription 3
PSY 348 Principles of Sports Psychology 3
HSCI 201 Intro to Sports Health & Wellness Promotion/Early Experience 3
Credits 53
Total Program Credits 120

Option D Senior Fitness Instructor (BS in Sport Health/Wellness)

General Education Course Requirements

ENGL 131 & 141 Rhetoric and Writing I & II (Complete Competency Exam) 6
HSCI 206 Health Science Statistics 3
Humanities Electives (two–see LAS list) 6
PSY 100 General Psychology 3-4
SOC 111 Introduction to Sociology 3-4
General Education Electives 6-9
Credits 30

Health Science Prerequisites

BIOL 110/111 General Biology I and Lab 4
BIOL 201 & 202 Human Anatomy & Physiology I & II . 8
CHEM 101 Introduction to Chemistry I 4
HSCI 102 Personal Fitness and Wellness 3
MATH 104 College Algebra 3
PES 101 Physics for Life Sciences 4
Credits 26

Health Science Core Requirements Core #1

HSCI 401 Health Science Research 3
HSCI 420 Health Behavior Change 3
HSCI 452 Health Teaching 3
HSCI 463 Culture and Health 3
Credits 12

Sports Health and Wellness Promotion Option Requirements

BIOL 330 Exercise Physiology 3
BIOL 455 Biomechanics/Kinesiology 3
GRNT 300 Intro to Gerontology* 3
GRNT 462 Sociology of Aging* 3
GRNT 463 Psychology of Aging* 3
HSCI 280 Biomedical Aspects of Aging* 3
HSCI 4-Health Science Electives (Choose specific electives for GRNT minor*) 6
HSCI 462 Internship (In Gerontology) 10
HSCI 464 Program Planning & Implementation 3
HSCI 467 Health Assessment 3
HSCI 474 Aging, Physical Activity & Health 3
HSCI 495 Exercise Testing and Prescription 3
HSCI 201 Intro to Sports Health & Wellness Promotion/Early Experience 3
PSY 362 Developmental Psychology OR PSY 328 Abnormal Psychology 3
Credits 52
Total Program Credits 120

**Required courses for Gerontology minor. To achieve minor, a Professional Field Experience course must also be completed. Completion of minor requires a total of 21 credit hours.*

Minor Options in Health Care Science

Minors are available in two areas of Health Care Science: Forensic Health Science, and Sports Health and Wellness Promotion. Minors may be obtained by students enrolled in any undergraduate degree program.

Health Science Minor Requirements

- a minimum of 20 credit hours chosen from a list of approved courses
- no more than 9 credit hours of transfer work may be applied

- a C- or better grade in all coursework
- GPA of the minor courses must be 2.0 or better.

Some courses that apply to the minor may have prerequisites and those prerequisites do not necessarily apply to the minor hours.

Forensic Health Science Minor Option Curriculum

HSCI 430 Sexual Assault Implications for Health Care Delivery
*HSCI 431 Introduction to Forensic Science
*HSCI 432 Investigation of Injury and Death
*HSCI 433 Crime Scene & Crime Lab
*HSCI 434 Psychosocial and Legal Aspects of Forensic Science
HSCI 437 Violence and Human Rights Issues
HSCI 438 Substance Abuse
HSCI 439 Forensic Photography
HSCI 440 Forensic Practicum
HSCI 441 Forensic Chemistry and Toxicology
**Certificate granted when all are completed.*

Sports Health and Wellness Promotion Minor Option Curriculum

BIOL 330 Exercise Physiology
BIOL 455 Biomechanics/Kinesiology
HSCI 467 Health Assessment
HSCI 459 Concepts of Health and Disease
HSCI 452 Health Teaching
HSCI 461 Sports Injury and Prevention
HSCI 495 Exercise Testing and Prescription
HSCI 464 Program Planning & Implementation
HSCI 403 Sports Specific Training Principles and Teaching
HSCI 405 Obesity & Weight Management
HSCI 420 Health Behavior Change
HSCI 463 Culture & Health

Outcomes, Graduate Nursing

- Demonstrates competence in the role of an advanced practice nurse
- Integrates theory and research into practice
- Manages client's health problems in a variety of settings
- Uses creativity and critical thinking to facilitate transpersonal healing
- Promotes holistic health through collaborative relationships
- Integrates the moral caring imperative in advanced nursing practice.

Master of Science in Nursing – MSN

Beth-El College of Nursing and Health Sciences offers a program of advanced study leading to a Master of Science in Nursing degree, building upon and expanding the knowledge, values and skills of the baccalaureate prepared nurse. In addition to taking courses which prepare for expanded clinical roles, the student gains experience with research, health care policy, nursing theory, clinical problem solving/critical thinking, and creativity.

Students choose a specialty of nurse practitioner, clinical nurse specialist, or nursing administration. Additional credit hours are required if students choose a dual clinical role. Students choose a major in adult, family, community health, gerontological nursing. A non-clinical major in nursing administration is also available upon approval.

The MSN has three distinct bodies of knowledge; graduate core, advanced practice core and specialty courses related to the selected clinical specialty. All graduate core and advanced practice core courses are offered on-line as well as on site. The Adult Nurse Practitioner and Family Nurse Practitioner options may be taken entirely on-line. Other specialty courses may be blocked to facilitate part-time residency (CNS, minor courses). Nursing Administration courses offer on-line/blocked method.

A post certificate masters completion option is available upon approval. Post masters certificates are available in selected specialties.

MSN Application and Admission

MSN Admission Criteria

- GPA of 3.0 in all previous coursework
- Completion of an accredited baccalaureate degree in nursing
- Prerequisite undergraduate courses include: Introduction to Statistics, Nursing Research & Health Assessment
- Vita documenting current work experience (Adult 1 yr.; Family 2 yr.)
- Current unrestricted Registered Nurse license or license in the state where clinical practice will take place
- Passing score on the Test of English as a Foreign Language (TOEFL) if native language is not English
- Computer technology skills

MSN Graduate Application

If a student does not meet eligibility requirements for admission, petitioning of the Graduate Committee for provisional status is possible.

Graduate Academic Policies

Advising

Graduate Students are responsible for an initial meeting with the Director of the Graduate Program to establish a

degree pan or study. Students are then assigned an advisor to assist in any academic issues. All changes to academic degree plan of study must be approved by the academic advisor. New student orientation is provided each semester.

Transfer Students

A transfer student is a student who is seeking the MSN degree, has attended another institution, and meets all MSN admission requirements. Articulation course work may be required of a transfer student. The student must petition the Graduate Department for acceptance of transfer credits. No more than 12 credit hours can be accepted from a non-CU campus.

RN to MSN Program

The RN to MSN program is designed for individuals with an associate degree in nursing and a bachelors degree in a non-nursing discipline, or registered nurses with baccalaureate degrees in majors other than nursing. Specific nursing courses provide students knowledge to facilitate their transition to graduate level nursing courses.

Students apply for admission to the MSN and must meet all MSN admission requirements except graduation from NLN accredited BSN program. Students will be admitted provisionally to the graduate program pending completion of 18 credits of undergraduate prerequisite course work with a grade of B or better.

Post Certificate MSN Option

For students with a Nurse Practitioner National Certificate in neonatal, women's health, adult or geriatric nursing seeking the MSN, masters core courses and advanced practice courses are required. Individual certificate program materials are evaluated for transfer credit. Specialty courses needed will be determined individually after transcript evaluation. Interviews may be required.

MSN Degree Requirements

- 39-53 graduate level credits
- 3.0 or better in all required nursing courses
- Final comprehensive examination or thesis
- Completion of degree requirements within five years

Students are admitted to candidacy following successful academic advisor approval and comprehensive examination or thesis defense

On-line Options

Core courses in the graduate program are offered on-line. For further information contact the Department (719) 262-4424. The Adult Nursing Practitioner, Family Nursing Practitioner, and Nursing Administration Specialty courses are offered totally on-line. The CNS core is offered on-line, with many of the specialty courses offered in one-week blocks.

MSN Degree Curriculum

Core Course Requirements
(Required of all MSN Students)

NURS 610 Philosophy and Theory of Nursing Practice 3
NURS 611 Advanced Nursing Practice and Health Care Policy 3
NURS 612 Research and Data Management 4
NURS 702 Clinical Research Application 3
OR NURS 700 Thesis 5
Credits 16

Advanced Practice Nursing Core
*(Required of all MSN Students – *courses and hours are dependent on degree specialty)*

*NURS 628 Clinical Pharmaco-therapeutics 4
*NURS 673 Advanced Health Assessment 3-4
*NURS 674 Pathophysiology 3
NURS 627 Family Theory 3
Credits 10-12

MSN – Nurse Practitioner Option Specialty Courses
(Nurse Practitioner Students select from the following options)

Adult Nurse Practitioner

NURS 678 Primary Care I 4
NURS 679 Primary Care II 3
NURS 784 Practicum 6
Credits 41

Adult/Geriatric Nurse Practitioner

NURS 622 Collaborative Health Care Management w/Elderly 3
NURS 623 Physiological Problems of Aging 3
NURS 678 Primary Care I 4
NURS 679 Primary Care II 3
NURS 784 Practicum 6
Credits 47

Family Nurse Practitioner

NURS 662 Family I 4
NURS 664 Family II 4
NURS 667 Family III 3
NURS 789 Practicum 6
Credits 50

MSN – Clinical Nurse Specialist (CNS) Option

Adult Health CNS

NURS 658 CNS Acute Care Mgt 3
NURS 659 CNS Chronic Care Mgt. 3
NURS 666 Health Promotion & Dz Mgt 3
NURS 782 CNS Practicum 5
NURS 615 CNS Seminar 3

Community Health CNS

NURS 663 Community & Rural Health 3

NURS 666 Health Promotion & Dz Mgt 3
NURS 782 CNS Practicum 5
NURS 615 CNS Seminar 3

Courses related to the selected clinical specialty provide the student an opportunity to use empirical, ethical, esthetic, personal, and socio-political knowledge in the clinical setting specific to the student's chosen advanced practice role.

MSN – Nursing Administration Option

The Nursing Administration option is designed to prepare qualified individuals for management careers in hospitals, health maintenance organizations, long-term care facilities, health departments and other health care organizations. This option is done in collaboration with the College of Business.

Course Curriculum

The Nursing Administration Option curriculum includes graduate nursing core courses (17 credits) plus 27 credits in specialty administration courses.

NURS 629 Resource Management: Budget and Finance . 3
NURS 705 Health Care Ethics and Law 3
NURS 704 Health Care Administration I 3
NURS 706 Health Care Administration II 3
BAD 680 New Venture Management or other Business Elective 3
NURS 790 Administrative Internship 3
NURS 791 Administrative Practicum 3
Electives 6
Credits 44

RN to MSN Option Curriculum

HSCI 206 Statistics for Health Science 3
NURS 301 Pathophysiology 3
NURS 305 Health Assessment 3
NURS 445 Community Health Nursing 6
NURS 401 Nursing Research 3

Course Requirements for Prescriptive Authority

Specific courses may differ for the selected specialty but must include Advanced Pathophysiology, Advanced Assessment, and Clinical Pharmacotherapeutics. State requirements differ in various state jurisdictions; currency of course work and practice hours as an APN may be required.

Program Minors

A minor can be received by taking nine to twelve hours in one of the following specialty focuses: Investigative Forensic Nursing, Forensic Science & Correctional Nursing, Nursing Education, Nursing Administration & Geriatric Nursing.

Certificate Programs

Beth-El College of Nursing and Health Sciences offers two levels of certificate programs: **Undergraduate Certificate and Graduate Certificate**

Certificate programs can be taken through regular university enrollment or the Beth-El division of extended study.

Certificate Options

Forensic Studies (Undergraduate)

HSCI 431 Intro to Forensic Science 3
HSCI 432 Investigation of Injury & Death 3
HSCI 433 Crime Scene & Crime Lab 3
HSCI 434 Psychosocial & Legal Aspects of Forensic Science 3

Forensic Nursing (Graduate)

NURS 631 Forensic Science & Correctional Nursing . . . 3
NURS 630 Sexual Assault 3
NURS 634 Psychosocial & Legal Aspects of Forensic Science 3
NURS 637 Violence & Human Rights 3

Nursing Education (Graduate)

NURS 619 Educational Measurement & Evaluation . . . 3
NURS 620 Curriculum Development & Nursing 3
NURS 621 Transformational Teaching Strategies 3
NURS 771/772 Clinical Practicum in Education/ Classroom Practicum in Education 3

Nursing Administration (Graduate)

NURS 629 Resource Management: Budget & Finance . . 3
NURS 704 Health Care Administration I 3
NURS 705 Health Care Ethics & Law 3
NURS 706 Health Care Administration II 3

Holistic Nursing (Graduate)

NURS 642 Dynamics of Unity 3
NURS 643 Psychophysiology of Holistic Health 3
NURS 647/648 Holistic-Praxis: Therapies of Imagination/Holistic Praxis:Therapies of Human Energy Fields 3/3

Geriatric Nursing (Graduate)

NURS 622 Collaborative Health Care/ Management of the Elderly 3
NURS 623 Physiological Problems of Aging 3
NURS 660 Palliative Care in Advanced Practice Nursing 3

Post-Master's Degree Certificates in Nursing

Students with master's degrees in nursing may apply for these certificate programs: adult, family, and adult/gerontology. If the student's initial master's degree did not require a course in advanced pathophysiology, the student is required to take Advanced Pathophysiology. Please request information from the college.

Certificate Application Procedures contact:

UCCS Undergraduate and Certificate Programs:
(719) 262-3000 or 1-800-990-UCCS

E-mail: Admissions and Records: ADMREC@MAIL.UCCS.EDU on the web: http://www.uccs.edu

Graduate Program: Department of Graduate Nursing (719) 262-4424

Extended Studies: (719) 262-4486
Academic Policies website http://web. uccs. edu/bethelstudenthandbook

Master of Sciences MSc

The Department of Health Sciences,offers a program leading to the degree of Master of Sciences (MSC) in Forensic Science, Sports Medicine, or Health Promotion. Graduate students pursue coursework in these areas of study and related disciplines (biology, chemistry, psychology, and sociology), providing the students with a diverse integrated curriculum of study.

MSc Admission Requirements

- Bachelor degree from an accredited College of University
- Undergraduate GPA of 3.0 or above

MSc Application

Applicants must submit Part I and II of the Graduate Application Form.

Contact Person – MSc Admissions: Hope Hoch (719) 262-4421 hhoch@uccs.edu

Transfer Credits

- Up to 9 credit hours of UCCS coursework with an earned grade of "B" or better may be requested for transfer; these are computed into the student's GPA.
- Up to 9 credit hours of coursework with a grade of "B" or better completed at an institution other than UCCS may be requested for transfer after completion of 9 credit hours of coursework as a regular admit degree status student into the MSC program. These credit hours are not computed into the student's GPA.
- Courses applied to a graduate degree elsewhere or within the CU system cannot be transferred for MSC credit.

MSc – Forensic Science Option: Course Requirements

General Requirements

- 30 semester hours, of which 15 or more must be at the graduate level (500 or above)
- a minimum of 18 credit hours of upper division and graduate courses in Forensic Science offered by the College of Nursing and Health Sciencs
- a minimum of 6 credit hours from a secondary department, which may be any of the following: Biology, Chemistry, Psychology and Sociology
- 6 optional courses at either the undergraduate or graduate level.

Course Requirements

Required and elective courses are listed below:

HSCI 630 Sexual Assault: 3
HSCI 631 Intro to Forensic Science** 3
HSCI 632 Investigation of Death & Injury 3
HSCI 633 Crime Scene and Crime Lab" 3
HSCI 634 Psychosocial Aspects of Forensic Science** . . 3
HSCI 636 Legal Aspects of Forensic Science 3
HSCI 637 Violence and Human Rights Issues 3
HSCI 439 Forensic Photography 3
HSCI 441 Forensic Chemistry and Toxicology 4
HSCI 702 Health Science Research** 3

Outcomes, Forensic Science, MSc

- Demonstrate an increased knowledge of the major theories and concepts of Forensic Science
- Demonstrate an understanding of and the ability to apply the fundamentals of research methodology and statistical analysis to the interpretation and evaluation of scientific data and research reports.
- Be prepared for jobs or advanced education in a field of Forensic Science
- Demonstrate an overall satisfaction of the degree program upon completion.

Forensic Advising:

Dr. Glenda Reimer (719) 262-4484 greimer@uccs.edu

MSc – Sports Medicine Option: Course Requirements

The Department of Health Sciences offers a sports medicine degree that is designed to provide course work and practical experience necessary to obtain advanced knowledge and skills in the disciplines of Sports Medicine. The ability to create a degree around the individual student's interests is a priority of this degree option.

Thesis Option – Curriculum:

HSCI 560 Biomechanics of Muscular/Skeletal Injury . . . 3
HSCI 601 Graduate Degree Seminar 1
HSCI 605 Advanced Evaluation of Lower Extremity . . . 3
HSCI 535 Advanced Functional Human Anatomy 3
HSCI 577 Human Metabolism 3
HSCI 608 Advanced Evaluation of Upper Extremity . . . 3
HSCl/BIOL Elective 3
HSCI 612 Seminar in Sports Medicine (Administration) 3
HSCI 702 Health Science Research 3
HSCI 615 Athletic Training Internship 3
HSCI/BIOL Elective 3
HSCI 700 Thesis 6
Credits 37

Project Option–Curriculum:

HSCI 560 Biomechanics of Muscular/Skeletal Injury . . . 3
HSCI 601 Graduate Degree Seminar 1
HSCI 605 Advanced Evaluation of Lower Extremity . . . 3

HSCI 535 Advanced Functional Human Anatomy 3
HSCI 577 Human Metabolism 3
HSCI 608 Advanced Evaluation of Upper Extremity . . . 3
HSCl/BIOL Elective 3
HSCI 612 Seminar in Sports Medicine (Administration) 3
HSCl/BIOL Elective 3
HSCI 702 Health Science Research 3
HSCI 615 Athletic Training Internship 3
Credits 37

Outcomes, Sports Medicine, MSc

- Demonstrate an increased knowledge of the major theories and concepts of Sports Medicine
- Demonstrate an understanding of and the ability to apply the fundamentals of research methodology and statistical analysis to the interpretation and evaluation of scientific data and research reports.
- Be prepared for jobs or advanced education in a field of Sports Medicine
- Demonstrate an overall satisfaction of the degree program upon completion

Sports Medicine Advising:
David Suprak, PhD (719) 262-4315 dsuprak@uccs.edu

MSc – Health Promotion Option Course Requirements

The Master of Sciences degree in Health Promotion is designed to prepare students for advanced study and practice in Health Promotion related areas. Extra emphasis will be directed towards improving health and wellness worksite setting.

Thesis Option–Curriculum:
HSCI 602 Health Risk Management 3
HSCI 601 Graduate Degree Seminar 1
HSCI 603 Fitness & Wellness in the Workplace 3
HSCI 702 Health Science Research 3
MGT 600 Leading & Managing in Changing Times . . . 3
HSCI 604 Advanced Health Behavior Change 3
HSCI 606 Advanced Program Planning and Implementation 3
HSCI – Elective 3
HSCI 607 Advanced Practicum 3
HSCI 700 Thesis 3
HSCI 607 Advanced Practicum 3
HSCI 700 Thesis 3
Credits 34

Project Option Curriculum:
HSCI 602 Health Risk Management 3
HSCI 601 Graduate Degree Seminar 1
HSCI 603 Fitness & Wellness in the Workplace 3
HSCI 702 Health Science Research 3
MGT 600 Leading & Managing in Changing Times . . . 3
HSCI 604 Advanced Health Behavior Change 3
HSCI 606 Advanced Program Planning and Implementation 3
HSCI – Elective 3
HSCI 607 Advanced Practicum 6
HSCI 607 Advanced Practicum 3
HSCI 609 Graduate Project Seminar 3
Credits 34

MSc Health Promotion Advising:
David Suprak, PhD (719) 262-4315, dsuprak@uccs.edu

Doctorate of Nursing Practice (DNP)

The Doctorate of Nursing Practice (DNP) represents the highest level of preparation in nursing practice based on nursing science, and prepares leaders for nursing practice. The DNP program offered by the Beth-El College of Nursing and Health Sciences at the University of Colorado at Colorado Springs (UCCS) builds upon the base of a Master's Degree in Nursing Preparation in Nurse Practitioner (NP) and Clinical Nurse Specialty (CNS) programs and upon excellence of practice based on validations by standard sets of competencies in national certification processes and specialty credentials.

The UCCS program is based upon the essential concepts of the DNP curriculum as approved by the American Association of Colleges of Nursing in September 2005, and the accrediting body for DNP programs, the Commission of Collegiate Nursing Education (CCNE).

The DNP program is initially offered as a post master's option that builds upon and expands the competencies of the master's prepared Nurse Practitioner and Clinical Nurse Specialist, providing an extended transition period during which nurses with master's degrees would be recognized to be fully credentialed for current advanced practice roles (start date May 2007). This transition period will be necessary to ensure multiple entry points into practice-focused doctoral programs. The transition period will allow advanced practice nurses (APNs) currently practicing as NPs or CNSs, an opportunity to earn a practice doctorate.

The DNP program will also provide a post Bachelor of Science in Nursing (BSN) entry point (projected start date May 2010).

Application Materials

- Two copies of official transcripts from all colleges or universities attended
- Submission of three letters of reference (professionals or nursing educators)
- Curriculum vitae and completion of application essay
- Interview in either person or by phone.
- Completion of the UCCS Beth-El College of Nursing and HS application, Part I and II, and application fees

Admission Requirements

- Active RN license in State of Practice
- Master of Science Degree in Nursing from an accredited (CCNE/NLN) program
- Undergraduate GPA:3.0; Graduate GPA 3.3
- National Certification as NP or CNS, or CNS portfolio reflecting expertise

Prerequisite Courses

In addition to an MSN and National Certification as APN, applicants must have the following courses or equivalents for full admission. Courses may be taken prior to admission via extended studies offerings if not previously awarded. Provisional admission status is in effect until courses are successfully completed.

N610 Nursing Theory and Philosophical Foundations

N611 Health Care Policy and Advanced Practice Nursing

N612 Advanced Nursing Research Graduate Level Statistics (pre or co-requisite)

The DNP admissions standards differ from the UCCS Graduate School admissions in that NP/CNS National Certification and RN license are required as well. Prerequisite graduate courses in nursing theory, research and policy are indicated only if MSN programs were in deficit of this core course.

Doctor of Nursing Practice Advanced Level Course Curriculum: Post-Masters

Required Courses

NURS701 Advanced Clinical & Holistic Care for Advanced Practice Nursing 3
NURS703 Advanced Heath Care Policy, Ethics and Law 3
NURS707 Population Based Health Care for Improving the Nation's Health 3
NURS708 Clinical Nursing Scholarship for Evidenced-Based Practice. 3
NURS709 Business, Finance & Entrepreneurship for Advanced Practice Nursing 3
NURS710 Organizational Systems Leadership and Quality Improvement 3
NURS800 DNP Clinical Residency 3
NURS801 DNP Capstone Proposal 3
NURS802 DNP Capstone Project 3

Clinical Elective Specialty Course (see list below) 9
(students must take three courses from one category)

Forensic Nursing

NURS631 Forensic and Correctional Nursing 3
NURS630 Sexual Assault 3
NURS634 Psychosocial/ Legal aspects of Forensic. . . 3

Nursing Education

NURS619 Educational Measurement and Evaluation . 3
NURS620 Curriculum Development in Nursing. . . . 3
NURS621 Transformational Teaching Strategies. . . . 3

Holistic Nursing

NURS648 Holistic Praxis: Therapies Energy Fields . . 3
NURS643 Psychophysiology of Holistic Health 3
NURS647 Holistic-Praxis: Therapies of Imagination . 3

Geriatric Nursing

NURS622 Collaborative Health Mgt of Elderly 3
NURS623 Physiological Problems of Aging 3
NURS660 Palliative Care in APN 3

Total Credits 36

Graduate School of Public Affairs

Kathleen M. Beatty, Dean
Dwire Hall, Room 356
Telephone: (719) 262-4182
Fax: (719) 262-4183
cudenver.edu/gspa

Established in 1972, the Graduate School of Public Affairs (GSPA) provides graduate level, professional training for managers and policy-makers in public, nonprofit, and criminal justice organizations. The School offers the Master of Public Administration (MPA), the Master of Criminal Justice (MCJ), and, beginning in 2007, GSPA also offers a Bachelor of Arts (BA) in Criminal Justice. GSPA students can also pursue a more limited course of study, earning Certificates in Public Management, Nonprofit Management, Criminal Justice, or Homeland Defense.

GSPA offers a select group of students the opportunity to enhance their potential for executive leadership and success in public service careers. The curriculum reflects the philosophy that management in public and nonprofit organizations presents unique challenges and opportunities because of our obligation to serve the public interest. All GSPA students take a common core of courses, then take electives focusing on public, nonprofit, or criminal justice management.

During their course of study, students learn to perform research, to utilize new technological resources, to manage organizational finances, and to fully utilize and manage human resources. Emphasis is placed on the theoretical foundations of public service and the special ethical considerations of work in the public and nonprofit sectors. Elective courses address specific student interests.

Students graduate with a sophisticated understanding of the public and nonprofit sectors and their interdependence, and of contemporary principles of organizational development and management.

For the benefit of many public affairs professionals, GSPA has regionalized the program. This revolutionary model calls for professors – instead of students – to commute between campuses, making a far wider range of course work accessible to students and practitioners. Resident GSPA faculty have earned doctorates in their fields of specialization and are nationally recognized scholars. They conduct research of interest to scholars and practitioners in the field, as well as research on issues of concern in Southern Colorado. GSPA also invites practitioners who are recognized leaders in their area of expertise to teach selected courses in GSPA's degree programs.

The Graduate School of Public Affairs is a place where the University meets and exchanges ideas and information with the local, state, and national communities. GSPA also sponsors conferences, training programs, and other opportunities for lifelong learning. These activities help to create a community of public servants, and they ensure that the University and the community share their rich resources.

Vision

To enable students and professionals to discover a vast world of ideas, research, case studies and perspectives that can propel them years ahead in their ability to think analytically about the society's issues.

Mission

The mission of the Graduate School of Public Affairs is:

- To improve the quality of public service in Colorado and the Rocky Mountain West.
- To offer an excellent program of professional education and training.
- To prepare public and nonprofit managers for leadership in a rapidly changing environment.

Accreditation

The Graduate School of Public Affairs is accredited by the National Association of Schools of Public Affairs and Administration's (NASPAA) Commission on Peer Review and Accreditation.

Faculty

Dean and Professor: Kathleen Beatty; ***Associate Dean:*** Terry Schwartz; ***Professors:*** Donald Klingner and Mark McConkie.

Academic Advising

Undergraduate: Contact the Student Success Center, Main Hall 2nd Floor, (719) 262-3260

Graduate: Inquiries about application procedures and graduate degree requirements should be directed as follows: Graduate School of Public Affairs at UCCS. (719) 262-4182 OR (800) 990-8227 ext. 4182

Programs of Study

Discipline	Minor	BA	Certificate	Master's
Criminal Justice	Minor	BA	Certificate	MCJ*
Homeland Defense			Certificate	
Non-Profit Management			Certificate	
Public Administration				MPA, Rocky Mtn MPA (online)
Public Mangement			Certificate	

**While all course work for the MCJ degree may be completed on the Colorado Springs campus, the degree is awarded through the University of Colorado at Denver and Health Sciences Center.*

A PhD in Public Affairs is available through the Denver campus.

GSPA General Academic Policies

Undergraduate

Course Load

The minimum full-time course load is 12 hours. The normal maximum is 18 hours. If a student wishes to take more than 18 hours per semester, special permission must be obtained from the dean of the college, through the Student Success Center. These totals include all courses taken for credit at any of the university's three campuses but do not include correspondence courses, noncredit courses, or courses taken at other institutions

To receive credit, the student must be officially registered for each course.

Students who hold or expect to hold full-or part-time employment while enrolled in the college must register for course loads they can expect to complete without unusual difficulty, as outlined in the General Information section of this *Bulletin*.

Grading Policies

Students should familiarize themselves with the General Information section of this *Bulletin*, as well as with the introductory pages of each semester's official *Schedule of Courses,* for information about the university grading system and the current procedures for registering on a pass/fail basis, for dropping and adding classes, and for withdrawing from the university.

Academic Advising

Students are expected to assume responsibility for planning their academic programs in accordance with college rules, policies and major requirements. Advisors in the Student Success Center can answer questions about college policies and graduation requirements, and will assist students in course selection. Students expecting to graduate within one or two semesters should schedule a senior advising appointment by calling 262-3260 or by going to the Student Success Center.

Although the advisors provide summary sheets of major requirements, it is the faculty who are responsible for major advising. It is the student's responsibility to arrange such faculty consultation for questions involving major requirements and graduate school applications. Students should schedule appointments to discuss their questions well in advance of registration.

Academic Probation

Students who have attempted at least 12 hours at UCCS and whose University of Colorado cumulative grade point average falls below 2.0 will be placed on academic probation. While on probation, students will be required to achieve a minimum acceptable grade point average each term (determined by the individual academic record) or be subject to academic suspension. Students placed on probation will be informed in writing concerning their academic status and the conditions of continued attendance.

A more comprehensive statement on the academic probation policy is available in the Student Success Center in Main Hall.

Scholastic Suspension

The normal suspension period in GSPA is one academic year, excluding the summer semester. Students suspended for the first time will be reinstated after the normal suspension period has been served upon reapplying for admission to the university.

Students suspended for the first time may be reinstated before the end of the normal suspension period by:

- Achieving a 2.5 grade point average on all summer or extended studies work attempted at the University of Colorado since suspension. Six hours minimum must be completed.
- Raising the cumulative University of Colorado grade point average to at least 2.0 by completing summer or extended studies coursework at the University of Colorado.
- Achieving a cumulative grade point average of at least 2.0 by attending another institution. The cumulative grade point average in this instance is the grade point average at the University of Colorado combined with coursework taken at all other institutions.

Independent Study

Students who have completed a considerable portion of their undergraduate studies with distinction may register for independent study with the approval of the BACJ Director. The amount of credit to be given for an independent study project shall be arranged with the instructor.

Not more than eight hours of independent study may be credited toward the major, and not more than 16 hours toward the bachelor's degree. No student may register for more than eight hours of independent study in any one term (summer, fall, or spring).

Graduate

Standards of Performance

To be in good standing, students must have an overall grade point average of not less than a 3.0 in all course work. The academic performance of each student will be reviewed at the end of each semester. A student who has a grade point average less than 3.0 will, at the dean's discretion, be placed on probation or suspended from the program. Non-degree students who do not maintain a 3.0 grade point average may not be allowed to enroll in any additional GSPA courses. Any student receiving a grade of F in any course is automatically placed on probation.

After a student has been placed on probation, he or she has a maximum of two semesters (fall and spring) to raise his or her grade point average to 3.0. Courses taken to raise the cumulative grade point average must be applicable to the degree and must be taken in the two semesters (fall and spring) immediately following the semester in which the

cumulative grade point average fell below 3.0. Failure to raise the cumulative grade point average to 3.0 in the time period outlined will result in immediate suspension from the program.

Time Limit
Master's degree students must complete all course work and degree requirements within six years of registration in their first course. Exceptions must be approved in writing by the dean.

Transfer Credit
Up to nine semester hours of appropriate graduate work from an accredited college or university may be credited toward the Master of Public Administration or Master of Criminal Justice degree. Courses to be transferred should have been taken within five years of the request for transfer of credit. All transfer work must be approved in writing by the dean.

Undergraduate Programs

Undergraduate Admission

Candidates for regular admission to the Bachelor of Arts in Criminal Justice program are expected to meet the general requirements for undergraduate admission to the University, as described in the General Information section herein. The *Bulletin* that governs a student's graduation requirements is the one in effect at the time of a student's most recent admission into the college of the student's degree program.

BA, Bachelor of Arts in Criminal Justice – BACJ

The BACJ program utilizes an interdisciplinary approach to capture both the academic liberal arts emphasis and the professional and policy knowledge required to educate criminal justice professionals.

Outcomes, BACJ
Criminal Justice is a broad and increasingly interdisciplinary field. Students who complete the BACJ will:

- Be able to draw on multiple disciplines and research traditions to identify and understand the social and behavioral contributors to crime and delinquency
- Have a comprehensive understanding of the institutions in the criminal justice system and how politics and policy making affect these institutions
- Have effective critical thinking and oral and written communication skills
- Have a comprehensive knowledge of the ethical concerns of the criminal justice field
- Understand how perceptions of the criminal justice system vary cross-culturally, and how such differences influence policy and public perception

In addition, the BACJ will provide the foundation for students who are interested in pursuing the Master of Criminal Justice degree.

Requirements for the BACJ degree

General Requirements
Students completing a BACJ at UCCS will complete a minimum of 120 credit hours, including the 45 credit hour general education requirements as outlined in LAS and the following requirements:

- 21 undergraduate required Criminal Justice core credit hours
- 15 elective credit hours in criminal justice or ancillary fields (as approved)
- 39 other elective credit hours
- a 3-credit-hour internship for those who do not have experience in the field of criminal justice
- a minimum of a C (2.0) in each undergraduate course applied to satisfy degree requirements.

Required Coursework

Core Courses
CJ1001 Introduction of Criminal Justice
CJ2041 Crime Theory and Causes
CJ3100 Criminal Justice Research Methods
CJ3150 Statistics for Criminal Justice
CJ4042 Corrections
CJ4043 Law Enforcement
CJ4044 Courts and Judicial Process

15 Elective credits in Criminal Justice or Ancillary Field

Minor in Criminal Justice

A minor in Criminal Justice will require 18 hours in Criminal Justice and include the following courses:

Required
CJ1001 Introduction to Criminal Justice
CJ2041 Crime Theory and Causes

Electives
At least one of the following:
CJ1001 Introduction to Law Enforcement
CJ4042 Corrections
CJ4044 Courts and Judicial Processes
Additional elective courses in Criminal Justice or ancillary fields to meet required course credit.

GSPA Graduate Programs

Graduate Admission

Prerequisites

- A bachelor's degree from a college or university of accredited standing, with grades sufficiently high to indicate ability to pursue graduate work. The

applicant may have majored in any field for the undergraduate degree

Application Materials

- Two sets of official transcripts from all higher education institutions
- Three recommendations by qualified references that establish the applicants' personal qualifications for graduate work. Recommendations may be from professors, employers, and/or others who are acquainted with the prospective student's professional and/or academic work.
- The Graduate Record Examination (GRE), the Graduate Management Aptitude Test (GMAT), or the Law School Admissions Test (LSAT) unless applicant meets these requirements for waiver: the candidate already has a master's degree in another field OR the applicant has an undergraduate grade point average of 3.0 or better and can demonstrate significant professional accomplishment through employment in management or policy-making positions for a minimum of ten years or the equivalent.

Deadlines

Applicants should submit all admissions materials by July 1 for the fall semester, December 1 for the spring semester, and May 1 for the summer term. Review of applications is conducted on a continuing basis.

Students who have missed the deadline for the upcoming semester may register as non-degree students. Up to twelve credit hours of public administration or criminal justice course work taken as a UCCS non-degree student may be applied to the MPA or MCJ degree program. Non-degree student application forms are available in the Office of Admissions.

Master of Criminal Justice Degree – MCJ

The Master of Criminal Justice (MCJ) program is designed for students interested in comprehensive professional graduate education in the field of criminal justice. It is intended to develop in the student a fundamental understanding of the basic fields within criminal justice and of background material from supporting disciplines that would enable the student to adapt to many operational specializations. As an academic and professional field of study, this program is dedicated to preparing men and women not only to administer the system as it presently exists but also to evaluate, to analyze and to change – to become pioneers in accelerating the shaping of a rational and responsive criminal justice system.

To deal with this system effectively, research design capability must be developed along with the skills required for the ordering and analysis of empirical data. This course of study will also prepare the student to be an innovator in crime control and prevention through course work dealing with strategies and skills for promoting individual, organizational, and social change.

Requirements for the MCJ Degree

General Requirements

- A minimum of 36 credit hours of appropriate graduate study, including a minimum of 27 credit hours in criminal justice. The remaining courses for the degree may be under the criminal justice heading or under another discipline, with prior written approval of the faculty advisor.
- A grade point average of B (3.0 on a 4-point scale) or better is required for degree candidacy
- Grades of B- or better in all required courses. Credit will not be counted for any course in which a student earns a grade of C- or lower.
- No more than six credit hours of independent study

Course Requirements

Core Courses
CJ 5000 Law and Social Control
CJ 5100 Administration of Criminal Justice
CJ 5120 Nature and Causes of Crime
CJ 5321 Research Methods in Criminal Justice.

Elective Courses
Completion of 21 semester hours of electives. Elective courses include a mixture of specialized courses, workshops, and other formats. Students may choose to use these elective hours to build an area of concentration designed to meet individual needs. Where appropriate, students may include specialized courses offered by other departments and schools of the University, with prior written approval of the faculty advisor.

Field study in criminal justice.
Students who have not had experience in a criminal justice organization are required to complete CJ 6910 Field Study in Criminal Justice. A minimum of 240 hours of supervised work is required to earn three hours of credit. All required core courses must be completed before enrolling in C16910.

Advanced Seminar/Professional Practicum.
This course presents students with the opportunity to apply knowledge gained in course work to a question of interest drawn from their current or future careers in criminal justice. The Advanced Seminar/Professional Practicum is taken in the final semester of the student's program. It allows the student to apply the knowledge and skills gained in his or her course work through in-class discussions and individual or group projects. All core courses must be completed before a student enrolls in the advanced seminar.

Master of Public Administration Degree – MPA

The Master of Public Administration (MPA) program serves the needs of pre-service students who wish to begin a career in the management of public or nonprofit organizations, mid-career public or nonprofit sector professionals who

wish to enhance their potential for career advancement, and people from the private sector who intend to move into the public or nonprofit sectors. The MPA is a broadly recognized credential for public service management at all levels of government and in many nonprofit organizations. It also serves as a foundation for doctoral work in the field of public administration.

The curriculum of the MPA program provides students with a range of theoretical and practice-based concepts in topical areas such as the field of public administration, leadership, ethics, public policy, methods of conducting research, and human resources and financial management. The curriculum also includes a variety of elective courses that allow students to tailor their programs to their particular career interests.

Outcomes, MPA

- Make use of the broad base of knowledge and research in public and nonprofit administration and policy
- Communicate effectively in speaking and writing
- Apply critical thinking skills to solve problems in public and nonprofit settings in a manner that will increase the public good

General Requirements for the MPA Degree

- A minimum of 36 semester hours of graduate course work
- A grade point average of B (3.0 on a 4-point scale) or better
- Grades of B- or better in all required courses. Credit will not be counted for any course in which a student earns a grade of C- or lower.

Course Requirements

Six core courses or approved equivalents:
PAD 5001 Introduction to Public Administration and Public Service
PAD 5002 Organizational Management and Change
PAD 5003 Research and Analytic Methods
PAD 5004 Economics and Public Finance
PAD 5005 The Policy Process and Democracy
PAD 5006 Ethics and Leadership.

Students are expected to complete PAD 5001 within their first two semesters of enrollment.

Fifteen semester hours of electives.
Elective courses include a mixture of specialized courses, workshops, and other formats. Students may choose to use these elective hours to build an area of concentration designed to meet individual needs. Where appropriate, students may include specialized courses offered by other departments and schools of the University, with prior written approval of the faculty advisor or dean.

Advanced Seminar/Professional Practicum.
This course presents students with the opportunity to apply knowledge gained in course work to a question of interest drawn from their current or future careers in public or nonprofit organizations. The Advanced Seminar/Professional Practicum is taken in the final semester of the student's program. It allows the student to apply the knowledge and skills gained in his or her course work through in-class discussions and individual or group projects. All core courses must be completed before a student enrolls in the advanced seminar.

Field study in Public Administration.
Students who have limited experience (generally defined as less than one year of experience) in public or nonprofit organizations must complete an internship. Students register for PAD 6910 for three credit hours while completing the internship, which includes a minimum of 300 hours of supervised work and study. Note: This requirement raises the total semester hours needed to earn the MPA degree to 39.

Applicants to the program will be reviewed, and those who must complete internships will be notified. Students ordinarily begin an internship following completion of the core and related elective courses.

Additional internship opportunities.
Students who are not required to complete an internship as part of their degree program may nevertheless opt to participate in a field experience as an independent study and may earn credit for doing so. Those who wish to pursue this opportunity should contact the GSPA Internship Coordinator.

Rocky Mountain MPA (The Online MPA)

The Rocky Mountain MPA provides a unique opportunity for students with complicated and busy schedules, or those who live at a distance from the University, to obtain a Master of Public Administration (MPA) degree. Online courses are web-based versions of the same classes offered on campus, and they usually follow the regular semester schedule. Consult the Schedule of Courses each semester for more information.

Certificate Programs

Students who wish to sharpen their knowledge and skills without committing to the full MPA or MCJ degree programs may earn a certificate in one of three areas by completing four designated courses. Students who complete a certificate and later enter the MPA or MCJ program may count all credits toward the respective degree.

Certificate Eligibility Requirements

Any person with a bachelor's degree from an accredited institution may apply to the certificate program by submitting to the Graduate School of Public Affairs official college transcripts from each institution attended and one letter

of recommendation written by a supervisor or co-worker. Before enrolling for courses, students must submit an application for unclassified student status and pay the required $25 unclassified student application fee. Non-degree student application forms are available in the Office of Admissions. Students who have been admitted to the MPA or MCJ program may also earn a certificate by completing the course requirements listed above.

The Certificate in Public Management

This certificate, awarded to students interested in public sector management, focuses on the key areas of expertise required of public administrators.

Required Courses:
PAD 5001 Introduction to Public Administration and Public Service
PAD 5002 Organizational Management and Change
PAD 5220 Managing People in Public and Nonprofit Organizations
PAD 5502 Public Sector Financial Management OR
PAD 5004 Economics and Public Finance

The Certificate in Nonprofit Management

This certificate program provides present and potential nonprofit managers with the opportunity to improve their managerial skills as well as their knowledge of nonprofit administration.

Required Courses:
PAD 5001 Introduction to Public Administration and Public Service
PAD 5110 Seminar in Nonprofit Management
PAD 5140 Nonprofit Financial Management
PAD 5220 Managing People in Public and Nonprofit Organizations
PAD 5350 Program Evaluation

The Certificate in Criminal Justice

This certificate focuses on the development of managerial skills for law enforcement, corrections, and other professionals in the field of criminal justice.

Required Courses:
CJ 5100 Administration of Criminal Justice
CJ 5120 Nature and Causes of Crime

Plus 2 of the following courses:
CJ 5000 Law and Social Control
CJ 5320 Seminar in Police Administration
CJ 5520 Seminar in Corrections
CJ 5551 Judicial Administration

The Certificate in Homeland Defense

This certificate is designed for students with an interest in and desire to prepare for jobs related to homeland security and homeland defense.

Required Courses:
PAD 5950 Introduction to Homeland Defense
PAD 5951 Interagency Relationships in Homeland Security and Homeland Defense
PSC 598 Understanding the Threat
INFS 692 Protection of Critical Infrastructures

Doctor of Philosophy (PhD) in Public Affairs

The Graduate School of Public Affairs offers a program of advanced graduate study leading to the Doctor of Philosophy (PhD) in Public Affairs. The program, based on the Denver campus, permits work to be taken on any campus of the University if it is part of the approved program of study or degree plan. Application deadline is February 1.

For further information or application materials, write or call:

Graduate School of Public Affairs,
University of Colorado at Denver
and Health Sciences Center
1380 Lawrence Street, Suite 500
Denver, Colorado 80204
(303) 556-5970.

COLLEGE OF BUSINESS AND ADMINISTRATION COURSES

ACCOUNTING

ACCT 201-3. Introduction to Financial Accounting.
F c e e eec a e aa fba c a ca f a f e c a aca ae e f eb e e e e a a e a ab a a be a e e e a f e c e l c e e f ea ee

ACCT 202-3. Introduction to Managerial Accounting.
P e a a f e a e e fca ba c a ca a e e a a e a a f c e ce a e c a e e facc e a a c fb e e e e E a a a e e ec a e facc f a l c e e e f ea ee P e ACCT

ACCT 301-3. Intermediate Accounting I. A c e e e a a f e ac ce f a ca acc a e b b c c a e c e a e e l c e a a f a a e acc e a e e a acce e acc c e E a e e f a ca a e e a f c a e e a a l c e e e f ea ee P e C e e ac ACCT ACCT ACCT e a COB U e a a e D ec e

ACCT 302-3. Intermediate Accounting II. A c a f ACCT f c ab e e a eca a ea c ca a e e ea e e c e a e ea e a e a c a ce l c e e e f ea ee P e ACCT J e a COB U e a a e D ec e

ACCT 311-3. Cost Accounting. C a a f e f c a ec a A a f c be a e facc a a c a a a e a e f c acc a a T c f c e e e be c e c ac ba e c l c e e e f ea ee P e J Sa ACCT ACCT ACCT

ACCT 401-3. Advanced Financial Accounting. A a ce a ca acc e a e a a e e a ac ce facc f b e c b a c a e a ca a e e e a e a a e P e ACCT a ACCT C e fa c e J e a COB U e a a e D ec e

ACCT 402-3. Financial Accounting Theory. I e a a f c e a acc e a be e e e e facc a c e a c ca e e f e e a acce e acc c e P e ACCT Ma be a e c c e ACCT C e f a c e J e a COB U e a a e D ec e

ACCT 411-3. Managerial Accounting Issues. C ca a a fa a ce c a a e a acc U e ca e a ea f ec e a a e a acc e a e f c e fc ce a a e P e ACCT C e fa c e J e a COB U e a a e D ec e

ACCT 421-3. Individual Income Tax. A a fba c c ce ffe e a c e a e c a c e e c e c a e e a e a ac C ce be a e ac a a b e e fac e e e a e a c a e F c a c e a a a P e ACCT a ACCT C e fa c e J e a COB U e a a e D ec e Mee ACCT

ACCT 422-3. Corporate and Partnership Taxation.
P a e a Ca Sc a a a e Ba c a a f a a c a ce f f fc a e a a e a e e a B e a a e a a a a e a c e e P e ACCT C e fa c e J e a COB U e a a e D ec e Mee ACCT

ACCT 431-3. Introduction to Accounting Systems.
A c e e e e a acc f a e e fa a a ce a f a e E e e e e ec a e acc a a c a a a e e e l c e a ec e e e e e e a f a e c e b acc a a a c a a a S e a c e e e a ec a e a acc f a e ac a e P e FNCE a ACCT ACCT ACCT C e fa c e J e a COB U e a a e D ec e Mee FNCE a ACCT

ACCT 441-3. Fund Accounting for Government and Nonprofit Organizations. T e a c acc ac ce e e a a a F acc a b e a c ec e bec e e e a E a be ace a a e e e f f a Nece a f PA e a e a a P e ACCT ACCT ACCT C e fa c e J e a COB U e a a e D ec e Mee ACCT

ACCT 451-3. Accounting Ethics and Institutions. A e f e ec ca a be a a e ca a a e f fe a acc a a e a f e ca a e a a affec e ac ce f fe a acc c e SEC IRS FASB AICPA a a e a e P e a e f e a cce f e ca e e ca e e P e N e e e e e acc J e a COB U e a a e D ec e

ACCT 461-3. Auditing. A f e e a acce e a a a e ca e b e a e a ab e f e e e e a a a ec e e b e e e e b c acc a P e ACCT a be a e c c e ACCT c e f c J e a COB U e a a e D ec e Mee ACCT

ACCT 495-1 to 3. Topics in Accounting. E e e a c e acc P e J e a COB U e a a e D ec e

ACCT 496-1 to 3. Internship in Accounting. U e a a e acc e f b e e P e J e b e e

ACCT 600-3. Contemporary Issues in Accounting.
F c e e e facc f a f e ec e ec a Acc f a ca e a a e c ca a a ab e a a a e fc e a c e W e abe e ec e a a e be e e acc e a effec e a be e e f ea ee e e

ACCT 601-3. Seminar: Financial Accounting Theory.
Ac ce a e a a a e a a fa e a e c ce a e f e ab a b b c c a a ca a e e l e c e e ec ca ca fc e acce abe a acce abe e e a ac ce f a ca acc e e a a f ec c c P e ACCT a ACCT e a e

ACCT 609-3. Contemporary Issues in Accounting.
F c e e e facc f a f e ec e ec a Acc f a ca e a a e c ca a a ab e a a a e fc e a c e W e abe e ec e a a e be e e f ea ee e e D a ce MBA c e T ffe f ca c e

ACCT 611-3. Seminar: Managerial Accounting Issues.
A e e a f eb a fe a e f a a e a acc e eca a e a e a a a ec a a a c De e e a c e be f e a a e a acc f c a e a a e P e ACCT e a e

ACCT 621-3. Seminar: Advanced Topics in Income Taxation. P e a e e e e e c e a f a a a c a ce Re a e c a a e e a a c c a e a c e a ce c e a e e a e P e ACCT

ACCT 661-3. Seminar: Issues in Auditing. De e e fa a a fe c e e f a a a a a e C e e ea e ca a e a e b e f e a a e e e H ca a c e a e a e e e e e e P e ACCT e a e ACCT e a b e

ACCT 671-3. Individual Income Tax. A a f b a c c ce ffe e a c e a e C ce be a e a c a a b e e fac e e e a e a c a e F c a a c e a e a a P e ACCT ACCT COB a a e e Mee ACCT

ACCT 672-3. Corporate and Partnership Taxation.
P a e a Ca Sc a a a e Ba c a a f a a c a ce f c a a a e a a e a B e a a e a a a a a c e e P e ACCT e a e COB a a e e Mee ACCT

ACCT 673-3. Introduction to Accounting Systems.
A c e e e e a acc f a e E e e e e ec a e acc a a c a a a e e e l c e e e a f a e c e b acc a a a c a a a P e ACCT e a e COB a a e e Mee ACCT

ACCT 674-3. Fund Accounting for Government and Nonprofit Organizations. I c acc ac ce e e a a a a F acc a b e a c ec e bec e e e a a e a a a e e e f f a P e ACCT ACCT COB a a e e Mee ACCT

ACCT 676-3. Auditing. A f e e a acce e a a a e c a e b e a e a ab e f e e e e a a a ec e e b e e e b c acc a P e ACCT ACCT ACCT COB a a e e Mee ACCT

ACCT 695-1 to 3. Topics in Accounting – Graduate.
E e e a c e acc ffe e a e a a e e e f e e f e e e bec a e O e MBA e e e

ACCT 696-1 to 3. Internship in Accounting. G a a e e acc P e I c a Dea a a

ACCT 940-1 to 3. Independent Study in Accounting - Undergraduate. W e c e f e c ec e a e ea

ACCT 950-1 to 3. Independent Study in Accounting - Graduate. W e c e f b e c ec e a e ea

BUSINESS ADMINISTRATION

BUAD 100-3. Introduction to Business. Fa a e e e c e ea aae e a c ec ca ec fb e a b e e e C eb ec e e e f e e e e ec ea b a e a a c e e e ab af a f e a f a e c e e ea a ce b e c e

BUAD 295-1 to 3. Topics in Business. E e e a c e ffe e e a a e S e e e f e e f e e e b ec a e a a c a b e e C e e e a e e c c e e Pe S e a

BUAD 300-3. Integrated Skills for Management. Re e f e c eb e c e S e f c aea e ec ca f aae e e e a a e e a ea c e a ac ce f ea a ab e ea ec aae e c e c e ec f c e a a e c S e a ae c e a a ec e e e e Pe ENG C e e ac Sec Se e e e

BUAD 301-1. Career Strengths: Assessment and Development. G e e a e e a f e ee a a e a e e ac a c a b a fe T e ea c a aa e e a a ce a e a a e ae ffe a e e Pa fa Pe J e a COBU e a a e D ec e

BUAD 302-1. Career Skills: Resume Writing and Interviewing. I c a e e a e e e ce a e c e e e a e e b ac ce effec e e e ec e a c e e effec e b Pa fa Pe J a

BUAD 303-1. Career Success: Image and Impact. He e c e e e ac a e a fe a a e f b e e ee e ca e c e e c e a fe a e C e c e a e e c c a e e a effec e e a a ae c ca a a e f ea a a Pa fa Pe J a

BUAD 390-3. Improving Personal and Team Creativity. C e e c ce a e e fc ea b e e e f ec e e ec c e a ac e c a face e e ae c ea E a e fc ea e a ac e b e a a e ae B a a c ea ec e a e e e e a ac ce e a f ac ea e ea Pe J a

BUAD 395-1 to 3. Topics in Business - Undergraduate. E e e a c e ffe e e a a e e a e e e f e e e e bec a e a a c a b e e Pe J e a COBU e a a e D ec e

BUAD 400-3. Business, Government, Law, and Society. A e a a f e e a be ee b e c e a e e a e e a ca ce f a ac e b e ec a ce e Pe C e fa c e M TG OPTM FNCE ORMG ENG COMM ENG B e e

BUAD 450-3. Cases and Concepts in Business Policy. Ta e a e e a a a e e ec e e a a f e c a T c c e e e a e b f e e a a a e e a a f e a a e ec e e e e a e e f b a a c e e a a a e a e a e e a a a e e a a a e c a a e e e a a e e T c c e e c e e ca e a a P e C e fa c e M TG OPTM FNCE ORMG COMM ENG ENG B e e

BUAD 470-3. Emerging Businesses and Entrepreneurship. H a a e a e a e e e e b e Ca e f ca a b e e Pe Se a

BUAD 495-1 to 3. Topics in Business - Undergraduate. E e e a c e ffe e e a a e e a a e e e f e f e e e b ec a e a a a c a b e e e Sec e e e e a e e C e e e e a e e c c e e e

BUAD 496-1 to 3. Internship in General Business. U e a a e e f b e e Pe J e b e e

BUAD 550-3. Fundamentals of Economics. S e ea a ec c c b e be a a a c e c C e e a e e ffee a e e e ec c e be C e c e e f a e a f c a a c ec c

BUAD 559-3. Macroeconomics for Managers. De e e fec c a e e f e e ca a ec c e E a fec c a a e f c f e ac ec e e ece f e e a a ec e a c ec a e e f ec f a e ec S e ea a a e e a e e e e a a e e e e a c ec c a abe a a e e effec f b e ca e a a e e e e c ec e a e e e a e Fe e e ec a e a ec ca c a e a be e f a fa e ec D a ce MBA c e T c e e ffe f ca c e

BUAD 560-3. Business, Government, and Society. T e e e e e ce f b e cea e e a a ec ce e E e e e a baa ce f e b e be ee b e a e e a e f e fee a e e c e b c c e a e e a e affec b e Pe BUAD

BUAD 569-3. Business, Government, and Society. T c e e a e e e e e e ce f b e cea e e a a ec ce e Te e a baa ce f e b e be ee b e a e e e a e f e fee a e e c e b c c e a e e a e affec b e a e e D a ce MBA c e T c e e ffe f ca c e Pe BUAD

BUAD 649-3. Transforming Technology Organizations and Employees. A e e ee a e fac ec a a a a e ec ca e e e e ec ba e a a f e f e a e e effec e c a e Te e f c e aca e c e ac ca e a e f a ba a a c ce e be ac ce f ec a a a a f ce D a ce MBA c e T c e e ffe f ca c e

BUAD 650-3. Strategic Management. Ta a ba e e c e c e f c e e e f e e e a a e a f e b e a e e a e e c e e e f a a e f a c e c e e a a e a e a a a a ac e c e f effec e e e e a e U e a c b a f e c e c a ca e a a e a e e e e e Pe A e a a c e e e a e a a MBA c e c e e Rec e e f a e e e e a

BUAD 659-3. Strategic Management. Ta a ba e e c e c e f c e e e f e e e e a a a e a c a a f e b e a e e a a e a c e e e f a a a e f a c e c e e a a a e a a a a ac e c e f effec e e e e a e U e a c b a f e c e c a ca e a a e a e a e e e e Rec e e f a e e e e a e a D a ce MBA c e T c e e ffe f ca c e Pe A e a a c e e a e a a MBA c e c e e

BUAD 661-3. Managing Technology for Strategic Advantage. T c e e a a e e e e e c e a a ec a a c e a a a a T e c e e e e e e a e e f e e ec e a e a e e a c ffe a a a a ec a e e e ec ba e a e a e e ab e e e e a e c ba e a e T e e f e e e a e e c a f c e a c a D a ce MBA c e T c e e ffe f ca c e

BUAD 669-3. Managing Technology for Strategic Advantage. P e a a e e e e e c e a a a ec a a c e a a a T e c e e e e e e a e e f e ec e a e a e a e a c ffe a a a a ec a e e e ec ba e a e a a b e e e e a e c ba e a e T e e f e e e a e e c a f c e a c a D a ce MBA c e T c e e ffe f ca c e

BUAD 670-3. World Class Service Management. Effec e e c e a a e e e e a c a a ac a e a a e e a e c e a a e e a f a a c e a a e e P e a f a e e a e a a e e a e c e a a e e C e f e a c a e a c e a c c e a e e f a c e e c e a e c c e e e a e f e a e a a e e c e e a e e a c a a ca T e f c e e a e e e e e f e c e a

BUAD 671-3. Transforming Technology Organizations and Employees. A e e e e a e fac ec a a a a e ec ca e e e e ec ba e a a f e f e a e e effec e c a e Te e f c e aca e c e ac ca e a e f a ba a a c e e be ac ce f ec a a a f c e

BUAD 679-3. World Class Service Management. Effec e e c e a a e e e e a c a a ac a e a a e e a e c e a a e e a f a a c e a a e e P e a f a e e a e a a e e a e c e a a e e C e f e a c a e a c e a c c e a e e f a c e e c e a e c c e e e a e f e a e a a e e c e e a e e a c a a ca T e f c e e a e e e e e f e c e a D a ce MBA c e T c e e ffe f ca c e

BUAD 680-3. New Venture Management. I e e e f e a e f e e e c a c a e e a e e f e a b e c e a a e f e a a e e a a a a e f e c e C e b e a e e e c e a e a a a c a e a e a a f a a c e a e a e e S e e a e e a b e a f a e e e

BUAD 690-3. Managing in Global Markets. De e e a e e a c a e b a f c e a a c e e a a e e B e e e e c c e c a c a a e c a e a c e f b a

a a e e A e e a c ce e a e e a a ce f e a f a e eae ba a e

BUAD 695-1 to 3. Topics in Business - Graduate. E e e a c e ffe e a e a a e e e f e e f e e e bec a e a a c a b e e

BUAD 696-1 to 3. Internship in General Business. G a a e e b e O e MBA e e e P e l c a Dea a a

BUAD 699-3. Regional Business Environment Europe. S ab a A e e f e a a b e e a c ce ab a b a a e e e e f E ea c a e l e ec a c a a cae e f eac c e T a e e e a a b e a a e e e e ce D a ce MBA c e T c e e ffe f ca c e Pe l c a a

BUAD 940-1 to 4. Independent Study in Business Administration – Undergraduate. l e e e a e e a a e e e e c e f e c e e ec e e a e a e e a Pe C e f c a ea

BUSINESS COMMUNICATION

BCOM 550-3. Professional Business Communication. Ac b a f ec e a e e e a e e effec e e a e e a T e e e e a f eba f cce f c ca c e a a a e ce a f a ea e a e effec e f a c e a ac e c e effec e a a a f a S e a e e e ce fe a e e a c a effec e e e a l e f c e a c a a a a e e e e a ee e

BCOM 559-3. Professional Business Communication. P ac c a a e e ca c e f effec e fe a b e c ca P e f a a effec e a a e b e c ca c e e e fb e a a e e e a F e a e cc ca e e a a a e a c e e a ca e a a e c a e a e a c fc ca e a a a c e a e e e a a a ec e a b e e c D a ce MBA c e T c e e ffe f ca c e

BUSINESS LAW

BLAW 200-3. Business Law. T e e a ca ce f b e a ac a e a e a f e ec a ce b e C e a e f e a a e c e a a e f c e e a e a f e U f C e ca C e e a f c ac ba e a e e e a ca e c e f e a e f a c e ca a e Rec e e f acc a be f e CPA e a Pe S e a

ENTREPRENUERSHIP

ENTP 295-1 to 3. Topics in Entrepreneurship. E e e a c e ffe e f e e f e e e bec a e e e e e C e e e e a e e c c e e Pe S e a

ENTP 395-1 to 3. Topics in Entrepreneurship. E e e a c e ffe e f e e f e e e bec a e e e e e C e e e e a e e c c e e Pe J Se a

FINANCE

FNCE 220-3. Personal Financial Planning. T e f e e e e a e e a fa e a a ca a e e a l c e a a f b e a a a a a c a e c a e ec a e a c e a a e f a a e a e e c a e e a a e e a e e e e e e f a e e a e e e a e a Ca be e f FNCE BUAD a e e c e

FNCE 305-3. Basic Finance. A c e a ca a a e e f e a e f c f a ce T c c e e f e a ca a a e e a e f e ec e f a ca a a a a c ca a b e ec e a a a a e e f a e ce f a c a a e e f ca a a ca a c e e E a ace e e e a a a a e f a ca f a a e a ca ec Pe ECON ECON ACCT a QUAN P c e c e ACCT a QUAN J e a COB U e a a e D ec e

FNCE 340-3. Risk and Insurance Principles. R a a e e a a e e e f a a c a e a ca a P bab e f e e ce a a ce ca e a c ac e a e a a ec e e T e f a ce c fe ea e e a e e ab a a e ee be e a e c e Pe c e J a

FNCE 400-3. Advanced Corporate Finance. T e c e e e f c a a e e e ec a e ca a a ce e e e a a a e e a ca affa c e a e a e a e T c c e e c e ca a b e a e c fca a e c ca a c e a a ca e E a e e a a ca a be Pe FNCE QUAN Sec e e e C e fa c e COB D ec e

FNCE 410-3. Cases and Concepts in Finance. T e e e e fa a ca a ec a f e e a be a c f a ca a a e A e a c e a c a a c f b c e e a a e e ca a c e a a e e f c e e a a f c e c e a e a a c ac Ca e e f c Pe FNCE J e a COB U e a a e D ec e

FNCE 420-3. Investment and Portfolio Management. T e f e e e a e T c c e e e e e e f e a e a a a fc a efe e c b a f e Tec e c e e e e be a ce a e e f e e e S e a ece e c e f b FNCE a FNCE Pe FNCE C e fa c e J e a COB U e a a e D ec e

FNCE 430-3. Bank Management. A e a a f e a c a be f a a a a c a e e a T e a a ca f a e e e f e a e e e eac a a a e e f f a ce a ce e ca a a e ac a e c a e e e e Pe FNCE a e e f E ce Sec e e e e a

FNCE 440-3. International Financial Management. E a e e e a f b e a ba ec l e a a c a a e e baa ce f a e be f e a e a a f e e c a e a e a ba e e a a c a e e a e e e Pe FNCE C e fa c e J e a COB U e a a e D ec e

FNCE 450-3. Money and Banking. T e f e e ac be ee a ca a e a e Fe e a Re e e e T ec ee a e e Fe e a Re e e Ba c c e a c e a abe ba e a ec c e a a e e T c c e e c e e e ae a a e e a e effec f e e a abe e b e c ce Pe FNCE C e fa c e J e a COB U e a a e D ec e

FNCE 460-3. Financial Modeling. A c a a ce a ca e ec e ea ee T e f e a ca a a a E ce T a ec ca e e e e e e ca ab e S e ea b effec e a c e a a e ca ab e a a ca a b e a f a ca S e a be ce e a a ca a aba e e a ca a a P e ACCT a FNCE J e a COB U e a a e D ec e

FNCE 470-1 to 3. Practicum and Research in Security Markets. T e PRISM ca a a ea ab f e e e e a e e ec T a a a e D A Da e ca a a e a f acc ea f FNCE a ce c e a e e ac e e b e fa a e e e T e e c e e e ca cce f be e bef a a e e e D A Da A ec e b a ca A ca a e a a abe e C e e f B e P e FNCE e a e Pe f c e e J e a COB U e a a e D ec e Mee FNCE

FNCE 480-3. Entrepreneurial Finance. T a a ca e e e e S e ea a e ec e f a ce a a ab e S e a ac ca a ca e e a be ef a ab e a a ac ca e e e e a a c be e a a e a a C e f c ea ca f a ca e ea e P e FNCE c e J e a COB U e a a e D ec e

FNCE 495-1 to 3. Topics in Finance – Undergraduate. E e e a c e ffe e e a a e e a a e e e f e e f e e e bec a e a ce Sec e e e J Se a e e C e e e e a e e c c e e P e J e a

FNCE 496-1 to 3. Internship in Finance. U e a a e e a ce P e J e b e e

FNCE 600-3. Corporate Financial Management. C ce e e a a ca fac a a ca e ce a a e e f a ca e a c ce Ca a a e e a e f e a a fec e a e ca a b e c e a ec e a ca a e e a a a ca a a ca a a c fca a E a e ec e ece a c e a ea a e e a e f e P e ACCT BUAD a QUAN

FNCE 609-3. Corporate Financial Management. C ce e e a a ca fac a a ca e ce a a e e f a ca e a c ce Ca a a e e a e f e a a fec e a e ca a b e c e a ec e a ca a e e a a a ca a a ca a a c fca a E a e ec e ece a

FNCE 610-3. Problems and Policies in Financial Management. A

FNCE 620-3. Investment Management and Analysis.

FNCE 629-3. Investment Management and Analysis.

FNCE 640-3. International Financial Management.

FNCE 649-3. International Financial Management.

FNCE 650-3. Managerial Economics and the Business Cycle. S

FNCE 659-3. Managerial Economics and the Business Cycle. S

FNCE 670-1 to 3. Practicum and Research in Security Markets. T

FNCE 695-1 to 3. Topics in Finance – Graduate.

FNCE 696-1 to 3. Internship in Finance. G

FNCE 940-1 to 3. Independent Study in Finance – Undergraduate. I

FNCE 950-1 to 3. Independent Study in Finance – Graduate. I

HEALTH CARE ADMINISTRATION

HCAD 619-3. Health Care Administration. E

HCAD 629-3. Health Care Policy. F

HCAD 639-3. Health Care Ethics and Law. A

HCAD 649-3. Health Care Budget and Finance.

HCAD 659-3. Clinical Research Application. De

HUMAN RESOURCE MANAGEMENT

HRMG 434-3. Labor Relations and Negotiation.

HRMG 438-3. Human Resource Management. P

HRMG 439-3. Legal and Social Issues in Human Resources Management. C

HRMG 441-3. Motivating, Rewarding, and Developing Employees. E

HRMG 485-3. Directed Research Projects in Human Resources and Management. A

HRMG 496-1 to 3. Internship in Human Resources.

INFORMATION SYSTEMS

INFS 110-3. Information-Based Decision Making.

INFS 251-3. Managing Network Interconnections. T

INFS 295-1 to 3. Topics in Information Systems.

INFS 300-3. Introduction to Management Information Systems. S

ac ca a ca f f a e P e ACCT a QUAN

INFS 305-3. Introduction to Information Technology. e ec c ce f f a e a a e ce a a a e T c c ec e a a e c e e e a c ec e e a e a e a a a e a a aba e T ec e e eee e a c ce e e b e e INFS ca e P e Ma be a e a a ec e e e e c e

INFS 308-3. Business Programming. P e c e e e e a f be a c T ee a c e a bec e e a e e ce a ab ac a e I ce e a e a a c e P ce c e e e a e e c e c e a eb a Ma a e a a ec e e e e P e INFS INFS

INFS 310-3. Business Programming II. B e a e a e e e f e e ec e f a a ec e Ob ec e e a e a f c E a a a ce c ce c a a aba e e face GUI a eb e e e A e a e a ec e e P e INFS 8 c e

INFS 340-3. Database Concepts and Application. S e a ae ce e f a e a c ce f a aba e e a e e a c e e e ea a bec e e a c a a S c e Q e a a e T ca e ea c e ea e a c e e a c e ab P e INFS INFS c e

INFS 370-3. Computer Networks and Telecommunications. I ce e e a a e a e a ec f c e e a e ec ca S e ffe e a e be ee e ffe e e ea e a ea b e a ca f e I c e e ba c f a a a a AN c P e INFS INFS c e

INFS 380-3. Web Development. T c c e HTM c ea eb a e c ea a e JAVA e e e e e e e a ca a e eb e e a aba e e face N c e f I f a S e a

INFS 395-1 to 3. Topics in Information Systems - Juniors. E e e a c e ffe e e a a e e a a e e e f e e f e e e b ec a e f a e J a e e C e e e e e a e e c c e e

INFS 410-3. Systems Analysis and Design. P e a c e a a a e c ce e e ec e a e ec e e e a f e a a cce f e e f a e S e be e e b c e a bec e e e e f a a e a e e a P e INFS INFS P e C e INFS c e

INFS 440-3. Emerging Technologies. Eac ea a e ec e e e e e e e a e a b e a a a e a e e be e a e c a e e a e ece e e e a e a e e f e ace e W f c e a c a a a e e ec e a e a e ace a a a e A e a e ec e e P e INFS

INFS 450-3. Information Systems Project Management. A ca e c e f IS a C e a a ec f a ac a c ec e e e e f ea ca ca a IS ec a c ce c e e ea e c e S e a e e ec e a ec e c e a ec C ca cce be e

e a f e ab e e e e ac a e ec e c a c e e f a e e e e a be ab e c a a b P e INFS a INFS C e f a c e COB D ec e

INFS 485-3. Directed Research Project. D ffe e a e f e eac e a e e f a e S e c c a a e f a a e ca ea e ea c ec F c e c e a c f e e ce c ab a ea e f a ca c ea a a e e a a a X Y e e f a ca e a e e f a e e e P e INFS INFS a QUAN J e a

INFS 495-1 to 3. Topics in Information Systems - Seniors. E e e a c e ffe e e a a e e a a e e e f e e f e e e b ec a e f a e Sec e e e J Se a e e C e e e e a e e c c e e P e INFS 8 c e

INFS 496-1 to 3. Internship in Information Systems. U e a a e e f a e P e J e b e e

INFS 600-3. Information Systems. I c c e S e ea a f a e a e e a a e e e e S e a ea ab a a a f a ec a a e a e f f a T c e c e c c a e a a e a f a e e ec ca a a aba e A c e e be e e a f f a e a a a a e e a a e ec ea f f a e

INFS 609-3. Information Systems. I c c e S e ea a f a e a e e a a e e e e S e a ea ab a a a f a ec a a e a e f f a T c e c e c c a e a a e a f a e e ec ca a a aba e A c e e be e e a f f a e a a a a e e a a e ec ea f e D a ce MBA c e T c e e ffe f ca c e

INFS 639-3. Principles of Programming. I ce e e ec ce f c e a MS E ce e e a V a Ba c f A ca VBA E c e a fa a e e a a a e b a a a e VBA e U VBA a e ca e ea e a a a e ba c c ce f a a a e T e e c ce c e b a e e bec e GUI e a abe c a a e e ca e a e e c e c a e I O a a b e f c ec W e ec ec ce a e a c ce e e a bec e c e c e E ce a e MS Of ce c D a ce MBA c e T c e e ffe f ca c e P e Ba c c e e ac INFS

INFS 649-3. Development of Information Systems. P a a a e a e e a a e f f a e e e e ec P e a e e fa a e f f a e e e e c ce e e ec e a ec e a f c be e e ea ac e E a e e ee e a a a ea e f a e D a ce MBA c e T ffe f ca c e P e INFS INFS INFS e a e

INFS 659-3. E-Business Practices. F c e e bea fa ec a e c e ce e f ce f b e a e Ba c b e fa c e e a e e a e ea a a e a e a a fa c e e e bea a e e e a e a e ace D a ce MBA c e T

c e e ffe f ca c e P e INFS INFS

INFS 669-3. Database Principles. De a a e e a e e a f a a e e e a a a a e e c a e a e a e a c a e b e a e a a a e c e e T e c e f c e e e f a a e a ea a e e a f e e T c c e e a a aba e a e ea a b ec e e a a e a a a a a a a a SQ c e e e ce a b e a aba e T ca e c e e D a ce MBA c e T c e e ffe f ca c e P e INFS INFS INFS e a e

INFS 683-3. Working in Virtual Organizations. E e e c a e e f a ea a a a a S e be ce e ec e a e ab e e ee a a a e a e e e ce e f e ec e T e a e f a c e ea b e a a a e e e a c a e a a ea a a a a a be e e

INFS 689-3. Telecommunications and Networking Principles. T c e e a bac e e c ca ec e a a ea f a e a c ec e e c a a a S e e ec ca e ce e a e e a a ea f a e e c a e a ca c f a a c be e a a b e e ce a e e e f a ce a a ac ec e ab a a f e a a a e e f e ec ca T e a a e f ca f c a a e c e a e a e c a ea D a ce MBA c e T c e e ffe f ca c e P e INFS INFS

INFS 690-3. Special Topics in Information Technology. F IS a a f e a a a e IT ac e a f c a a ea c a a e a ce T c c e e c a a e f f a ec a a f a a e c a e f f a e b e ce e e e effec e e ac f IS a c e a a f a ec a a a e e e e a c e ea a a e e c ec a e ec e f a e ec a a e e ec e e ec ace e a a e f a ce e a a a e e a e e f c P e INFS

INFS 696-1 to 3. Internship in Information Systems. G a a e e f a e P e I c a Dea a a

INFS 940-1 to 3. Independent Study in Information Systems – Undergraduate. I e e e I f a S e a e e a a e e e e ec e f b e c ec e a e ea P e J e a a c e f c a ea

INFS 950-1 to 3. Independent Study in Information Systems - Graduate. I e e e I f a S e a e a a e e e e ec e f b e c ec e a e ea

INTERNATIONAL BUSINESS

INTB 360-3. International Business. A c e a a b e E a e ec c ca a c a e a e a b a e e f e e affec b e a a e e A e e a a e a e e a e a e f c a a ea f b e P e a e e f a a ec f a a a c e a a b e e e P e ORMG a M TG J a

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INTERNATIONAL BUSINESS

INTB 461-3. Regional Business Environment Europe. A e e f e a a b e e a c c e ab a b a a e e e e f E e a c a e l e e c a c a a c a e e f e a c c e T a e e e a a b e a a e e e e c e Pe l c a a

INTB 480-3. International Management. P e a e e f a a e e e e a e e a a a e Ma c c e e a e a e a ec a a c a a e a e a e ac c e e a a a b e a a e e c e e e c a e a a a a e e e a c c e e a a a b e a S e a ea a a a e c a e T e c e c c e a c f e e c e a a a a e Pe ORMG C e fa c e J e a COB U e a a e D e c e

INTB 496-1 to 3. Internship in International Business. U e a a e e e a a b e Pe J e b e e

INTB 619-3. Managing in Global Markets. De e e a e e a c a e ba f c e a a c e e a a e e B e e e e c c a c a a e c a e a c e f ba a a e e A e e a c c e e a e e a a a c e f e a f a e e a a b a e D a c e MBA c e T c e e ffe f c a c e

INTB 660-3. Contemporary Topics in International Business. T e a e a e a c e a e e a a b e l a e a b a e a a c a a a e e e US E e a a A a e e a c e e a a a e a c e Pe C e fa MBA e a a c e

INTB 670-3. International Field Project. Ma b e a e e e e e a c e c a e a e a e a e Offe e a a c b a a c c a a a e c c f c S e e c a a e a Pe BUAD c e

INTB 696-1 to 3. Internship in International Business. Ga a e e e a a b e Pe I c a Dea a a

INTB 940-1 to 4. Independent Study in International Business. W e c e f b e c e c e a e e a Pe e f c

INTB 950-1 to 3. Independent Study in International Business. W e c e f b e c e c e a e e a

MANAGEMENT

MGMT 600-3. Leading and Managing in Changing Times. T c e e e e e e c c e e e a a f e a a a c a b a T e c e b e a f c c a e e a e e e f e a a a a a e c e e c e T e e a e f e c e f c e e e e a e a a a e e a a e a e a f a a a a a a b e a S e a e a a a e c a e T e c e c c e a c f e e c e a a a a e

MGMT 609-3. Leading and Managing in Changing Times. T c e e e e e e c c e e e a a f e a a a c a b a T e c e b e a f c c a e e a e e e f e a a a a a e c e e c e T e e a e f e c e f c e e e e a e a a a e e a a e a e a f a a a a a a b e a S e a e a e e e f a c e e a e a e a a a e c a e T e c e c c e a c f e e c e a a a a e e D a c e MBA c e T c e e ffe f c a c e

MGMT 610-3. Development of Groups and Organizations. A c f e a c e a a a a fac a c a e a a a b a ca f b e a a c e c e e e E a a c e b c e a e e e a e a

MGMT 620-3. Managing Organization Development and Change. I a e e f a c c a e a e e c e a e a a a e e b e a a c a e a e e e a e f a c e a a a e a c a c e e a a a e T e b e a f e e a e a e e e a T e a e c a c a T a a e c e a e e a a c c a a e e e f e a a a a a a c e Pe ORMG C e fa c e J e a COB U e a a e D e c e

MGMT 629-3. Managing Organizational Change. T c e e e e a e a f e c a e e a a c e a c a e a a a a c a e c c a a c a e e a f e f a a a e D f c e b a c e a e a c e b e a e e e a e e e c c e f a f b a b c a e c e a a b e e e D a c e MBA c e T c e e ffe f c a c e

MGMT 630-3. Managing Human Resources for Competitive Advantage. P e e a e e f c e a a e c e a a e e T c c e b a a a f e f a c e a a a e e e a c e a c a e e a e a e e a f a f a e a c a e c A c a f a e c e a a e e c e e a e a e c a c a e a e a e e e f a c e a a a a e a e c D a c e MBA c e T c e e ffe f c a c e

MGMT 639-3. Managing Human Resources for Competitive Advantage. T c e b e e e a e a c a e e e e c e e e c a a a f a e a c c e a b e e e f a c e a a a a e a e c D a c e MBA c e T c e e ffe f c a c e

MGMT 640-3. Legal Issues in Managing Human Resources. E a e e f f e a c a a e c a e c f a e c e a a e e c e a a e f a a E a e a e e a f a e a c a a f e a e a a e e a e e a b e e e e a c f e a a e a e A c a f c e e a e c a c a e a e e c e T e e a b e c e f e c e e a a a c a a a e e e e a a e c a e e a a a a b e a S e a e a a a e c a e T e c e c c e a c f e e c e a a a a e e D a c e MBA c e T c e e ffe f c a c e

MGMT 650-3. Labor Relations and Negotiation. E a e e a c e a b e e a b a e e T c c e e f a b e a e U e S a e a b a a c a c a c e c e b a a c c e A a f c f c e e e e e f e e a a e c e e c a e c e a f c c e e f b e e a a e c a a c c e a e e a e e M e e HRMG

MGMT 660-3. Compensation. E a e a c c e b c a a a e e e c a a e e a b e e a a c c e e a c e a E a a c e e e a a c e a a b e e O e c c e a a e e e e f a c e a a e e e a e c a e c e a a e e e HRM a e a a HRM M e e HRMG

MGMT 696-1 to 3. Internship in Management. G a a e e f b e e Pe A e MBA e l c a Dea a a

MGMT 950-1 to 3. Independent Study in Management. Ma a e e Ga a e W e c e f b e c e c e a e e a

MARKETING

MKTG 300-3. Principles of Marketing. A a c a e f e e e e e e a e c a e f a e c e Ta e a a e a a e e a c a a c a a c b e e a e c a c a e f b c a E a e e e f a e e c a e e a c Pe ENG J a

MKTG 330-3. Marketing Research. C e e a e a e e e a c a a e c a e c a a e c e a a a Pa c c a e e e c e e a a a e f e a c e a a a e a e a e e e a e e a f e a e e a a Pe C e a c e e QUAN a M TG J e a COB U e a a e D e c e

MKTG 431-3. Introduction to Marketing Information Systems. T a e c e e e e c e f a e a a f a a b c e Ge e a e f e f a e f a e P e a c c a a c e c c e f a e f a e f a f a a Pe M TG J a

MKTG 440-3. Service Management and Marketing. T e e c e c e f b e e e a c e a a c a e a e b e e e a e e c I a a e c e c a b e e e e e a a a a a e c e f e T e c e b a e a e c a e c e b a a a a a c a f a e e a e e c e e D e e f e e a e e e e e e a e a e c e e e c e a e a f a f a c e e Pe M TG J a C e f a c e COB U e a a e D e c e

MKTG 450-3. Retail Merchandising, Management and Promotion. P e a e PGM e a a a e a c c e f e a e a e f T c c e e a a e e b c a e a a c a e e Pe M TG a PGMT c a a J a C e f a c e COB e a a e D e c e

MKTG 451-3. Sports Marketing. P e a e PGM e a e f a e a c e T c c e e a c c a a e a a e c f e c a e e a a c a e f e e I e e e e c a c c c e f a e e a e e a e e Pe M TG a PGMT c a a J a Pe c e BUAD

MKTG 455-3. Contemporary Issues in Marketing. C e e a c e e e e e f a a e e e T e c a b e e e e e C e e a e a f a a e c a e a f c Pe M TG J a C e f a c e COB D e c e

MKTG 460-3. Business Marketing Management. A e a e e c f c e c a a e e a a e e a a a a a e a a a b e b e a Ma ffe e c e b e e b e b e a e a c e a e a e e a e a c a a e a a e e f e e ffe e c e a e c e Pe M TG J a C e f a c e COB D e c e

MKTG 465-3. Promotion Strategy and Management. E a e a a e e a e a f e a e e a e a e

a b c T e ac f b e be a a abe a ae ea e a e e a c ca e a e e c be T e ea be ee e a a a e c ca a a a e ae a e e P e M TG J a C e f a c e COB D ec e

MKTG 470-3. E-Commerce. T e f c f ca ee a e f ec e ce e ec c c e ce a ec a e c e a b e e B c e e e a b e b e a ec f ec e ce bee e P e M TG J a C e f a c e COB D ec e

MKTG 480-3. Marketing Policies and Strategies. De a e c ea f e ce ff a a e e a e ce Ma e a a e a a c b a a a e e b a c Ca e a a e e e e a a ca ab e a e a e a a a ea f a e I ec e e a e a e e e a e c e a M TG bef ee c e P e M TG J a C e f a c e COB D ec e

MKTG 485-3. Marketing Analysis and Planning Project. A c e e e a e e ea c a a ec S e a ca b e e e e f ec e c a a e a a e a e e ac e e e a e a PRER M TG M TG a e a e a a a

MKTG 490-3. International Marketing. P e a e e f a e e ea e e a a a e Ma c c ee a e ec f a a e a e a a c c a a ca a e e a e a e ec a e e e a e a e a a a e e a e e a e P e M TG J a C e f a c e COB D ec e

MKTG 496-1 to 3. Internship in Marketing. U e a a e e a e P e J e b e e

MKTG 600-3. Marketing Strategy. A c ce a e e a a ff a e a c e f a e c c a e ce e e e b a c

MKTG 609-3. Marketing Strategy. A c ce a e e a a ff a e a c e f a e c c a e ce e e e b a c D a ce MBA c e T c e e ffe f ca c e

MKTG 610-3. MBA Seminar in Contemporary Topics in Marketing. A e e a a f e ec e c a e C e c a ec e ba e e c e a ce e e a ac ce f a e T fa a ce a e a e a acc e a ac e c e e a c a e e e a ea ac e

MKTG 630-3. Marketing Research and Decision Making. T e ac a a e a f f a f e e f a be e ec A e a ea ac e f acc e e a bee a ae ec a e a be ace e e f a e G e e e e ea c c b e e ea c a e a f a e e a e a a a a e c ca a e ec P e M TG

MKTG 640-3. Service Marketing. F c e c e ee e ec a a ec ce e a e e a e e c a ea e a a f e ce T c c e e ce a a e e fc e a fac a e a f e ce e a a e a c e e a a f e ce

MKTG 650-3. Marketing Communications. T e e f c ca a b e be a a ea e e ce fc ca c ca c e ce T ee a e ac ca a ec f c ea a a a effec e a e c ca a ec a a e be ace b e b e e e P e M TG

MKTG 690-3. International Marketing and Export Management. P e a e e f e a a a e e I e e ae a a f e a a a e e e a a e M e c a e ce f a c a a e e c ac a a ce a a e e e a ee ab e a a a e e ff e a e b a e a e c e A a f ec e c ce e a a ee f c P e M TG

MKTG 696-1 to 3. Internship in Marketing. G a a e e a e P e I c a Dea a a

MKTG 940-1 to 3. Independent Study in Marketing - Undergraduate. W e c e f b e c ec e a e ea P e J a

MKTG 950-1 to 3. Independent Study in Marketing - Graduate. I e e e Ma e a e a a e e e e ec e f b e c ec e a e ea P e C e f c a ea

OPERATIONS MANAGEMENT

OPTM 300-3. Fundamentals of Operations Management. I c e e a a a f c e a fac e ce a b c a a T c c e fac ca a a b e a a a c a e a a c a c f eca a a ea a ea a a c a c e e e P e C e e ac ACCT ACCT QUAN a QUAN

OPTM 339-3. Managing Projects for Competitive Advantage. C e e f a e a ec a a e e c ece a f e e a fa e ce e ce ec a a e e E a be f a a a e e e ec e a a e e e ba c a e f a a ec f b e f a e a e b c S e ea e be f e ec ec a e ea e a c e A c ee a e e e a c a e e a a ec a c c a ec a e a ec a a e e ca e ea

OPTM 449-3. Organizational Skills for Project Management. T a ea e e e ce e ea b e a ac ce f ea a e a e a a e a S e ea a a c ca e a ac e e a a e e a b ea e e ea A a ec ee a e e ee ee a e ce a ca a a e ec a a e effec e a a e ec a a c a a P e OPTM

OPTM 459-3. Project Estimation and Risk Management. Ma a e e f cce f ec c e e a a ac e a a e e a ea f ec c ec e ce a ca c e ea a ca a U ce a e ce e ec b ec ca a ec ca a e e e a e a a a e e e e e I c e be ec e a e e c e b cce f ec a a e P e OPTM

OPTM 469-3. Bridging Strategy and Tactics in Project Management. Ma a e f ec a a e e a e e b a c e f ab e e ec a a e e e a ee c e ea ec e b e a a c a T c ec e

a b a a e f c c a a e ec a ec a a e a e b ec c ec a e e f a a e e ec f ce a a c ca P e OPTM

OPTM 600-3. Operations: Competing Through Capabilities. O e a a a e e f c e e a e e a ce e e a e ce c e T c e e e e ab e a a e e fac e e f a effec e e a e a a a ea e a a a b e a e T ec e e e effec e e a a e a a a e e a e a fac e ce a b ce e P e ACCT a QUAN

OPTM 609-3. Operations: Competing Through Capabilities. O e a a a e e f c e e a e e a ce e e a e ce c e T c e e e e ab e a a e e fac e e f a effec e e a e a a a e a e a a a b e a e T ec e e e effec e e a a e a a a e e a e a fac e ce a b ce e D a ce MBA c e T c e e ffe f ca c e P e ACCT a QUAN

OPTM 610-3. Customer Focused Processes: Quality Management and Metrics. C e a fac e ec ca f e a e a e ace T c e e a e e ce a a fac ce e a e ac a S e a e e c e ce e a e be e e a e ce e e a e e c f ce a a T a e c a a a e e a a ec e e e e a e a f e c ca be ee c e e a cce e a e ace P e OPTM

OPTM 620-3. Managing Supply Chains. A c a e ee e e c a e ce c e fa e c ea e a be e a ec e e ee f c e a be ee e a fac e a a e bec e c ea a A e e e a e c ca fa e a e c a a e a a e e ff c a ac e e e a e a c a cce f De e e e a f f c a ac e ec a a be ee c a a e e e f e b ca e a e ec e ea P e OPTM

OPTM 630-3. Managing Projects for Competitive Advantage. C e e f a e a ec a a e e c ece a f e e a fa e ce e ce ec a a e e E a be f a a a e e e ec e a a e e e ba c a e f a a ec f b e f a e a e b c S e ea e be f e ec ec a e ea e a c e A c ee a e e e a c a e e a a ec a c c a ec a e a ec a a e e ca e ea P e ACCT a QUAN

OPTM 639-3. Managing Projects for Competitive Advantage. C e e f a e a ec a a e e c ece a f e e a fa e ce e ce ec a a e e E a be f a a a e e e ec e a a e e e ba c a e f a a ec f b e f a e a e b c S e ea e be f e ec ec a a e a e a a c e A c ee a e e e a c a e e a a ec a c c a ec a e a ec a a e e ca e ea D a ce MBA c e T c e e ffe f ca c e P e ACCT a QUAN

OPTM 649-3. Organizational Skills for Project Management. T a ea e e e ce e

ea b e a ac ce f ea a
e a e a e a S e
ea a a c ca e a ac e e
a a e e a b e a e e ea
A a e c e e a e e e e e e
a e ce a ca a a e e c a a e
effec e a a e e c a a c a a
D a ce MBA c e T c e e ffe f
ca c e P e OPTM

OPTM 659-3. Project Estimation and Risk Management. Ma a e e f cce f e c
c e e a a ac e a a e e
a ea f e c e c e e ce a ca
c e e a a ca a a U ce a e ce
e e c b e c a a e c ca
a e e e a e a a a e e
e e e I c e be e c e a
e e e c e b cce f e c
a a e D a ce MBA c e T c e e ffe
f ca c e P e FNCE a OPTM

OPTM 669-3. Bridging Strategy and Tactics in Project Management. Ma a e f e c a a e e a e
e b a c e f a b e e e c a a e
e e a e e c e e a e c e
b e a a c a T c e c e
a b a a e f c c a a e
e c a e c a a e a e b
e c c e c a e e f
a a e e e c f c e a
a c ca D a ce MBA c e T
c e e ffe f ca c e P e OPTM
OPTM a OPTM

OPTM 696-1 to 3. Internship in Operations. G a a e
I e f B e S e e a P e
A e MBA e I c a Dea
A a

OPTM 950-1 to 3. Independent Study in Operations and Technology Management. W e c e f b
e c e c e a e e a P e
I c c e

ORGANIZATIONAL MANAGEMENT

ORMG 330-3. Introduction to Management and Organization. A c f a a e e
f a e a a a a a be a H
a a a a a a e a e a e a
e a a a a e e e
a a a e S e a e e c e e P S Y
a SOC bef e a c e P e J
a

ORMG 411-3. Experiences in Leadership. T
e c e e e e e c a e e a a a
e c e e a e e e e e bec e
effec e a e T c c e e c e b e a
e a c c a c a e e a
a e a e a e e e a a e bee e e
e P e J a ORMG C e f
a c e COB D e c e

ORMG 437-3. Organizational Development and Change. I c e e f a a
e e e P e a c c a f a a e
a a a e c e f e a e a
e e a c a a e a a e
a a S e a e a a e
a a c a e a c e a e e b a b f
c c e f c a e P e J a ORMG
e a e C e f a c e COB
D e c e

ORMG 496-1 to 3. Internship in Organizational Management. U e a a e l e
O a a a Ma a e e H a Re c e
Ma a e e P e J e b e e

ORMG 940-1 to 3. Independent Study in Organizational Management. W e c e f b e c
e c e a e e a

PROFESSIONAL GOLF MANAGEMENT

PGMT 100-2. Orientation to Professional Golf Management. C e b e c e e e PGM
e e c e f e f f e a
c e e c a f e c a e c e
c c e f e c c e e a e a
e e e a e e a b

PGMT 101-3. Introduction to PGA/PGM Level 1. C e
b e c e a e PGM e e e
e G f P f e a T a P a c e
e e e f e a a a e c e c
C a c e a a b P e PGMT

PGMT 102-1. PGA/PMGM Level 1. C e e a
e a c e e cce e c e c f
e PGA PGM a P e PGMT

PGMT 105-2. Golf for Business and Life. G f f
B e a f e a PGA f A e c a a e
e e e a c a e e f f
b e e c e b
PGA f e a a e a c e
e c a e f a a b e a e e e
e f e a

PGMT 110-1. Cooperative Internship I. P e e
PGM e a c a e e a e e e c e f
f e a e e a a f f a c
e a b e a a P e PGMT

PGMT 200-3. PGA/PGM Level 2. C e b e c e
a a c e PGM e e e PGA PGM
a a c e a a f e e c
c e c A c e a a b f a e e e e
P e PGMT

PGMT 210-1. Cooperative Internship IIa. P e PGM
e a c a e e a e e e c e f f
e a e e a a f f a c e
a b e a a P e PGMT

PGMT 211-1. Cooperative Internship IIb. P e e
PGM e a c a e e a e e e c e f
f e a e e a a f f a c
e a b e a a P e PGMT

PGMT 300-3. PGA/PGM Level 3. P e a e e
a c e e cce e c e c f e PGA PGM
a a a P e PGMT

PGMT 350-3. Turf Grass Management. P e a e
PGM e e e e a a e e f f
a f e a e f f a c e f e c e f e c e c
a a b a a c e e a b a f e e a a
e e e a e c T c c e b f f
a c a a a e a c e a e e
PRER PGMT

PGMT 360-3. Food and Beverage Management.
P e a e PGM e a a e e f f e a
a e f f a b e e a e c e a
a e I c e b a c e a c c a
e e e c e a e a e e e I c e a a
e e e c e P e PGMT

PGMT 410-1. Cooperative Internship IIIa. P e e
PGM e a c a e e a e e e c e f
f e a e e a a f f a c
e a b e a a P e PGMT

PGMT 411-1. Cooperative Internship IIIb. P e e
PGM e a c a e e a e e e c e f
f e a e e a a f f a c
e a b e a a P e PGMT

PGMT 940-1 to 3. Professional Golf Management Independent Study. I e e e P f e a
G f Ma a e e W e c e f b e c
e c e a e e a

QUAN 201-3. Business Statistics. S a c a a c a
b e I c e e c e a c
b a b b a e e a
e e a e a e e e
P e C e e a c MATH Ma

QUAN 202-3. Process and Statistics-Based Decisions.
T e c e c e a a c e b e c e
e e e e b e c a e Dec
c a c a f a e a c
a a e e e a e c e a a c e
e c c e a a a a e T e
e c e a e a e a a e a e P e
C e e a c MATH MATH a QUAN
C e ACCT a MATH

QUAN 550-3. Fundamentals of Business Statistics.
A c c e b e a c I c e
e c e a c a c c a f e e c
b a a a b e A e e e a e e e
f e e e a e a c f e e a a c
c a c e a e e a a e a
a a f a a c e

QUANTITATIVE METHODS

QUAN 559-3. Fundamentals of Business Statistics.
A c c e b e a c I c e
e c e a c a c c a f e e c
b a a a b e I a e a c e e
e e a e e f e e e a e a c
f e e a a c c a c e a e e
e a a a f a a c e D a ce MBA c e
T c e e f f e c a c e

QUAN 619-3. Research Tools for Managers. B e
a c a e a e c e f a a
a a a f e e c e a a e e S e a e
a e b e f a a b a c e c e a c
b a b e a b a b f e
e e e a c c e P e e a f e c c a
a e a c b e a a a f a a
a a a e a e c a C e b e c e a e
e e a c c e a e a f a c a e
e f a a a a a a e e a a e e
e c a c f a e a c M c f E c e
D a ce MBA c e T c e e f f e
c a c e P e QUAN

QUAN 940-3. Independent Study in Quantitative Analysis – Undergraduate. I e e e a e
e a a e e e c e f e c
e e e c e e a e a e
e a P e C e f c a e a

QUAN 950-3. Independent Study in Quantitative Analysis – Graduate. I e e e a e a a e
e e c e f e c e e
e c e e a e a e a P e
C e f c a e a

STUDENTS IN FREE ENTERPRISE

SIFE 100-1 to 3. Students in Free Enterprise. C e a e
a a f c e e c a e e e e
b e e c a a e e c S e
e f a e e c e e c e c
a a F e a S e e e f W a
a e a a a e a c a e c e e f
e c a e c e e a c a e c c e P e I c
c e e e

SIFE 300-1 TO 3. Students in Free Enterprise (SIFE) – Collegiate Organization. C e a e O a a
f c e e c a e e e e b e
e c a a e e c c S e e f a
e e c e e c e c W a a e
a a a e a c a e c e e f e c a
e c e e a c a e c c e R e a e a b e f c e f f e e
e e e f a a f c e P e I c
c e e e

COLLEGE OF EDUCATION COURSES

COUNSELING

COUN 299-3. Introduction to Counseling Skills. P e a e e e e e fe a a e a e a l c e a e a e ac ce ba c c a ac e e e e e e a e ec f fee M be e a

COUN 483-1 to 3. Workshop in Professional Counseling. E e e ece c e fe a c e c c c e a e ce e e e c ab e c c e e ea c C a a e e ee a a a Pe e a

COUN 498-1 to 4. Special Topics in Counseling. E e e S e ffe De e a ec c c a e bee e e Ma a a a e ee a a eU e fC a a C a S e fa a e a e c a e

COUN 499-1 to 9. Special Topics in Counseling. E e e S e ffe De e a ec c c a e bee e e W a a a e ee a a eU e fC a a C a S

COUN 500-3. Introduction to Counseling and Human Services. P e a e e f e e fc e a a e ce S e ea ab ca ee e e a e e a f c f fe a c e a e T e f e e a f e e be e e e

COUN 501-3. Theories and Techniques of Individual Counseling. Ma e e f a c e a e cba e be e c e Tec e e e a ca f e ac ce c e a c a be e e e Ba c a a a ce c e be ce c ea ac ce COUN a e c c e Pe A e c e a

COUN 502-2 to 3. Lab in Individual Counseling. P eba c e e a e e a c e a c aa ce c fc e a c e ee a ac ec e a c ce S e e ae efe a a fc a a ce c a a affec e a fe ac e C e c e c a a e ac ce a e e Pe A CHS a C e COUN

COUN 504-3. Human Growth and Development. P e ab a e a f fe a e e f a e e e a f e a e a ee f a a a e e e a e e a a ab a a be a ca e a e a e e a e a e e c a c e

COUN 505-3. Introduction to Play Therapy. P e a e e e a a e a ac a e a c e a e a c e ec e e a ca eca e a A c e a a e a c ba e e f J

COUN 506-3. Issues and Trends in College Student Development. E a e e e fc e e e e e c e e ec a a e ca e c ca a e a ca e e e e e C e a e a e e ce a a a a e be e e e

COUN 507-3. Adventure Education. T a e e f e ca f a e e ce e e e a ce ea a e c a e c ea Pa c a e e a c e e e e e a ba e a e e a c a e ac e a e a ce

COUN 508-3. Role and Function of Student Affairs in Higher Education. E a e e ca a ca f a f e affa e e ce a f e e ca e e f e affa fe a fe a a ca a c e e a e Pe M be a e CHS a

COUN 509-3. Spiritual Dimensions of Counseling. A e e e a a a c e a f a e a e a f e fa e e a e e e a a a e e c e a c e a

COUN 510-3. Theories and Techniques of Group Counseling. I c e e a e a b a e a f e e e a c ea e e a c e e e C e c e a ec e be e c ea ac ce COUN a a ab a e e e ce a e c c e Pe COUN a COUN

COUN 511-2 to 3. Laboratory in Group Counseling. Ta e c c COUN c e e e e e e e ce a b a e be a ea e S e a c e a ec e a e a a e e effec e e f e e a c e a e e S e a c e e a e e e e ce Pe COUN a COUN be a e CHS a C e COUN

COUN 512-3. Practicum in Professional Counseling. P e e e e e ce c e a c a l ce ec e a c e c a a c e c a a affec e c e ce S e c e e c c f e e e e e e ce f c be ec e ce c e Pe COUN COUN COUN COUN a a CHS a

COUN 513-3. Introduction to Marriage and Family Counseling. I c a a e a fa e a a f c e a f a a e e e e S e ea e e a a a a a eca f e e e e f e c f c A e a e f e c e a fa a a e a e fa f be c e c e Pe COUN a COUN c e f c

COUN 514-3. Advanced Theories and Techniques of Family Counseling. E a e e f e e ffa c e a e c c a e e e a b e c e a c a a be a a S e bec e fa a e ffe e ce a a e f e e e e a e a c e e ec e f c a e a c a e ac e Pe COUN c e f c

COUN 515-3. Conflict Resolution Training. T c e e e a a a c c c e a c a be e a fa e a a a Pa c a be a e e a e e e a c c e a e e a c a e a e a e e Pe Oe e e e C e a H a Se ce a

COUN 516-1 to 6. Field Work in Counseling and Leadership. P e e e e e ce c e a c a l ce ec e a c e c a a c e c a a affec e c e ce S e c e e c c f e e e e e ce e e e e C e a be e e a e f ce Pe A c e a USAFA c C e COUN a COUN

COUN 517-3. Organization and Administration of Higher Education. E a e a c e affa e a e a e a e a a e e c e e ca e S e c e e e a c e e ce a a e e f a e ce c ab a a e e a e a a b e a a ce a e c a c a a c e Pe COUN 8 be a e CHS a

COUN 518-3. Legal and Ethical Issues in Higher Education. A c e e e f fe a e a f c a a bec e e a c fe a a e e e ca O e a a e e Pe A S e Affa H e E ca ac C e a H a Se ce a

COUN 519-3. Psychology of the College Student. A e a e e e a e e a ca a ea a f ec e e e F c a e e a e e e a c Pe A e C e P a

COUN 520-3. Advanced Seminar in Student Affairs. Ta e e a e e e f e e a e e ec e fa e e e a c f a c a e e c ce S e Affa T e ca e e f c c e be a a e e b e fac e be a e l e e a f e c e e e e e e a e a e e a e e a a e ab a Pe COUN COUN 8 COUN a a e C e P a S e Affa

COUN 525-3. Leader and Leadership Development. A e a f ec e e e f e ea e ba e f a a a a e a a f a e a be ef a e bec e e effec e e a e ce e a e e e e ea f ea a e a a a a fe Pe A e C e a

COUN 526-1. Practicum in Counseling and Leadership. P e e e e e ce c e a ea e a ce ec e a c e c a a c e c a a affec e c e ce S e c e e c c f e e e e e ce f c be ec e ce c e e ba a ce ec e ce Ma be e a e e Pe C c e COUN c e c e

COUN 527-3. Advanced Techniques in Cadet Counseling. A e e c e f e USAFA c e c l c e e a e e e a f a e e e a e c a e a e Aca e S e e e a e a e c a e be a e a c a a e c e a c c a e a e e e f e e a a e c e e A USAFA c e e

COUN 530-3. Laboratory and Practicum in Professional Counseling. P e e a b f a a e a c e e e e c a a c e a fee e f c e c f a a e c e f e fe a c e e Pe COUN a COUN C e COUN

COUN 533-3. Issues, Ethics and Trends in Professional Counseling. A c e e e f fe a e a f c fe a a a bec e e fe a a a a a ca fe a a e fe a e a a a a fe a c e e a

COUN 535-3. Adult Leadership Development. E e e e e e f e a e e a e e e a f c e e a e e l e c a a e e e c e a e e f e e c a a c e e e a e a c a e a c e e e e e Pe A e C e a

COUN 540-3. Research in Counseling and Human Services. A c e e e f e f e e a c ba c a c e e a c e c e e e a e a a e e a e e a e c a a e a c e a A e e f e e c e e a c e a e e e a e a fe a e e f c e Pe COUN a COUN c c e

COUN 541-3. Measurement and Appraisal. A c e e e f a a e ca aa c e c e e a a ac e a a a a a f a a e e a a e ab c e c a c fac e c a a a a e fa a a e e c e e Pe COUN a COUN c c e

COUN 543-3. Career Development. A c e e e fcaee e e e e e cc a a a e ca a f a ce a e ca ee a e e c e a cea e ca fe ea ca ee ec a ca ee e e e a a a e ce a effec e e e a a

COUN 544-3. Advanced Psychopathology and Diagnosis. A e e e f e a e e e eac a be a a c a a ce c a ca e e a e a be a e Re e e e f e DSM IV a e a e a c Pe COUN c c e

COUN 550-3. Advanced Play Therapy. B e ba c c ce e e e I Pa T e a a c e a e c e a fa e c ca e b e a a e P e a e e e e e e fa a a a e a e e e Pe COUN c e f c

COUN 570-3. Internship in School Counseling. T c e e e c c e a e e c e e a c c e a a a e c e e e e fa c e e c c e T e e f a a e f ac e a a e a e e c c e e bee e c e e f T e e c e e f e c e c e a f e c c e D e c e c e a c e b e a c e e e a c a a c e a c a fac affa a e Ma be e e a e f c e e e A f e e e f e e e f a a f e CHS a P e C e f c e e e c e a c e

COUN 572-3. Internship in Community Counseling. G a a f e c e a a e c e a e e e c e e a a e e e f c c T e e c e a f f e c e c e e e a e e a e a a e a S e bee e e e e a c e f e e e D e c e c e a c e b e a c e e e e a c e a c a fac affa a e Ma be e e a e f c e e e A f e e e f e e e f a a f e CHS a P e C e f c e e e c e a c c e

COUN 573-3. Internship in Core Leadership. E e c e e C e a H a Se ce De a e f e USAF Aca e c a e e ac e a e A F ce Aca e O e a a e e Pe Ga a e a a e USAFA c e c

COUN 574-3. Internship in Student Affairs. T c e e e affa e e ca a e c e e a e e c e ce e c Ma be e e a e e e Pe C e f c e c e a c c e

COUN 575-3. Internship in Counseling and Leadership. T c e e e a e a c e C e P a e c e e a I e e c e c e e c Ma be e e a e e e e c e e e e e e Pe COUN c e c e

COUN 580-3. Roles and Functions of the School Counselor. S e c e b a e e e f f e c c e fe e ca a a a a e e e a a c e e e a c e e c e a a ba e e c e e e e e e a a e e a a a e e a c a c a a a e a e e e a a a ba e a

COUN 581-3. Organization/Administration of the School Counseling Program. S e c e b a e e e a e e c a a a e e a effec e c e e a c ab a c a c c a a c e c a e e f a e c a e ca c e e c a a e e f a e e a a a e a a c a c Pe COUN 8 c c e

COUN 583-1 to 4. Topics in Counseling. E e e e c e c f e a c e e c c c e a e c e e e a a c e c c e e e a c e e a c Pe C e f c

COUN 584-3. Advanced Workshop in Counseling. I e f e e c e c b a e e c e e a F e a e e a a f a f a c e e

COUN 585-3. Advanced Theories and Techniques of Marriage Counseling. P e e a a e c e f e e c e f c a c b e a a e e e l c e a e e c e a a c e a a e e c e e e a c e b e f a e a c e e a Pe COUN

COUN 586-3. Social and Cultural Foundation of Professional Counseling. E a e c e c c e c e f c c a e f c e e a c a e a e c a a a c e c c a a a c e c a c c e f b a a c e a c c e c c a e b a f a c a a c e c c a a e a c e e f e e c e c a c e e a e f e c e c e e a e f a e a e c c e f a c b e a a e e e l c e a e e e c e a a c e a a e e c e e e a c e b e f a e a c e e a e Pe COUN 8 a COUN 8

COUN 587-3. School Counseling Techniques. C e e a c e c e a c c a e c e S e c e b a e e a c e e e e c e f e a a c a c a c c e c e f e e e a a e e a e c e c c e e Pe COUN 8 a COUN 8

COUN 588-3. Gender Issues in Counseling. C e e e e a a c a b a e a b e e e c e e e a c a f f e e c e D c e e a c a e a c a e b a e c e a e a a a e c c e f f e e a e a e e f e e e e a e c e

COUN 592-3. Role and Function of the Community Counselor. B a e a a f e c e f e e a e e f c e a f c f e c c e S e e a e e a e a e a c e e a e c c a a a e a e c a e a c c e e e e a effec e e b e f e a c a e a

COUN 598-1 to 4. Special Topics in Counseling. E e e S e ffe De e a e c c a e b e e e e Ma a a a e e e a a e U e f C a a C a S Pe U e a a e e e e

COUN 599-1 to 9. Special Topics in Counseling. E e e S e ffe De e a e c c a e b e e e e W a a a e e e a a e U e f C a a C a S

COUN 950-1 to 3. Independent Study in Counseling. I e e e e a a f c f e c c e e e a c e e e e e c f a fac e b e T e e c c f e e a a e c a e a c a e c b e e a fac e b e Mee e e e c a e a a a e a a e e fac e b e S e a e e c e f c a c a e S e e e e e f e e e e a a e e c e f c a c a

COUN 999-0. Candidate for Degree. T b e e b e e b e e e f c e e e e e e c e e a e c e e e a a f e a e e e e Re a a c a a e f e e f e e e f e a e e e e c c e e e a e a e N c e b e a e a e f e e a f a e e e e c e c e Pe C e f a e e

CURRICULUM AND INSTRUCTION

CURR 3199-1 to 3. Educational Technology Laboratory. A e e f e f a c e e c e a e c e a c a e b e e a a e a e a a a b e f b MAC a PC N b e f c e b e a a e c Pe T c e e e a e a a c a TEP

CURR 4051-1. Language Essentials for Teachers of Reading and Spelling: Speech Sounds of English Phonemes and How to Teach Them. Pa c a e c e e a e a a e E e a f Teac e f Rea a S e ETRS c c a a e f S We E ca a Se ce b H Mf ETRS a c e e e c e e e c a e e a e c c f e a e e e a e a f e a c T c c e e c e e e c e a b e c c e c e e e a b a a a e a e c T e e c a e c e e e c e T c e c e ca ce e c e e a a e e a c Mee CURR

CURR 4052-1. Language Essentials for Teachers of Reading and Spelling: Teaching Phonics, Word Study and Alphabetic Principle. Pa c a e c e e a e a a e E e a f Teac e f Rea a S e ETRS c c a a e f S We E ca a Se ce b H Mf ETRS a c e e e c e e e c a e e a e c c f e a e e e a e a f e a c T c c e e c e e e c e a b e c c e c e e e a b a a a e a e c T e e c a e c e e e c e T c e f c c a a e e a a e e a e c c a b a a e c e e e Mee CURR

CURR 4053-1. Language Essentials for Teachers of Reading and Spelling: The Mighty Word: Building Vocabulary and Oral Language. Pa c a e c e e a e a a e E e a f Teac e f Rea a S e ETRS c c a a e f S We E ca a Se ce b H Mf ETRS a c e e e c e e e c a e e a e c c f e a e e e a e a f e a c T c c e e c e e e c e a b e c c e c e e e a b a a a e a e c T e e c a e c e e e c e T c e f c e e a a e c e e a e e c e a e a e a e e e a Mee CURR

CURR 4054-1. Language Essentials for Teachers of Reading and Spelling: Getting Up to Speed: Developing Fluency. Pa c a e c e e a e a a e E e a f Teac e f Rea a S e ETRS c c a a e f S We E ca a Se ce b H Mf ETRS a c e e e c e e e c a e e a e c c f e a e e e a e a f e a c T c c e e c e e e c e a b e c c e

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CURR 4055-1. Language Essentials for Teachers of Reading and Spelling: Digging for Meaning: Teaching Text Comprehension. P a c a e c e e a
e a a e E e a f Teac e f Rea
a S e ETRS c c a a e f S
We E c a a Se c e b H M f ETRS
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e a e a f e a c T c c e e c e
e e c e a e a b e c c e
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T e e c a e c e e e c e c e
T c e e c c a c e e c e a
a e e a a e a e f e b e f e a
a f e e a a e f a c b e
c e e Mee CURR

CURR 4060-3. TeachSpecialEd.com: Foundations in Special Education. T c e a c e e f
e c a e c a c e f c e c e a
a c c e P e e c b f a c a c
e a e e a e a c c e a a e e
a e f e e a a a e c e f b e
e a c e e e e a e b e
Mee SPED

CURR 4061-3. TeachSpecialEd.com: Development and Characteristics of Learners with Exceptional Learning Needs. F c e a c e c e
a b e c e a e a a e a
a b e ADHD a b e a a e Teac e
a e a c e a b e f e f
c e c e Mee SPED

CURR 4062-3. TeachSpecialEd.com: Assessment for Instructional Planning and Decision Making.
F a f a e e a e a e e f e
e e c e f c a a a e c a
e a a e c a c e a e c e e a
e c e e f c e e e f e a e f e a e a
c a c a A e e a e a e e I E P
e e e Mee SPED

CURR 4063-3. TeachSpecialEd.com: Instructional Strategies - Creating Environments that Promote Learning, Appropriate Social Interactions, and Behavior. D e e e f e a e
e a a a e f e a c e a c a e a
P e e e a e e c e f a a c e
b e b e a l e e a e
e f b e b e a a e c e f
c a e a c a b e a Mee
SPED

CURR 4064-3. TeachSpecialEd.com: Instructional Strategies - Teaching for Results. P a f
effec e c e c e a f c f c e
l c a a a a e
c e c e c a c e
a a e c e f effec e c
C c ba e a e e c e e a
e c c a f e c e Mee
SPED 8

CURR 4065-3. TeachSpecialEd.com: Instructional Strategies - Improving Basic Reading Skills.
E a e e a c b e e a a e e
e a e c l a c a b e e a c e
e c e a e a e e a e c a
e e Mee SPED

CURR 4066-3. TeachSpecialEd.com: Instructional Strategies - Improving Reading Comprehension.
P e a e e f e a c e e
e a e a c e e c e a e a
e e A e e b a e e b a e
a a e e a b e c e e a e a c
c e e a e e Mee SPED

CURR 4067-3. TeachSpecialEd.com: Language and Communication in Diverse Learners. P a c e e e
f e c e a e a e e a e c e f c a
f f e e c e a e a f c a a e a
c c a a a e e e e a c
c a e a e c e e Teac e c a a e
e a e A e a e a e a a e
c c a e e e a e a e e Mee
SPED 8

CURR 4068-3. TeachSpecialEd.com: Collaboration and Instructional Planning in the IEP Process. E a e
e e e a a b a e I E P a c c e
IDEA e e e l c e e f c a b a
a e e c a b a e a c e
effec e e f e b e e a c e e e e
a e e a f I E P Mee SPED 8

CURR 4069-3. TeachSpecialEd.com: Professional and Ethical Practices. F c e e e c a a a a
c e f e f e E c a e e a e
a e e e c a a c
a e c e a f a e a a f c e e c e
a e a e e a e c e e Mee SPED 8

CURR 4100-2. Introduction to Technology in Education.
C e e f a e a c c e f c e e
e c a T e c e e e f a c c
e e e c e e
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CURR 4102-1 to 4. Selected Topics in Education Technology. Offe e b e e c e e e
b e a f a c e e e c a e c a
e e a e E a e f a a e c c e e
f e e a e b e c a a
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b e c a e a e f a a c e e c e c
a a e e a T c a e e e
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CURR 4103-3. Technology for the Learner with Special Needs. P a c a e e a e e
e a e a b a a e f e c c a
a e e e e e f e c a e a e f f e e
c b a e a b e S e a c c
e a e e f a a e e c e a a
e e c e e a e e e a e e
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e c a e a e c e e e Mee
CURR

CURR 4131-1 to 3. Web-Based Delivery of Training.
T e e f a f c e e a e e a a e
f c e a e b b a e e e f a T e
c f e e e e a e e c
e e S e a e e e f
Mee CURR

CURR 4440-1 to 6. Selected Topics in Reading Education. Se e c e c a e e a
e c a b e e e e E a e f e c a
c c e l c W e a a e W e
a a e a P c l c Rea W a
S e C e c a e a e a e P e
Bac e e e e E c a e a e e

CURR 4498-1 to 4. Special Topics in Curriculum.
E e e S e f f e D e e a e c c
c a e b e e e e Ma a
a a e e e a a e U e f C a a
C a S e f a a e a
e c a e

CURR 4499-1 to 4. Special Topics in Curriculum.
E e e S e f f e D e e a e c c
c a e b e e e e W a
a a e e e a a e U e f C a a
C a S

CURR 4504-1 to 4. Topics in Teaching Science.
E e e e c e c e c e e a c T c
a e a c e c e f f e e Mee CURR

CURR 4597-1 to 6. Special Topics in Curriculum.
E e e S e f f e D e e a e c c
c a e b e e e e W a
a a e e e a a e U e f C a a
C a S Mee CURR

CURR 4599-1 to 9. Special Topics in Curriculum.
E e e S e f f e D e e a e c c
c a e b e e e e W a
a a e e e a a e U e f C a a
C a S

CURR 5002-3. Issues, Strategies and Models in Curriculum Design. D e e a e e
e c a e f f e a e a effec e c c a
f a a e f e a e A a e f c c e
a a e e b e e

CURR 5011-3. Education Profession: Its Bases and Contexts. P c a a c a b a e f c e
e c a a e e e e f e c a a e c a c
c e e c c a a e b e e a c
e e c f e a c e e c a f e effec e
e c a c c e a P e
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CURR 5012-3. Understanding Learners and Learning.
U e a a e e e a c e a
a a e a f a c e e
c a e c a affec e a e
e a e e e a e
a e a c e a a e e a f e
e e a P e Acce a c e COE A e a e
c e e P a

CURR 5013-3. Instructional/Classroom Management Strategies I – Elementary. I c a e
a a b a e c c a e a c a
a a e e a c e e a a e a c
e a c a e a e e a e a
c c a c c e a e c P e
A A e a e c e e P a

CURR 5014-3. Instructional/Classroom Management Strategies I – Secondary. Ge e a e a c a e e
e e e e a a e e f e a c
e c a c e a e a S e c c a e e f
e e a a b a e c c a e
a c a b e c a e a Tec c a e e
a e e a e a a a e e c a
a a e e a e e O e a a e e
P e Acce a c e COE A e a e c e e
P a

CURR 5015-2 to 4. Instructional/Classroom Management Strategies II – Elementary. C a
f C U R R e a a a e a
e a a e a e c e
e a c e P e Acce a c e COE A e a e
c e e P a

CURR 5016-3. Instructional/Classroom Management Strategies II – Secondary. C a f C U R R
e a a a e e a a e
a e e c e e a c e O e a a e
e P e Acce a c e e COE A e a e
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CURR 5017-3 to 6. School Residency and Teaching Seminar – Elementary. F e e c e a c a
a e e e a c e a e e a e a a
c a a e c a e e a
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a e a c e a e P e Acce a c e COE
A e a e c e e P a

CURR 5018-3 to 6. School Residency and Teaching Seminar – Secondary. F e e c e a c a
a e e e a c e a e e a e a a
c a a e c a e e a
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CURR 5019-3. Teaching Seminar in Elementary Education. E a f e a f e a
a c c e e e a e e a e a c f

CURR 5020-3. Teaching Seminar in Education – Secondary.

CURR 5030-3. National Board Certification Candidacy.

CURR 5031-6. National Board Certification.

CURR 5050-1 to 4. Workshop in Curriculum.

CURR 5051-1. Language Essentials for Teachers of Reading and Spelling: Speech Sounds of English Phonemes and How to Teach Them.

CURR 5052-1. Language Essentials for Teachers of Reading and Spelling: Teaching Phonics, Word Study and Alphabetic Principle.

CURR 5053-1. Language Essentials for Teachers of Reading and Spelling: The Mighty Word: Building Vocabulary and Oral Language.

CURR 5054-1. Language Essentials for Teachers of Reading and Spelling: Getting Up to Speed: Developing Fluency.

CURR 5055-1. Language Essentials for Teachers of Reading and Spelling: Digging for Meaning: Teaching Text Comprehension.

CURR 5060-3. TeachSpecialEd.com: Foundations in Special Education.

CURR 5061-3. TeachSpecialEd.com: Development and Characteristics of Learners with Exceptional Learning Needs.

CURR 5062-3. TeachSpecialEd.com: Assessment for Instructional Planning and Decision Making.

CURR 5063-3. TeachSpecialEd.com: Instructional Strategies – Creating Environments that Promote Learning, Appropriate Social Interactions, and Behavior.

CURR 5064-3. TeachSpecialEd.com: Instructional Strategies – Teaching for Results.

CURR 5065-3. TeachSpecialEd.com: Instructional Strategies – Improving Basic Reading Skills.

CURR 5066-3. TeachSpecialEd.com: Instructional Strategies – Improving Reading Comprehension.

CURR 5067-3. TeachSpecialEd.com: Language and Communication in Diverse Learners.

CURR 5068-3. TeachSpecialEd.com: Collaboration and Instructional Planning in the IEP Process.

CURR 5069-3. TeachSpecialEd.com: Professional and Ethical Practices.

CURR 5090-3. Master's Research Project.

CURR 5100-2. Introduction to Technology in Education.

CURR 5101-1. Introduction to Technology in Education Laboratory.

CURR 5110-3. Evaluation of Computer-Based Training and Education Programs.

CURR 5120-3. Project.

CURR 5121-1 to 3.Selected Topics in Educatinal Technology.

C eca be e a f a ae e ee
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CURR 5122-3. Technology for the Learner with Special Needs. S e e e a e aae
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ea e e ea e c e e e Mee
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CURR 5123-1 to 4. Field-Based Practicum in Educational Computing and Technology. S e
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e be a e e e e ece e ca
a ec a e ca a e Te ec c
f e e a a e caea ec
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fac e be S e ae e c e f
e c S e e e e ecef e ee
e ae e e c e f e a
S e aee ece b a e a
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e ab a ac ec e
e e e a e a aec c a a f
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CURR 5130-3. Multimedia Development. T e e f
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a e e e f Ga a e c e
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CURR 5131-1 to 3. Web-Based Delivery of Training.
T e e f afce e a e e a a e
f c e a eb ba e e e f a Te
c f e e e a e ec
e e S e a e e e f
A e e f e a e eba ca
f e a a a be e e f a a e c e
Mee CURR

CURR 5140-1 to 3. Graphics Design. T e e f
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a c e Te c c e a c
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CURR 5150-3. Instructional Message Design. De
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CURR 5151-3. Instructional Design I. P e a
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CURR 5152-3. Instructional Design II. B
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a ca f ID a b a e c fe e
Fe a be e e Pe CURR

CURR 5153-3. Authoring. S e e a e
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fc e b a e a T c c e a a
e c CMI a C af e a Te
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CURR 5154-3. Technologies for Computer-Based Training and Assisted Instruction. Ha a e a f
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CURR 5162-6. Practicum in Instructional Technology.
S e ee c e c e a
CBT ec c a e ca e e f
b e a e a c e e ca Pe CURR

CURR 5170-3. Introduction to Technology in Education. T c e e a e e a
a e e a a c e a c e
Rea ec ba e a c e a e
a c a e e e e e a b a fe
a e e b a e e a c a e a
e c a e a e e a b a e c

CURR 5171-3. K-12 Web-Based Educational Resources. S e e a c e e a e
e l e e e c c a e a
e a a e a e b b a e e c a a e c e e
e c a a e S e e a e e
e e a e e b b a e e c e
a c a

CURR 5172-3. Multimedia Development for K-12 Educators. T c e e e f e c a
a e e e a c e e a e c
a a a a c T e c e e
e a a e e f e a e e a
e c e e a e a c e c a b a
e c a a e c e e e a
a c e

CURR 5201-3. Foundations of Gifted Education. A
c c e c e f a
e c e a f f e c e a e f a e e e e
e a f e a a e e e a e l c e a
c a e f e e e b a c e
e e f f e e e a c a a c e c
f e f e a a e e H a e e
a f e a c a e c a c e e e a e a
e a e a f f e e e e e e
b e c e e

CURR 5202-3. Assessment and Identification of Gifted and Talented Students. E e e a a e
f e c e a a f a f a a e
f c e e f f e e a a e
e e e T e e e c a a f a a e
e a e e a c a b e a e a e
f e e c a a e c a e e
c a f f e e a e c a a a e
b e e a b a e a e e e f e e a a
a e a e c a a e e

CURR 5203-3. Psychology of the Gifted: Social, Emotional Needs, and Special Populations. S e
e e c e e e a c c a e a
a c a c e e c e e a e c a
a e a c e f f e e T c c e
e f e c e e e a e a c e e
e a e e a e b a e c a
e e a a a e f e T e a b e a
a e e e e f e c a e e c e a
e e e e e e e f e e e a e a
b e a e e

CURR 5210-3. Arts for the Gifted. E e a a e
f a a c e f e e e e a a e a e
T e e b e a f c a f a c e e a a c
e a c a c e a e a e e
e e e f e c a e e a e Mee
SPED

CURR 5211-3. Curriculum Models and Aligned Programming for Gifted Students. P e e f a
f e e e e f f f e e a e c c a f
f e e Me a e a a c c
e a e e e e a c e O e c
c e e f f e c e a c c e a e
a a c c f a f f e e c e a c c e p t a b l e
e a a f c c f e f e c e
a e e c e e e e a e e a e c
a c c e a c e e e c e
c e a e e c a b e b a e e a
c c a c a a e c a

CURR 5212-3. Reading and Language Arts for the Gifted. E e a e a e f e a a
a c e f f e e a e C e a a e c e
e a e b a e e e e c e a e a
c a e a c e a e a e a
a c a e a a e e Mee SPED

CURR 5213-3. Social Studies and Humanities for the Gifted. A e e e e a c f c a e a
e a e f e a a e e e a e
A e a e c a a c c a e
e a e Mee SPED

CURR 5214-3. Differentiated Instruction and Research-Based Strategies for Teaching the Gifted. F c e
a e e f e a c f e a a e e e a e
E a a c e c a e c a
b a e e e c a a c a a c e c e a e e
a b e e c a e c a
e e e Re e a c b a e c a a e e
f f e a a e e e a e e b e e e
a c a b a e f f e e a e c
a a e b e a e e a e
a e a e e e a c e a c a
e e e e a f f e c e
De e e a b e a e a a
a c a a e e f e effec e
e a a c e e e

CURR 5220-3. Creative Problem Solving and Future Problem Solving for Gifted Learners. C e f a e a
c e a b e f e e a f e
b e C e c e f c b e
e e c a f a e e e a c a e a
c c a e a c a e e Mee SPED

CURR 5230-3. Gifted and Talented Practicum. A a
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a e e a e f e e c a c e S e a e
e e c e e e a e e a a
e e e e e e e e c e a e e e a
a f a c e b e e e a e a c e
e a c e f e

CURR 5301-3. Mathematical Connections and Concepts. E a f c e a e a c c c
c a c a e e e
e e e c c e a e e a a b e e e a
f e c e c b e e e a a e a c a
c A c a f a e a c e c e
H c a b a c f e c a c c

CURR 5302-3. Mathematics for Today's Teacher: Standards-Based Teaching, Technology, and Testing.
C e e e c e e effec e a a e
a e a c e a c c a b e
e Ma e a c a e a a
a e e a f a a e a e a c a
c c a b e a a c e a e
a f e c e a c e e e a a
b e e a e

CURR 5303-3. Quantitative Literacy in American Schools. A e e f e e a a a b a e
a e a c a c l c e effec f
b a e e f b e b e e e
e a a c a a c e e a
b e c a e a c a e a e D e e e a c
a a a e e f e a c a a e
e a c a e e a e a c a e a a
b e e e

CURR 5304-3. Mathematics and Cognition. H
e a a c c e a a a e a c a a
b a e c e c e e e a b a e a c
e a c e P b e a e a
a C e G e l c b e e a e
c c a f c c e e a a e e
a c e e c e a e e

CURR 5305-3. Teaching and Assessing Manipulative-Based Mathematical Inquiry. U e a a a e e a a a e ef ace ba e a e a ea e e be e a e S e be ec a e c ea ec c ee a e e a a e e a e c a e e e a e ef f a ab e a fee ab a e a ca a a

CURR 5400-3. Teaching Reading and Writing in Content Areas. F a a a f c e a ea c e a ea a e a e e ea ab fc e a e a cab a a a c e e a a a ce e

CURR 5401-3. Teaching Reading in the Elementary School. C a a ea a f e a c e e e e f ea c c e a a a c e e e e a c e e a c e e e a c

CURR 5402-3. Teaching the Basal. A ca fc e c a ec e ea ba a ea e e Fc e c fa e a e be a e a e e a e

CURR 5403-3. Introduction to Clinical Experiences. I c a c e a a e e c ea e e a c e T a a ac

CURR 5404-3. Facilitating Reading in Preschool and Kindergarten Classrooms. H ca bac f ea ea e a a e e f a a c e a c e e c a e a e c a

CURR 5405-3. Teaching Reading to High-Risk Children: Let's Teach Our Children to Read. P e e eba c f a ea e eac ea a e P e a f a ea ea fc ea a abe ea a c a a a e e a c be a e e a fc e ea e f a ce Fc e e e c a ca f a e e ca c O e a a e e

CURR 5410-3. Informal Diagnostic and Remedial Techniques of Reading. Ca e f ea ab a ec e e e eac e ea e a a a

CURR 5411-3. Psycholinguistics and Reading. A a a f e a ce f a c c e a E a e a c e a e e c e ea ea c e e e a a e ca f ea ac P e CURR CURR

CURR 5412-3. The Reading-Writing Connection. E e e e a a e be e e a ec a e c B e a a a e e e a e a abe a f e c e e a a e a c e Rea e a e a e b a f c a e a f c e

CURR 5413-3. Developing and Implementing Literacy Programs. P ce e a a f a c e e c f aff a e a c e b e a e a a Pe f c e a c e f c

CURR 5420-3. Children's and Adolescents' Literature. Rea a e a a fb f c e f a ab c e b c e e e a a a a a b e e a c e f e a

CURR 5421-3. Literature for Adolescents. Rea a e a a f e a e f a e c e E a e e a e a e a e b fe a e a a Mee SPED

CURR 5430-4. Reading Clinic Procedures I – Elementary. S e e a f e a be e a a e e e e e a c c a e a ac P e CURR c e f c Mee CURR

CURR 5431-4. Reading Clinic Procedures II – Secondary. S e e e e a f e a b e e a e a c a e a e f e a ab e a e P e CURR c e f c Mee CURR

CURR 5432-3. Supervised Practicum in Reading – Elementary. F a a c e e a e a ce c a a e e e a e e S e e e a c e e f c e a c a f a a c e P e CURR a c e f c

CURR 5433-3. Supervised Practicum in Reading – Secondary. F a a c e e a e a ce c a a e c a e e S e e e a c e e f c e a c a f a c e P e CURR CURR a c e f c

CURR 5440-1 to 6. Selected Topics in Reading Education. Se e c e c a e e a e ca be e e e E a e f e c a c c e l c W e a a e W e a a e a P c l c Rea W a Se C e c a e a e a e Pe Bac e e e E ca e a e e

CURR 5441-1 to 3. Write Traits: Using Six Trait Models in the 21st Century. e a e ba c f Ta W c a a e e c effec e a e e f e e be e e a a ce e a effec e a e a c e E e e S e ffe W a a a e e e a e U e fC a a C a S

CURR 5462-3. Elementary Literacy Methods. Ee e a e a a e a c a c e a a e e e a a e a e a C a M e C e Sa a Pe Acce a ce A e a e c e e P a

CURR 5464-3. Elementary Mathematics Methods. Ee e a a e a c a e e c c e f e e a e a c c e a be a a e C a C e Ma Sa a Pe Acce a ce A e a e c e e P a

CURR 5491-3. Secondary English Methods. G e a e e f c a e e a a e a E a e e e e e a c a e e a a e e a C a e c e a a Pe O e a e a a c a A e a e c e e P a Mee TED a TED

CURR 5492-3. Secondary Math Methods. G e a e e f c a e e a a e a a a e e e e a c a e e a a e e C a M e C e Sa a Pe O e a e a a c a A e a e c e e P a Mee TED a TED

CURR 5493-3. Secondary Science Methods. G e a e e f c a e e a a e a ce c e a e e e e a c a e e a a e e C a M e C e Sa a Pe O e a e a a c a A e a e c e e P a Mee TED a TED

CURR 5494-3. Secondary Social Studies Methods. G e a e e e f c a e e a a e a ca e a e e e e a c a e e a a e e e C a e c e a a Pe O e a e a a c a A e a e c e e P a Mee TED a TED

CURR 5495-3. Secondary Spanish Methods. G e a e e f c a e e a a e a S a a e e e e a c a e e a a e e C a M e C e Sa a Pe O e a e a a c a A e a e c e e P a Mee TED a TED

CURR 5501-3. Exploring the Science Curriculum. E e e c c a a e e a f a f e a c e c e T e c e e e a a e f a e e f c e a a e e c e c e c c Pa c a a c e e e a e c e a e e a c a a c c e c e e a c a c e e e c e c e a e a a a e a a

CURR 5502-3. Developing Manipulative Materials for Science Teaching. De e e a b e e a c e a a e e e e a a e c e c e a e a f ea a a a b e e c e Pa c a e e a e a e a e a f e a c e c e a c e a f a a e b e

CURR 5503-3. Integrating Reading and Science. Fa a e e a c e c e a a c e c e c e a e a e c a Pa c a e a a c e e a e a e a a a e f c e c e e c a a a a e e a a e e c e f e a e c a Ma a c e e c a c a a c e c e b e e e e

CURR 5504-1 to 4. Topics in Teaching Science. E e e e c e c e c e a c T c a e a c e c e ffe e Pe Ba c e e e e E c a e a e e Mee CURR

CURR 5510-3. Science and Environmental Education for Gifted Students. De e f e c a e e e e e e a b f e a a e e e c e c e e c a a e e a e c a T e c e e a e a e e c e c e c e f f e a a e e e l a e e c e a e f e a c c e c e f e a a e e e Pe Teac e e e c e

CURR 5511-3. Teaching Energy and Environment. Fc e c e a e e a e e a c a e l e e f e e e a e c a e a c e E a a c e c a f e e a e a e a e a e a b e e e e e e a c e

CURR 5512-3. Energy and Environmental Activities. Fc e e e a a c e a e a e a a e a e a f e e e e a c e a T c e e e e a b e c a e a c e a a e e e e a c a f a e a e c e

CURR 5513-2. Activities for Teaching Earth Science. Fc e a e e c a a c e f a e e a c e a c e c e c M a c e e e e a e a a a b e f e c c T e c e c e e a c c a c e a a e a a e a a

CURR 5514-3. Activities for Teaching Weather. P e a c a a c e e a a a e c f e a e a e a e e c T c c e a e c f e a e a f c a e c a e b a A b e e b a a A c e e e e e b e a c a b e f e e e a c a e

CURR 5520-3. Activities for Teaching Physical Science. De e f e a c e a a e e a c e a e a e fac e f e a c a c e e c c e C e a c e c e e a c e be e e e e c a c e c e c c e a a e a e e e c e

CURR 5521-2. Activities for Teaching Electricity and Magnetism. P e c a a c e e e c a a e f e a c e Ac e a e e e f e a e a e a a a a b e f c a c e Tec e c e a e a e f a c e a f e e a c f a e e e a f e a f e e a c e

CURR 5522-3. Teaching Cosmology – Explaining the Universe. U e e PBS e e Se e Ha U e e e a a b a f e e a e e f

e e ef e e ca ae
e eTec e f c e a e
b a c e a c a c ca
c O e a ae e Pe
Acce a ce Ma e P a

CURR 5530-3. Cutting Edge Science for Cutting Edge Teachers. F c e e a f c e a
a a a e aaba e e c l b a c
a a ae ece e e e ce ce
a ec l a eac e e e c e
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e f a e ce ce eac f

CURR 5540-3. Earth Systems Science. T c ef
ea c eac e c e e
e a a e ca f a c ae
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CURR 5541-3. Rocketry and Biology of Living in Space. T c e e e e a face f c e
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CURR 5542-3. Biological and Physical Research.
Sea c e e e f e a e a
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CURR 5543-3. Astronomy Principles for the Classroom. F c NASA E e ef S ace
Sc e ce S f a e aa e a a
e ca a e c f ace Ve e
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CURR 5544-3. Space Technologies for the Classroom.
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CURR 5545-3. Rocketry and the Biology of Living in Space: Space Law. B e c c e ce e a a
e a ec c a ec S e effec
f a ace D c e ace c ce a
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CURR 5590-1 to 6. Rocky Mountain PBS Professional Development. P fe a e e e c e
ffe e b R c M a PBS f e ca e
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CURR 5591-1 to 6. Rocky Mountain PBS TeacherLine Professional Development. P fe a e e e
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CURR 5597-1 to 6. Special Topics in Curriculum.
E e e S e ffe De e a ec c
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a a e ee a a e U e f C a a
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CURR 5598-1 to 4. Special Topics in Curriculum.
E e e S e ffe De e a ec c
c a e bee e e Ma a
a a e ee a a e U e f C a a
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CURR 5599-1 to 12. Special Topics in Curriculum.
E e e S e ffe De e a ec c
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CURR 5670-3. Philosophy, Organization, and Current Issues in Middle Level Schools. P a a
f e e e e ca a c e e e
e e e ca e a a e e
e af a af e ea c e
e a a e a affec e e e
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CURR 5671-3. Introduction to Middle Level Schools.
O e e f e e c e f e
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CURR 5672-3. Curriculum, Instruction, and Assessment for Middle Level Schools. Effec e e
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e ea a e ce be e f c f c e
T c a bec e e c e ec e f
e e e c c c a e e ec e
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Va e be e e e a ac e
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CURR 5673-3. Communication and Technology in the Middle Level School. C ca a e e e
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CURR 5675-3. Interdisciplinary Teaming for Middle Level Teachers. C ea aca a e e
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CURR 5676-3. Leadership in the Middle Level School.
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CURR 5700-3. Introduction to ESL/Multicultural Education. P e ac e e e e f
a f e ca e ea c a
e ca e l c e a e a f
b a ca e e e ca c a
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ca e e e ca ec e f e ca
e e ca c a a e e a a
c e a f eac e e E ce
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CURR 5701-3. Materials and Methods in Linguistically Diverse/Multicultural Education. P e a e
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ca P e e e a c e ec c
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e E a e e f e e
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CURR 5702-3. Literacy for Linguistically Different Learners. P e e c e a e e e
a e eac ea c a e e
ec a a e ea e l c e e e f a e a
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CURR 5703-3. Assessment: Methods, Materials, and Theories for ELLs. P e a e eac e a e a
e a a e ES e a e ba e e l c e
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CURR 5704-3. Practicum in ESL/Multicultural Education. A e ba e a a ba e c e a
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c S e a e a ca
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CURR 5705-3. Second Language Acquisition: Capstone. P e e b a e f e c a a e
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ec c fac a c b e E cce
c P e CURR

CURR 5706-3. Curriculum for Multicultural Education.
A a e c c a e e ca
a a e c e a a f e ca f
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CURR 5707-3. Pro-Seminar: Parent and Community Involvement F c e e a a e e f
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c D c e a a e c ce c a
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CURR 5708-3. Research Issues in ESL/Multicultural Education. Offe ac ca e e e ce e e c e
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CURR 5709-3. Theories of Learning and Development.
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CURR 5710-3. Education and Sociolinguistics.
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CURR 5712-3. Ethnographic Methods in Educational Research. E e e fe a
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CURR 5740-2 TO 6. English as a Second Language Professional Development Courses for Special Education Teachers. T e e f e e c e
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CURR 7000-1 to 6. Master's Thesis.

CURR 9500-1 to 5. Independent Study in Reading.
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fa fac e be T e e c c f e e a
a e c a e a e c b e e
a fac e be T e e e e e c a
a e a a a e a a e fac e be
S e a e e c e f e c
S e e e e f e e e
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CURR 9600-1 to 3. Independent Study in Curriculum.

CURR 9601-1 to 3. Independent Study in Junior High/ Middle School Curriculum.

CURR 9602-1 to 3. Independent Study in Gifted/ Talented.

CURR 9603-1 to 3. Independent Study in Educational Computing and Technology.

CURR 9604-1 to 3. Independent Study in Reading.

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LEAD 499-1 to 9. Special Topics in Leadership.

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LEAD 507-3. Human Resources Development.

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LEAD 516-2. Curriculum Leadership in a Multicultural Society.

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LEAD 522-2. Program Evaluation and Curriculum Assessment. De e be a e EAD
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LEAD 524-1. Leadership and Management of Programs for Special Populations. S e e ec a e e
a ee ac e a f c fa e
E a ace e e a a e ca a e e
e f eca a c T e l Se ca
E ca Gf e a Ta e e ES Sec ADA
a IDEA Fe e e

LEAD 525-2. Creative Communication for School Leaders. E a e a e e f effec ec
ca a e ce a a a
effec e e e a a c c c c e a
f effec e e c ca E a ace
e e f ec a c e a c ca
f e a e Fe e e

LEAD 530-1 to 6. Leadership and Leadership Development. e a e c e c a e ce
e e a c a e f c f A Of ce C a e
C e ec ca e e f USAFA c Pe
A c e a USAFA c

LEAD 545-3. The Principalship. E a a f e
c a a e e e a e a c
e e ba e e e a c a ec e e ac ce
A a f c a a a a ca a
e a e c a e e A e e f c e a
c e c a f e c a a
Fe e e

LEAD 553-1 to 4. Workshop in Leadership.
C e a a a a e a ca e e ca
f e e e c e f e e ca e a e A
e e f c e e a e e e a a
e c a e c a be e e e f efe e ce
c e ba e a c e

LEAD 554-1 to 4. Advanced Topics in Leadership.
I e a a a ca f e a e c e
e a e c e a c e

LEAD 560-3. Social Foundations of Education Trends.
A e e e e a f c ce b
f c e e f e e e c ca
ca e ce e e e a e a e a
e ac e e e c e A e ca e e
e a be e e e f e a e e a
e ca Va e a e e e a c
e e a e e

LEAD 570-3. Introduction to Research and Statistics.
I ce e a e f ce a e e c a ab e
ce e a a c e a c e a C e ba c
c ce a ca fe e ce e a a a
e e a c e a a a fe ca a e e a c
a c ca e a a f b e e e a c C e
f e a c e c e e

LEAD 598-1 to 6. Special Topics in Leadership.
E e e S e ffe Ge e a c a
E ca a e a e Ma a a a e e e e
a a e U e f C a a C a S
e fa a e a e c a e
Pe U e a a e e e e

LEAD 599-1 to 9. Special Topics in Leadership.
E e e S e c e ffe De e a
ec c a e be e e W
a a a e e e a a e U e f
C a a C a S

LEAD 604-2. Developing Collaborative School Communities. e a e c e c a e ce
e e a c a a a a e a e c
e e a c a a a S a e e f fac a
c ab a e e c a a c a e ce e
b c a c a a
e e a f a e e a a
a e a a Fe e e

LEAD 605-3. Financing Schools and Programs.
E e f ce f b c c ce e
a c a a b e ca a e
e a be e e c a effec e e c
e ce c e e c ff acc
e e e a a e ce e E a
a a e e f b e e b e Fe
e e

LEAD 612-3. Educational Politics in a Democratic Society. A f e c ce a ce e
e a e a a f e A e ca b c c
e a e fe e a a e e e a e a ca
c c e e c e a e e ce
a e c e f e c ac Fe
e e

LEAD 614-3. Supervision and Evaluation of Instruction.
T e e f e c a e a e fac a c
a effec e e a e cce E a a
a e a e e c e a e a a c e c
a a a a e a a e c e a a e
c fe e c a e a a f c
e c e Fe e e

LEAD 640-3. Legal Issues for School Leaders. Fe e a
a a e a f a e e c e c a
e c e e a e e e a e e G e a c e
c a e e f A e c a e c a e a
e e a e a e a f c a a
a a a e e e Fe e e

LEAD 682-3. Practicum in School Leadership: The Principalship. A f c c f
a a a a c e a e e e e a e
a c e e e e b e e
a e e e c a a c a a
c e c a c a P fe a
f c e c e e c e e e f a
c e

LEAD 686-3. Superintendent as Transformational Leader. E a f e a e c a e e f e
e e e c a c e a f c e a a
C e ba e C a c e e a a
NCATE c c a a a AASA fe
a a a f e e e e c Fe
e e Pe C e fA e P c a
c e e P a

LEAD 687-3. The Superintendent as Manager of Quality Systems. E a f a a e e c a e e
f e e e e e c a c e a f c e a a
C e ba e C a c e e a a
NCATE c c a a a AASA fe
a a a f e e e e c Fe
e e Pe C e fa e P c a
c e e P a c e f c

LEAD 688-3 to 6. Practicum in Central Office Leadership and the Superintendency. M f
c c f c e a f c e a a a c e
e e b e e a e e
e c a a c a a c e c a e e
a P fe a f c e e e
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LEAD 700-1 to 6. Master's Research Laboratory in Leadership. ab a e a e b fe
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e e a a e e a e e e
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c e f c

LEAD 710-3. Intermediate Quantitative Research and Statistics. S e e a a a a a c e e
f a a a a e a e a
e e a f e c e a fe e a e c e
T c c e e c e e e a e a e e ANOVA
e e c e a a e e ANCOVA
MANCOVA Fac A a a e e c e a c a e
a c a a O e P D e Pe
I c Sa c e a e

LEAD 715-3. Methods of Qualitative Research. l e f
a c ffe ca e a
e e c e e a a a a e
e e a c e S a f a a e e e a c a
a e e e c e f a c
c a a a a e a c e
a a a e e De e c e e c
a e c e f a e a a e
a a e a a O e P D e Pe
I c Sa c e a e

LEAD 730-3. Ethical Leadership and Democratic Values in a Democratic Society. E a e c ca e e
e f e e e e a a e a c e fe ca
be a a a a A a e
e c e a a c c e f a a a
a a c e a e f e c a e
c a e a e e c a be a De e
a a a c e fe c a a
fe e e c a c a e O e P D S e

LEAD 735-3. Leadership, Power, and Authority in Educational Policy and Governance. E a e e
c e f e e c f e c e e e e a
a a e c e e c a a e f a c e
e c e A a e e c a e a a P
e c a a e e c e e e a
e e a e e e e e a a e e c a c
c e A e e a f a c a
f effec c a e b c c De e a
e a a e c e a e a a a a a
e e O e P D e

LEAD 755-1 to 3. Readings in Leadership. Se e c e
e a f a a c e a e c a e a f
E c a a e a e e a e S e Pe
A Ma e P D a c e f
c

LEAD 760-2. Doctoral Research Laboratory in Leadership. S e a c a e a b a e
a e b fe e a e e
e e a c e c be c a e e e e a a
e e a e e e c e a e
a e fe a e e a c e a b a e
e a b e e e a e e e a
e e a c e e a a a e a e
e a c a c O e P D e

LEAD 810-3. Advanced Quantitative Research and Statistics. S e e a a a a a c e e
f e e a a a c e a a e
e a c a fa a e a c a e a e
c e e e e a a SEM a H M a
e e c c a b c c a a a e f
b e e e a c e S e a e e
e a c c e e a c e c f e b e
c e f fe a e e e a c e e O e
P D e Pe EAD e a e

LEAD 815-3. Applications of Qualitative Research.
S e a f a a e e e
a e e a f e e a c e a a a a a
c e a e e a c e c e c
a a a e c e a e a
c e c a a f e a a S e e e a
a a a e e c e f a a e a a a a
O e P D e Pe EAD

LEAD 820-3. Large-Scale Student Assessment. A e
a c e a a e a a a e a e c a e
e a e e e e c e f e a
a a e e e A a e e a e f
a a e c a e e a e e a
e a b e e c e a a a a e e

a e caea e e a ae a
ca e Oe P D e Pe EAD
e ae

LEAD 825-3. Policy Analysis and Evaluation. S e
e aea a e f ca a
e a a Te aa e e e fea a c
a a e e a e e a Te
e a e aea ae e f
ee a e e a af c f c e e
e a e e a e e a a f e
effec e e Oe P D e Pe EAD
e ae

LEAD 830-3. Leadership Excellence in Complex Organizations. A a e a a a e a a
e a ca e ca a a a Ea e
a e e a a a e e f
ce c e a c ca a a a
effec e e l e ae e e a be ee a
a a e S e a e e f
a a e e e a e e a
a a e e e a ae c a Oe
P D e

LEAD 835-3. The Economics of Education. E a e
e e fec c e e ae e e a
be ee a ca a a e ca l e ae a
a a e ec c a e a a a c affec P
e ca a e a e e a ae c a
fe ca a ec c c Oe P D e

LEAD 899-1 to 10. Doctoral Dissertation. Ca a e
bee e f ce fD c a D e a
eac e e e f c a c e f a a f
8 ce Ca ae bec e e
a f ce f e a ce
e e e e c e f e e a
Ca a e a e e a ce e
e e e f e a efe e A a f c e f
D c a D e a be e a e c e e e e e
e e e Oe P D e

LEAD 950-1 to 6. Independent Research in Educational Leadership. I e e e e a f
c f ec c e e c e e a ce fa
fac e be S ec c f e e a a e a
ec e a e e e a c a U e f
e e e e e c e f a a
P e C e f c

LEAD 999-0. Candidate for Degree. U e b
e e e e f c e e e e
e e a c e e e e e c e e a e
e c e e e e a a F e e e f
e a e e e e e c c e e e
a e N c e e a e

SPECIAL EDUCATION

SPED 3001-3. Introduction to Special Education. T
c e e a e e f e c a e c a T e
c e e a e e f e c a e c a
e a e e a f IDEA c e e a
a e f e c e a e T c e e e e
e Pe f a c e Ba e S a a f C a
e a c e f e e e e c e e e P e
Bac c e c e Mee SPED

SPED 3002-3. Professional Seminar in Special Education. Fa a e e fe a
e e c a e c a T e a e a c e a
fe a b e e c
c a a a e e c a fe a
Teac e e a a c a e c a
fe a a a a e e a e
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Mee SPED

SPED 3003-3. Classroom and Instructional Management. T c e e a e e e c e ba e
a a c e f c a a c a
a a e e Tee a a effec e c
a c e e b a a c a be a
a a e e a e e a c c e fa e
be a a a f e e e e c e e
Mee SPED

SPED 3004-3. Self-determination and Transition. T
c e e e e f e e a a e e e
e e a a e a a f e f a a e e
c a a f e Se c e e e
e e a e e a a c e a e
e a e e f e f c a c e a c E a
e f a a e e a e a a e e
fac a e e f e e a f e e e e c e
e e P e SPED a SPED Mee
SPED

SPED 401-3. Special Education Policies and Procedures. E a e c e e c a e c a a a
c e e a c a c e a e e e e
A a a e c e c a a b e a
c e a S e a e c e
c e e e a c a f a a c c e a a e
e e f e c e T e e c e
e a c a e c e e c a a
a c c e f a e c a e c a e c e a b
e e a c c a e e
f e e e c a a e c e a e P e
SPED SPED SPED a SPED

SPED 4010-3. Multisensory Structured Language Education. I c e e c e a f c
f e e a a b e l c e
e e a c b a e a e e e c a a e e
c e e a e c c a b a a c
e e S e a a e a
e a a e a c a c
e P e PRAXIS P ACE E e e a C e
Te Mee SPED

SPED 4011-3. Assessment and Instructional Monitoring. T c e e a e e a a c c e
a a e e a e c c b a e
a e f e e c e e a e a a e a e e
a a e c a e c e f e e c e e c a a c e c
f a e e a E a b e a c e
a c c c a a e e
f e e e e c e e e P e SPED a
SPED Mee SPED

SPED 4012-3. Differentiated Instruction. B
a e a c e e M e a a e SPED
T c c e e a c f f e e a e
c a b e e e e f
e a a G e e c b f S e
a a e a e a a e a c
a c a c e P e SPED
Mee SPED

SPED 4013-2. Direct Instruction Practicum. T
c e f e e a c e a e a a a c c e
effec e c a e a c b e a e a c
a a a c e c c e c e e
a a f c a a e a c e
a e a e c e c a e e
a e a a e a e a c F e e e e c e
e e P e SPED

SPED 4020-3. Significant Support Needs. T c e
e e e e e e e a a e a a
f c a a f e e e e
c e a c a e e a e e e a a
e c a e e S e c e e e e a
e e a a c e a e e a f e f c a c
e e a c f e e e e c e e P e
SPED a SPED Mee SPED

SPED 4021-3. Positive Behavioral Intervention and Support. T c e e a e e b e a
f c a e e c a a a
e c e e c e E a e c a a c e c f
e c a e b e a f c a b e a a
a e e c e c a a c a
PBS e a e e a e f
fa a c e b e a a
f e e e e c e e e P e SPED a
SPED Mee SPED

SPED 4022-3. Consultation and Collaboration. T
c e c c a a a e e e a c e e
a a a c e a e c e e a c c e f
e c a b a e e e a
a c e e c a c e S e
a c c e e e
a a a e c a a e a e c a e
f e e e e c e e e P e
SPED a SPED Mee SPED

SPED 4030-3. Elementary/Secondary Internship.
S e a e e e a a e a e e a c
b a e a c c e a e c a a e S e
e a c e a e a e f e
e c a e e a a e a c c e c
e e UCCS S e c a E c a P a T
e b e c e e a e e a e
a e f SPED P e Te Te Mee
SPED SPED SPED

SPED 4031-4. Elementary/Secondary Student Teaching .S e a e e e a a e a e
e e a c b a e a c c e a e c a a e
S e e a c e a e a e f e
e c a e e a a e a c c e
c e e UCCS e c a e c a a
P e Te Te Te Mee SPED

SPED 443-3. TeachSpecialEd.com: Foundations in Special Education. T c e a c e e f
e c a e c a c e f c e c e a
a c c e P e e c b f a c a c
e a e e a e a c c e a a e e
a e f e e a e a a e c e f b e
e a c e e e e a e b e
Mee CURR

SPED 444-3. TeachSpecialEd.com: Development and Characteristics of Learners with Exceptional Learning Needs. F c e a c e c e
a b e c e a e a a e a
a b e ADHD a b e a a e Teac e
a e a c e c e a b e f e f
c e c e Mee CURR

SPED 446-3. TeachSpecialEd.com: Assessment for Instructional Planning and Decision Making.
F a f a e e a e a e e f e
e e c e f c a a a e c a
e a a e c a c e a e c e e a
e c e e f c e e e f e a e f a c a
c a c a A e e a e e e IEP
e e e Mee CURR

SPED 447-3. TeachSpecialEd.com: Instructional Strategies - Creating Environments that Promote Learning, Appropriate Social Interactions and Behavior. De e e f e e a e
e a a a e f e a c e a c a e a
P e e e e a e e c e f a a c e
b e b e a l e e a e
e f b e b e a a e c e f
c a e a c a b e a Mee
CURR

SPED 448-3. TeachSpecialEd.com: Instructional Strategies – Teaching for Results. P a f
effec e c e c e a f c f c e
l c a a a a e
c e c e c a c e
a a e c e f effec e c
C c ba e a e e c e e a e
c ca f e c e Mee CURR

SPED 456-3. TeachSpecialEd.com: Instructional Strategies– Improving Basic Reading Skills.
E a e e a c be e a a e e
e a e c l a c a b e e a c e
e c e a e a e e a e c a
e Mee CURR

SPED 457-3. TeachSpecialEd.com: Instructional Strategies: Improving Reading Comprehension.
P e a e e f e a c e e
e a e a c e e c e a e a

ee A e e b a e eba e a aa e eabec ee a eac c e e ae e Mee CURR

SPED 458-3. TeachSpecialEd.com: Language and Communication in Diverse Learners. P ace e ee f e ce a ea e e a e c e f c a ffe e ce a e afc a a ea c ca a a e e e e a c ca e a e c ee Teac ec a a e ea e A e a e a e a ea a e c ca e e e a ea e e Mee CURR

SPED 486-3. TeachSpecialEd.com: Collaboration and Instructional Planning in the IEP Process. E a e e e a a ba e IEP acc a ce IDEA e e e l ce e f c ab a a e e c ab a e a ce e effec e e f e be eac e e e e a e e a f IEP Mee CURR 8

SPED 487-3. TeachSpecialEd.com: Professional and Ethical Practices. F c e ee ca a a a c e f e fe E ca e e a e a e e ec a c a e c e a fa e a a fc e e ce a ea ee a e c e e Mee CURR

SPED 491-1 to 4. Workshop. De e a ec c c a e bee e e P e Pe f c

SPED 495-2 to 3. Summer Institutes. P e a ca a a e f a e a ec ca e a e a ce a ce e f a e Pa c a a e e e e ec e e a e a e ac ca a ca a Mee SPED

SPED 498-1 to 4. Special Topics in Special Education. E e e S e ffe De e a ec c c a e bee e e Ma a a a e ee a a eU e fC a a C a S e fa a e a e c a e

SPED 499-1 to 9. Special Topics in Special Education. E e e S e ffe De e a ec c c a e bee e e W a a a e ee a a eU e fC a a C a S

SPED 5001-3. Introduction to Special Education. T c e e a e e f ecae ca T e c ee a e e f ecae ca e a e e a f IDEA c e e a a e fe ce a e T c e e e e e Pe f a ce Ba e Sa a f C a eac e f e e e ece e e P e Bac c ec e Mee SPED

SPED 5002-3. Professional Seminar in Special Education. Fa a e e fe a e ecae ca T ea ea c e a fe a b e e c c a a e ec a fe a Teac e e a aca e ca fe a a a a e ea e e e e P e Bac c ec e Mee SPED

SPED 5003-3. Classroom and Instructional Management. T c e e a ee e ce ba e a ac e f ca a c a a a e e T ee a a effec e c a ce e b aa ca be a a a e e ae e a c c e fa e be a a a f e e e ece e e Mee SPED

SPED 5004-3. Self-determination and Transition. T c e e e ef ee a a ee e e a a e a a f ef a a e e c a a f e Se ce e e e e a e e a ac e a e e a e ef ac e a e ea e f ef ac e ea c E a f a a e e a ea a e e fac a e ef e e a f e e e e ce e e P e SPED a SPED Mee SPED

SPED 5010-3. Multisensory Structured Language Education. I ce e c e a f c f e ea ab e l c e e a c ba e a e e e c a a e e c e ea e c cab a a c e e S e a a e a e a a e ac a c e P e PRAXIS P ACE E e e a C e Te Mee SPED

SPED 5011-3. Assessment and Instructional Monitoring. T c e e a e e a a c ce a a e e a e c c ba e a efe e ce ea e a a e a e e a a e ca e c efe e ce e c a a ce c f a e e a E a be a ce a c c c a a e e f e e e e ce e e P e SPED a SPED Mee SPED

SPED 5012-3. Differentiated Instruction. B a e a c e e M e a a e SPED T c c e e a c ffe e a e c abe e e e f e a a G ee c b f S e a a e a e a a e eac a c ac e P e SPED Mee SPED

SPED 5020-3. Significant Support Needs. T c e e e e e e e a a e a a f c a a f e e e e c e a ca ee a e e e a a ec a e e Se ce e e e e a e e a ac e a e e a e f ef cac e ea c f e e e e ce e e P e SPED a SPED Mee SPED

SPED 5021-3. Positive Behavioral Intervention and Support. T c e e a e e be a f ca e e ca a a e c e ec e E a e c a a ce c f e c a e be a f c a be a a a e e c e ca a ca PBS e a e e a e f fa a c e be a a f e e e e ce e e P e SPED a SPED Mee SPED

SPED 5022-3. Consultation and Collaboration. T c ec ca a a e e e ea c e e a a ac e a ec e e ac ce f e c ab a e e ea ac e e c a c e S e acce a e a a ec e ce e e a a a e c a a e a e c a e f e e e ece e e P e SPED a SPED Mee SPED

SPED 5030-3. Elementary/Secondary Internship. S e a e e e a a e a e e ea c ba e ac ce a e ca a e S e eac e a e a e f e ec a ee a a e ac ce c e e UCCS S ec a E ca P a T e be c e e a e e a e a e f SPED Pe Te Te Mee SPED

SPED 5031-4. Elementary/Secondary Student Teaching. S e a e e e a a e a e e eac ba e ac ce a e ca a e S e eac e a e a e f e eca ee a a e ac ce c e e UCCS ec a e ca a Pe Te Te Mee SPED

SPED 5090-3. Applied Research Project. T e ba c e e f e a a a e be a a a e eac e a a e eac e a ce ae e a c e fa effec e e ca a e Ba e a e e e a e eac ec f e e fe a a e e e S e a e e a e eac a APA f a b c c e e eac a c b a a e e ac a e e e ca e ca fac A a e be e a a e b e e e ac e e c eec f e e e fac e be T c e e e f e MA c e e e e a e e e Pe A a a e c e c e e

SPED 5091-3. Current Topics in Special Education. C e e c ec a e ca e a e c a cac c e ce e e a a a e a e e c e S e e a e a a ea f e e ba e e ca e a e O e a a e e

SPED 533-3. Multiple Intelligence and Gifted Students. F c ec e a a e e e f e ac a e a a c e ec a e e e c a e e f fe c e a e a e e e b e a a ec a e ca ca Ga e Pa c a e a e e ca a e e ac a e e e e effec e a a ea f c fe e T e a e a a e e e a a e a e e f e a e a a e e a e e e ae a e e e ac f fe e

SPED 543-3. TeachSpecialEd.com: Foundations in Special Education. P ace e f ec a e ca c e fc e c e a ac ce P e e c b fa cac e a e e a e acc e a a e e a e fe e a a a e ce f be e ac e e e e a e b e P e Ba c e e e e f c Mee CURR

SPED 544-3. TeachSpecialEd.com: Development and Characteristics of Learners with Exceptional Learning Needs. F c e a c e ce ab e c e a e a a ea ab e ADHD a be a a e Teac e a e a ce e a b e f e f c e ce Mee CURR

SPED 545-3. Literature for Gifted Adolescents. Rea a e a a f e a ef fe a a e e a e ce E a c e a e a e e ec a e a eb a ab fe a e a fe a a e e e Mee CURR

SPED 546-3. TeachSpecialEd.com: Assessment for Instructional Planning and Decision Making. F a fa e e a e a e e f e e ec e f c a a a ec a e a a e ca c e a e c ee a e ce e f c e e e e fe a e a ca ca A e e a e e IEP e e e Mee CURR

SPED 547-3. TeachSpecialEd.com: Instructional Strategies - Creating Environments that Promote Learning, Appropriate Social Interactions, and Behavior. De e e f e e a e a a a e f e a c e ac a e a Pe e e e a e e c e fa a c e b e be a l e e a e e f be be a a e c e f ca e ac a be a Mee CURR

SPED 548-3. TeachSpecialEd.com: Instructional Strategies – Teaching for Results. P a f effec e c e ce a fc f c e l c a a a a a a

e c e c c a c e a a e c e f effec e c a e c e C c ba e a e e c e e a ec ca f e c e Mee CURR

SPED 556-3. TeachSpecialEd.com: Instructional Strategies – Improving Basic Reading Skills. E a e eac be ea a e e ea e c I a cab e eac e e ce a ea ee a e c a e P e Bac e e ee e f c Mee CURR

SPED 557-3. TeachSpecialEd.com: Instructional Strategies - Improving Reading Comprehension. P e a e e f ea c e e e a eac e e ce a ea ee A e e b e e ba e a a e e ab e c e e a eac c e e a e e P e Bac e e ee c a a Mee CURR

SPED 558-3. TeachSpecialEd.com: Language and Communication in Diverse Learners. P ace e ee f e ce a ea e e a e c e f c a ffe e ce a e a f c a a ea c ca a a e e e e c e e a c ca e Teac ec a a e ea e A e a e a e a e a a ec ca e e e a ea e e Mee CURR

SPED 559-3. Arts for the Gifted. E e a a e f a ac e f e e e e a a e a e T e e be a f c a face e a ac eac a c ea e a e e e e e fe e ca e ea e C ea e e c be a ac ca a ca f a a c a ce a a a c ea e a ea e e Mee CURR

SPED 560-2 to 3. Teaching the Gifted and Creative Student. T c c ee e e a ea e f fe c e a a e ce C a ac e c e ca a a e a e a eac a e e a ea e e a e f e fe c e e Mee EPSY

SPED 561-3. Curriculum Strategies for Gifted and Talented. P e a e a c a ec a e effec ea ffe e a c c a f fe ea e A a e fc c e a a e e be e e Pa c a c ea e c c f fe e c e a ea f e c ce Mee CURR

SPED 562-3. Reading and Language Arts for the Gifted. E e a e a e f ea a ac e f fe ea e C e a a e ce ea e b a e e e c ea e a a c a e a c ea e a ea e a c a ea a e e Mee CURR

SPED 563-3. Social Studies and Humanities for the Gifted. A e e eac f ca e a e a e fe a a e e e a e A e a e ca ac ca e e a e Mee CURR

SPED 564-3. Creative Problem Solving and Future Problem Solving for Gifted Learners. C e f a ea c ea be f e e a f e be T e c ec e f c b e e e ca f a e e eac c a e a c c a eac a e e Mee CURR

SPED 569-3. Supervised Practicum – Gifted/Talented Education. P ac c c e a be ba e e ec e e e e ace e eac e e fe e ca

SPED 5740-1. Students Learning English Who have Cognitive Disabilities. T e e f c e e e a a f fe a e e e e a a ec a e ca eac e

effec e e e e ee f E a a e ea e ab e

SPED 586-3. TeachSpecialEd.com: Collaboration and Instructional Planning in the IEP Process. E a e e e a a ba e IEP acc a ce IDEA e e e I ce e f c ab a a e e c ab a e a ce e effec e e f e be eac e e e e a e e a f IEP P e BA c a a Mee CURR 8

SPED 587-3. TeachSpecialEd.com: Professional and Ethical Practices. F c e ee ca a a a c e f e fe E ca e ea e a e e ec a c a e ce a fa e a a f c e e ce a ea ee Mee CURR

SPED 590-3. Seminar: Current Research Issues in Gifted Education. S e e ec e a e ea c ea e e e ca f fe e a a e ea e e ca a e

SPED 591-1 to 4. Workshop. De e a ec c c a e bee e e

SPED 593-1 to 3. Step Up to Writing: Basic, Practical and Helpful Writing Instruction. Pa c a ece e a e S e U W c c b e b S We T a e a a e ea a f a ea a a c e e e

SPED 594-3. Language! Professional Development Course for Reading Educators. U e a a e c c b e b S We A c e e e e e c c f e ac a e a e e e a e ea a e Pa c a be a e e a e a a c e ec e c e e a a cab a ec a c a e a e a a e e a a a e a e a e

SPED 595-2 to 3. Summer Institutes. T e e e a c a a a e f a e a ec ca e a e a ce a ce e f a e Pa c a a e e e e ec e e ea e a e e ac ca a ca a P e Bac e e ee Mee SPED

SPED 598-1 to 4. Special Topics in Special Education. E e e S e ffe De e a ec c c a e bee e e Ma a a a e ee a a e U e f C a a C a S e fa a e a e c a e P e U e a a e e ee

SPED 599-1 to 9. Special Topics in Special Education. E e e S e ffe De e a ec c c a e bee e e W a a a e ee a a e U e f C a a C a S

SPED 945-1 to 4. Independent Study. I e e e e a f c f ec c ee e e a c ee e e ec f a fac e be T e ec c f e e a a ea ec b e e a fac e be T e ee e e ec a a e a a a e a a e C e ea ce e a e e c ee a e e e P e P e f c

SPED 950-1 to 4. Independent Study in Special Education. I e e e e a f c f ec c ee e e a c ee e e ec f a fac e be T e ec c f e e a a ea ec b e e a fac e be T e ee e e ec a a e a a a e a a e C e ca a e e e c e a e e c ee a e e e

SPED 955-1 to 4. Independent Study in Gifted and Talented Education. I e e e e ea c a a fe e ca a be c ee e

e ec f a fac e be T e ec c f e e a a e c a ea ec b e e a fac e be T e ee e e ec a a e a a a e a a e e fac e be S e a e e c e f e c

SPED 999-0. Candidate for Degree. T be e b e e be e ee f c e e e e e c ec ee e e a a f e a e e ee a e C e f a e e

TEACHER EDUCATION

T ED 201-1. Beginning School Field Experience. T c e e a e e f c c c ea a ec e f a ea b c c ac b a f c e e e e e ce a e a F e a a e a e e e T ED a T ED

T ED 300-3. Contemporary American Education. P e a c c e a A e ca e ca f a e e e e a c a e a f e a eac e

T ED 301-3. Early School Diversity Practicum. P e ea c e e e e ce f e a eac e b c c ca T e e e ce f c e e e e b e a a e f e fe a eac e ac ca e e e ce O e e P e T ED c c e

T ED 340-2 TO 6. ESL Professional Development Courses for Special Education Teachers. A e e f ee c e c e Se e S ec a E ca A e e f ES ea e D ab e a De e a C a Re e I a e C c Se e P S ec a e I c ES ea e D ab e a B Pa e C ab a e Mee e Nee f ES ea e Se e De e ea e S a ES ea e D ab e a De e C a P c e c A a e e B f S ec a E ca

T ED 370-3. Introduction to ESL/Multicultural Education. P e c e e e e f ES a c a e ca a I c e a e a f b a ES e ca c a e e e e f b a ES e ca e c e f ES c a c a a e e a a c ea f eac e EP e

T ED 371-3. Materials and Methods in ESL/Multi-Cultural Education. P e a e f c c a a ab e f e ES ca P e e e e a c e ec c e a a e e f eac a a e e G e e e e e a e e eac ES e a a a e ca P e T ED

T ED 372-3. Literacy for Linguistically Different Learners. P e e c e a e e e a e eac ea c a e e ec a a e ea e I c e e e f a e a a e e f eac ea a a a c e a f a fe e ce f ea a e ba e a e P e T ED

T ED 373-3. Assessment: Methods, Materials, and Theories for ELLs. P e a e eac e a e a e a a e ES e a e ba e e I c e a c a a e e e e a a e e a a e a a a f a a f a a c a e e C e b e e ca a a e a e c f a e a a e ea a eac P e T ED

T ED 374-3. Practicum in ESL/Multicultural Education. A e ba e a a ba e c e a e a ea f e ba e a c S e a e ace ca E f e a ea a e c ca I c e e e ace e P e T ED T ED T ED a T ED

T ED 375-3. Second Language Acquisition: Capstone. P e e ab a e f ec a a e ac e e ac S e e e ec a c ce e e ac a ac ca a ca e ac ec a a e G e e a a e ec a a e ac c a a a e e a c a a ec c fac a c b e E cce c P e T ED

T ED 376-3. Curriculum for Multicultural Education. A a e c c a e eca a a e c e a a f e ca f e c a a e e e e a a e

T ED 377-3. Pro-Seminar: Parent and Community Involvement. F c e e a a e e f a e a c e e e c D c e a a e c ce c a a e a c c c a c ce c a e c e c a e a fa e ac e a a Fe ba e a e a e e e

T ED 441-1. Writing in the Elementary School. A c c a ac ce l c e ac ca e e fc e a ac e e a a e a S e b ab a c e a ab e ec ca e a be ee ea a e ea ce

T ED 444-3. Mathematical Connections and Concepts. E a fc e a e a c c c c a c a e e ee e c ce a e e a abe e e a f e c ec be ee a a e a ca c A ca f a e a c e c e H ca bac f ec a c c

T ED 450-1. The Professional Educator. P e e eac e e a e e e f eac e a e a a e e cce f e e e eac fe c f e e e e e e a a ca ce e

T ED 452-3. Educational Psychology. P e eac e e e e f c e e a eac T ef c a e a fc e e e a a a e e a e a ca e ca

T ED 453-1. Social Foundations of Educational Issues. A e e e e a f c ce b fc e e e c ca ca e ce e e e a e a e e a c e e e c e A e ca e a be e e e a e a fe e a e e a e ca l c e a e e f c a e ca a a e f ece e a e c a e e a c e a e a e a fe e a e e

T ED 454-2. Education of Exceptional Children. l c e a e e f e a c e e e ca e a e a a e c f e c e c e e a ca c S e a a e a f ffe e e a e a a a c e e a e e l f a e a e e e a e a e e e f a ca e e a e ce a e Re e e e ca a

T ED 457-3. Elementary Literacy Methods. E e e a e ac a e e cce f e e e a a eac a a e e e a C a M e C e S a a P e Acce a ce TEP

T ED 458-2. Elementary Curriculum Instruction and Classroom Management. P c e f c c e c a e a ac ce a a ba e c c a a e e a a a a ca a a e e a c e P e Acce a ce TEP

T ED 459-1. Elementary Physical and Wellness Education Methods. E a e e c b ca a e e e ca a e e c c T e c e f e c c be e a e a e e a e c e E a be a e a e e e a ac e c e e a e a ac e c c e ca a a e e a e a ce f a e e e P e Acce e TEP e

T ED 460-3. School Experience – Elementary. P e e eac e e e e ce S e e a c a a a c c a e a a a ea c ce e e ce a b c c Fa e be a a e f c a ca a e a a eac a ca e a e a P fe a De e e Sc O e e P e Acce a ce TEP

T ED 462-3. Elementary Reading Methods. A c ea e ac c a ac ce l c e ac ca e e fc e a ac e e a a e a e b ab a c e a ab e ec a e a e ac ea ce

T ED 463-12. Student Teaching – Elementary. E e e a e ca e c a e be f e c fe ca fac be a e a e e e a fe a e e e c f f a eac f a e f ee D e e e a e ec e e e e e e e ce c e e cea e a f e eac ea ce O e e P e TEP e

T ED 464-3. Elementary Mathematics Methods. P e eac e a ab a a ac f eac a e a c a ac a e a a e f a e a a e E a f e b e cea ec ca a c e e c e ce e e a a e eC a c e a a f a

T ED 465-2. Elementary Science Methods. De e ac a eac e a e a a e f eac c e ce e e e a c c e C ea be e a a a e b e e a e a eC a c e a a ce ce Teac e c e e a be f ab a ac e

T ED 466-1. Elementary Social Studies Methods. E e e a ca e c e f c c ec c a e a a a ba e c a a c a a ce c f a ca e a a c

T ED 468-1. Expressive Arts Methods. l ce ec e eac e e f eac e e e e a e e e a ca S e ea ea f e a e e e e a a b ec a e a V a a c a a e a ce e e e e a e c e a e e a a b e e e P e TEP e

T ED 470-1 to 5. School Experience – Secondary. P e e eac e e e e ce S e Teac a e a f a e a ec a c Fa 8 e e a PDS e c e a 8 e e a PDS c e b e a eac O e e P e Acce a ce TEP

T ED 471-1 to 3. Methods for Secondary Education. l ce e f a e a f eac e F c e ec a e f eac c a e e a e e a f eac S e e c a b ec e a a a e e e a e e a e

T ED 472-3. Teaching Reading and Writing in the Content Area. De e e ec a eac e bec e a a e f e e a a ce e a e a bec a e a e a A f a e f f c a eac e a a a c a c e a e a e e e a a e e f c e a e e e e ce a e e a e

T ED 473-12. Student Teaching – Secondary. Sec a e ca e c a e be f e c fe ca fac be a e a ec a fe a e e e c f f a eac f a e f ee D e e e a e ec e e e e e e e ce c e e cea e a f e eac ea ce O e e P e TEP e

T ED 479-3 to 4. Secondary Curriculum, Instruction and Evaluation. S e e e a e a f ec e c c a e ace a e a c a e a c e fc c e c a a ba e e a a Me fa e e e e a f e a a c eac be a e e

T ED 480-3. English as a Second Language for Educators. P e e c e a e e e e e a e e eac e ac a c e a e a c a a ca e e e e O e e P e C e a c e a

T ED 482-1 to 4. Workshop in Educational Development. C e e a e e ca l e f eece c A ace e e b c a a a a e e ee a a

T ED 483-1 to 4. Instructional Workshop. C e c a a ace a ec e e F c ca a ca e f eece c

T ED 491-3. Secondary English Methods. G e a e e f c a e e a a e a E a e e e e e eac a e e a a e e C a e c e a a P e O e a e a a c a TEP

T ED 492-3. Secondary Math Methods. G e a e e f c a e e a a e a a a e e e e eac a e e a a e e C a M e C e S a a P e O e a e a a c a TEP

T ED 493-3. Secondary Science Methods. G e a e e f c a e e a a e a ce c e a e e e eac a e e a a e e C a M e C e S a a P e O e e a e a a c a TEP

T ED 494-3. Secondary Social Studies Methods. G e a e e f c a e e a a e a c a e a e e e e eac a e e a a e e C a e c e a a P e O e a e a a c a TEP

T ED 495-3. Secondary Spanish Methods. G e a e e f c a e e a a e a S a a e e e e eac a e e a a e e C a M e C e S a a P e O e a e a c a TEP

T ED 500-3. Contemporary American Education. P e a c A e ca e ca a f a e e e e a c a e a f e a eac e

T ED 501-3. Early School Diversity Practicum. P e ea c e e e e ce a acc e f e a eac e b c c ca F c e e e e e b e a a e f e fe a eac e ac ca e e e ce O e a a e e P e TED c c e

T ED 530-1 to 3. Special Topics in Teacher Education. T c ee e eca c eac e e ca C eca be e a e ee a

T ED 541-1. Writing in the Elementary School. A c c a ac ce l c e ac ca e e fc e a ac e e a a e a S e b ab a c e a ab e ec ca e a be ee ea a e ea ce

T ED 552-3. Educational Psychology. P e eac e e e f c eea eac T efc aea fc e e e a a ea e e a e a ca eca A a e e e f TED e

T ED 557-3. Elementary Literacy Methods. E e e a e ac a e e cce f e e ea a eac a a e e e a C a M e C e Sa a A a e e e f TED e P e Acce a ce TEP

T ED 558-2. Elementary Curriculum, Instruction, and Classroom Management. P c e f c c e c a e a ac ce a a bae c c a a e e a a a ca aae e a c e A a e e e f TED 8 e P e Acce a ce TEP

T ED 560-3. School Experience – Elementary. P e e eac e e e e ce S e e a c a a a c c a e a a a ea c ce e e ce a b c c Fa e b e a a e f c a ca a e a a eac a caeaa a e P fe a De e e Sc O e a a e e P e Acce a ce TEP

T ED 562-3. Elementary Reading Methods. A c ea e ac c a ac ce I c e ac ca e e fc e a ac e e a a ae a e b ab a c e a ab e ea a e ac ea ce A a e e e f TED e P e Acce a ce TEP

T ED 563-12. Student Teaching – Elementary. E e e a e ca e c a e be f e c fe ca fac be a e a ee e a fe a e e e c f f a eac f a e f ee D e e e a e ec e e e e e e c e e c a e a f e eac ea ce O e a a e e P e TEP e

T ED 564-3. Elementary Mathematics Methods. P e eac e a ab a a ac f eac a e a c a ac a e a a e f a e a a e E a f e be cea e c ca a c e e c e ce e a a e eC a c e a a f a P e Acce a ce TEP

T ED 565-2. Elementary Science Methods. De e ac a eac e a e a a e f eac ce ce ee e a c c e C e a be e a a a e b e e a e a eC a c e a a ce ce Teac e c e e a be f ab a ac e P e Acce a ce TEP

T ED 566-1. Elementary Social Studies Methods. E e e a ca e c e f c c ec c a e a a a ba e c a a c a ace c f a ca e a a c A a e e e f TED e P e Acce a ce TEP

T ED 570-1 to 5. School Experience – Secondary. P e e eac e e e e ce S e Teac a e a f a ea ec a c Fa 8 ee a PDS e c ea 8 ee a PDS c e b e a eac O e a a e e P e Acce a ce TEP

T ED 571-1 to 3. Methods for Secondary Education. I ce e f a e a f eac e F c e ec a e f eac c a e e a e e a f eac S e e c a b ec e a a a e e a e e a e A a e e e f TED e P e Acce a ce TEP

T ED 572-3. Teaching Reading and Writing in the Content Area. De e e ec a eac e bec e a a e f e ea a ce e a e a b ec a e a e a Afa e f f c a eac ea a a a c a c e a ea e e e a a e e f c ea e e e e ce a e e e A a e e e f TED e P e Acce a ce TEP

T ED 573-12. Student Teaching – Secondary. Sec a e ca e c a e be f e c fe ca fac be a e a ec a fe a e e e c f f a eac f a e f ee D e e e a e ec e e e e c e e c a e a f e eac ea ce O e a a e e P e TEP e

T ED 579-3 to 4. Secondary Curriculum, Instruction and Evaluation. S e e e a e a f e c e c c a e ace a ea c a e a c e fc c e c a a bae e a a Me fa e e e a f e a a c eac be a e e A a e e e f TED e P e Acce a ce TEP

T ED 580-3. English as a Second Language for Educators. P e e c e a e e e e e a e a e eac eac a c e a e a c a a ca e e e O e a a e e P e C e a c e a

T ED 583-1. PDS Workshop. P e e e e ce a c e a a e e e c e a e e ca fP fe a De e e Sc e f e e De e f e c a a c ca eac e a e

T ED 591-3. Secondary English Methods. G e a e e f c a e e a a e a E a e e e e eac a e e a a e e eC a M e C e Sa a P e Acce a ce TEP

T ED 592-3. Secondary Math Methods. G e a e e f c a e e a a e a a a e e e e eac a e e a a e e eC a M e C e Sa a P e Acce a ce TEP

T ED 593-3. Secondary Science Methods. G e a e e f c a e e a a e a ce ce a e e e e eac a e e a a e e eC a M e C e Sa a P e Acce a ce TEP

T ED 594-3. Secondary Social Studies Methods. G e a e e f c a e e a a e a ca e a e e e e eac a e e a a e e eC a e c e a a P e Acce a ce TEP

T ED 595-3. Secondary Spanish Methods. G e a e e f c a e e a a e a Sa a e e e e eac a e e a a e e eC a M e C e Sa a P e Acce a ce TEP

T ED 940-1 to 6. Independent Study. I e e e e a f c f ec c e e e a e a c e e e e ec fa fac e be Te ec c f e e a a a e c a e a ec b e e a fac e be Te e e e e ca a e a a a e a a e efac e be S e a e e c e f e c

T ED 950-1 to 6. Independent Study in T ED. I e e e e a f c f ec c e e e a e a c e e e e ec fa fac e be Sec c a e a ec b e a fac e be S e a e c e f c

c P e C e a c e a

T ED 583-1. PDS Workshop. P e e e e ce a c e a a e e e c e a e e ca fP fe a De e e Sc e f e e De e f e c a a c ca eac e a e

T ED 591-3. Secondary English Methods. G e a e e f c a e e a a e a E a e e e e eac a e e a a e e eC a M e C e Sa a P e Acce a ce TEP

T ED 592-3. Secondary Math Methods. G e a e e f c a e e a a e a a a e e e e eac a e e a a e e eC a M e C e Sa a P e Acce a ce TEP

T ED 593-3. Secondary Science Methods. G e a e e f c a e e a a e a ce ce a e e e e eac a e e a a e e eC a M e C e Sa a P e Acce a ce TEP

T ED 594-3. Secondary Social Studies Methods. G e a e e f c a e e a a e a ca e a e e e e eac a e e a a e e eC a e c e a a P e Acce a ce TEP

T ED 595-3. Secondary Spanish Methods. G e a e e f c a e e a a e a Sa a e e e e eac a e e a a e e eC a M e C e Sa a P e Acce a ce TEP

T ED 940-1 to 6. Independent Study. I e e e e a f c f ec c e e e a e a c e e e e ec fa fac e be Te ec c f e e a a a e c a e a ec b e e a fac e be Te e e e e ca a e a a a e a a e efac e be S e a e e c e f e c

T ED 950-1 to 6. Independent Study in T ED. I e e e e a f c f ec c e e e a e a c e e e e ec fa fac e be Sec c a e a ec b e a fac e be S e a e c e f c

COLLEGE OF ENGINEERING AND APPLIED SCIENCE COURSES

COMPUTER SCIENCE

C S 100-3. Computer Literacy. T e e fc e ce a c a BASIC T e ce ec ce a ea fa c c e c e ea ca f ae e e c a ce ea ee acc a aaba e e T e a ac fc ce c ee T e ee e a c e ffee b ec e ce ce e a e T c e f CS e ee a Pe H c a eba

C S 101-1 to 3. Topics in Computer Science. C e a e ec aea fc e ee c e ce ce A ec ec a ca e e a ae ec e eea e f eec ece Pe c c e

C S 103-1. Introduction to Microsoft Word. I c ce a e ec c f e Mc f W f W e S e ea ceae f a a e c e W

C S 104-1. Introduction to Microsoft Excel. I c ea ee a e ec c f eMc f Ece f W e S e ea ceae e a ea ee Ece

C S 105-1 to 3. Topics in Computer Science. C e a e ec aea fc e ee c e ce ce A ec ec a ca e e a ae ec e eea e f eec ece Pe l c c e

C S 106-1 to 3. Topics in Computer Science. C e a e ec aea fc e ee c e ce ce A ec ec a ca e e a ae ec e eea e f eec ece Pe l c c e

C S 107-3. Introduction to Programming in Visual BASIC for Non-Majors. I c a ba c e a e e a a e face e e Mc f W Pe H c a eba

C S 108-3. Software Tools for Animation, Graphics and Web Design for Non-Majors. A c eb e e Mac e aDea ea e cea a e a c Mac e aFe cea a a Mac e aFa e a f a c a e eb a e a ba c e c ce N f CS e ee a Pe S e be fa a ba cc e c ce

C S 110-2. Problem Solving through Game Creation. A c c e ac b e be ec e c e a e e a e e a ce e e ba c a a c e ce cec ce S e e e e a ec e a e a a N a e e

C S 115-3. Principles of Computer Science. I c a e a c e ce cec ce De e e f c e be De e ce c f a a e a a a e a ce e c ce fab ac be l c e ba cc ce fc e e a e e c eb e e a e e Pe H c a eb a a fa a c e c ce c e ea a e e

C S 145-3. Data Structures and Algorithms. C ce f a a e a a ab ac a a a c e l e a e e e a ff a e a a a e ea a a c e ac e e e a a c e a a c a a e Seac abe a a ab ac ea ea c a a a b a ea c a a a ee B a ee b a ee b a ea c ee Pe CS e a e

C S 201-1 to 3. Topics in Computer Science. C e a e ec aea fc e ee c e ce ce A ec ec a ca e e a ae ec e eea e f eec e ce Pe C e f c

C S 203-1 to 3. Topics in Computer Science. C e a e ec aea fc e ee c e ce ce A ec ec a ca e e a ae ec e eea e f eec e ce Pe C e f c

C S 205-1 to 3. Topics in Computer Science. C e a e ec aea fc e ee c e ce ce A ec ec a ca e e a ae ec e eea e f eec e ce Pe C e f c

C S 206-3. Programming with C. A c e eC a a a ef e a e ce e e e eea a e Pe CS

C S 207-1 to 3. Topics in Computer Science. C e a e ec aea fc e ee c e ce ce A ec ec a ca e e a ae ec e eea e f eec e ce Pe C e f c

C S 208-2. Programming with UNIX. A c e UNIX ea e a e a e e e e fCa c a e a Pe CS

C S 212-1 to 3. Topics in Computer Science. C e a e ec aea fc e ee c e ce ce A ec ec a ca e e a ae ec e eea e f eec e ce Pe C e f c

C S 216-3. Computer Organization and Assembly Language Programming. P e a c ec ce fc e ac ec e f c a c e a c ea ec l e e a e a e ec a c f f a a fe a c a c e e A c e a e b c a ec e e e e c c a e e a e a e a a b a a a e e a e e e a a e a e a e a e b ce Pe CS a CS

C S 301-3. Web Programming. A c e a a a e a ec e a ca e e Web l c e a e XHTM ca ca e e Ja a Sc a c XHTM c e a e XM Pe a e CGI a Ja a Se e a eb acce a aba e Pe CS

C S 302-3. Advanced Object Technology Using C#/.NET. C ca c c c e e a e ea e e a GUI c e Ob e e a e a a c ec e e c a a e e e a c c e UM e e e a ab ac c a e e face bec e e c e e a efac Pe CS

C S 303-1 to 3. Selected Topics in Computer Science. T ec e f e ec e a f e e a e ec ea ea fc e e e C e Sce ce A ec e c a c a e e a a e ec e e e a e f ec ca e ec e ce Pe l c c e

C S 304-3. Advanced Object Technology using JAVA. U e a a a ce bec e e c c e a e e f a e JAVA T c c e bea ca c c e ce a ea a c c e a a c ec e e a e e e c e a e ec A OO c e b e e e ec JAVA Pe CS

C S 305-1. Social and Ethical Implications of Computing. T ca c e ec e c e ca ca ca e a a ec ca ec f ea ca fc e Eac e e ece e e a c e c ac e a c a e c a ea e e a W e a e a be e e Pe CS c c e

C S 306-3. Object-Oriented Programming Using C++. T e ca a f c e a e ea e f a e a f bec e e a a a c e c a a a e e e c e eC a a e a e e a e a e e f a e e e e bec Pe CS a CS 8

C S 316-3. Concepts of Programming Languages. E f e ce ac ce f a a a e e c b a a e a c a a e ab ac a a e c c e b a c c e c a e ce a Pe CS CS a e e CS CS

C S 330-3. Software Engineering. S f a e e e e e Te f a e fec ce E a e e e e e a e a f a e e e Ac e e c e e e a ac ca a ca f e f a e e e e c e Pe CS 8a e e CS CS

C S 335-3. Introduction to Game Design and Development. I c e a e ec a c fee bac e a e a f a e a a e a a c a ca e e ce Da D a c a a a a a a S e c e e a ea ec e e ac e e a e Pe CS CS a PES

C S 401-1 to 3. Selected Topics in Computer Science. T ec e f e ec e a f e e a e ec ea ea fc e e e C e Sce ce A ec e c a c a e e a a e ec e e e a e f e ec ece Pe l c c e

C S 402-1 to 3. Selected Topics in Computer Science. T ec e f e ec e a f e e a e ec ea ea fc e e e C e Sce ce A ec e c a c a e e a a e ec e e e a e f e ec ece Pe l c c e

C S 403-1 to 3. Selected Topics in Computer Science. T ec e f e ec e a f e e a e ec ea ea fc e e e C e Sce ce A ec e c a c a e e a a e ec e e e a e f e ec ece Pe l c c e

C S 404-1 to 3. Selected Topics in Computer Science. Se ece c c e ce ce T ec e f e e c e a f e e a e ec ea ea fc e e e c e ce ce A e c e c a c a e e a a e e c e e e a e f e ec ece Pe l c c e

C S 405-1 to 3. Selected Topics in Computer Science. T ec e f e ec e a f e e a e ec ea ea fc e e e C e Sce ce A ec e c a c a e e a a e ec e e e a e f e ec ece Pe l c c e

C S 406-1 to 3. Selected Topics in Computer Science. T ec e f e ec e a f e e a e ec ea ea fc e e e C e Sce ce A ec e c a c a e e a a e ec e e e a e f e ec ece Pe l c c e

C S 407-1 to 3. Selected Topics in Computer Science. T ec e f e ec e a f e e a e ec ea ea fc e e e C e Sce ce A ec e c a c a e e a a e ec e e e a e f e ec ece Pe l c c e

C S 408-1 to 3. Selected Topics in Computer Science. T ec e f e ec e a f e e a e ec ea ea fc e e e C e Sce ce A ec e c a c a e e

a a e ec e e e a e f e ec e c e
Pe l c c e

C S 409-1 to 3. Selected Topics in Computer Science. T e c e f e e c e a f e e a e e c e a e a e a f c e e e C e Sc e c e A e c e c a c a e e a a e e c e e e a e f e e c e c e Pe l c c e

C S 410-3. Compiler Design I. U e e a e e c e f c e e c a a a a b a a e a a e a a e e a e c e a c e e e e a e c e e e a Pe CS C S a CS Mee CS

C S 420-3. Computer Architecture I. C e c e f a e a f c e e c e c e a e a e e a a c e e a c e e a a e e a c e a e f e e a e a e c e e a c e Pe CS Mee CS

C S 422-3. Computer Networks. C e f c e e b a c e a c c c e a c e a c c a a e e c e e a a e e a e e a e f a T c c e l e e c a c a e a e b a c TCP IP a c e c a c e c a a f e c e a e a a e e Pe CS a MATH

C S 435-3. Advanced Game Design and Development. I c e a a c e D a c a a a a a c e a e a e e e a c a e a e a e a a e e a e S e c e e a e a e c e e a c e e a e Pe CS a CS 8 Mee CS 8

C S 436-1. Game Design and Development Capstone Project. A Ca e P e c c e c e a c a e e a e e a c e e a e Eac e a e e e c e a a c a e e a e c a e a e a a e a a Pe CS

C S 442-3. Database Systems I. C e c e e e a a a b a e c c e a e a a a b a e e e c e c e T e c e c e ERa R a a e Ra e b a SQ a a a e a e e a a b a e e a e c Pe CS Mee CS

C S 450-2. Operating Systems I. I c e c c e e a a a f e a e De c b e e a e c e e a a e e e c e a a a a e e e c a c e e a c c a a a e e a e e a e e a Pe CS CS 8 a CS Mee CS

C S 460-3. Numerical Computing. A f e f e a e a a a a a ffe e a e a e f e a e a a ffe e a e a a ea a e Pe CS MATH a MATH Mee CS

C S 470-3. Computability, Automata and Formal Languages. F e a a a a e a e e c e f e e a a c e f e e a a e a a a T a c e e c a b e C e a c f f a a a e c a a c e a a c a b e b e Pe MATH a MATH Mee CS

C S 472-3. Design and Analysis of Algorithms. De e e e a c e e a e a c a c a e a a c e a c e e a e a a f a a e f a a f e a c a a a a T a c a b c a P a NP NP c e e b e Pe CS a MATH Mee C S

C S 480-3. Computer Graphics. F a e a a e a f e a e c e a c a a e f a e a a c e a e a c a e e e f a c e a a a f a c a b e c A b e f e a G S e a e a e e e e a a c e e e a e a c e e a c e B a c a a c a e a e e c e e f e e R e e a a e e a e a f a a a e a c a c e e e a Pe CS CS a MATH Mee CS 8

C S 482-3. Functional and Logical Programming for Artificial Intelligence. C e f c e f c a a ISP a c a a P P a e c a e e a e a a a e c f a c a e e c e Pe CS c e f c

C S 484-3. Bioinformatics and Computational Biology. R e f e c a a c e b b f a c a a b a e a e e e c e a e a Ma c a H e Ma e e a e e e c e e e c e c e e c Pe MATH 8 CS BIO 8 e f c

C S 501-3. Intensive Computer Science for Graduate Students. I e e f e c e a a e e e e e a e e e c e C e c ce CS a CS Ca b e f e e c e a f e a c e e e f MS C e Sc e c e D e c a MS BS e e e N e e a a e Pe e e f e e a a a e

C S 502-1 to 3. Selected Topics in Computer Science. T c a

C S 503-1 to 3. Selected Topics in Computer Science. T c a

C S 505-1 to 3. Selected Topics in Computer Science. T c a

C S 506-1 to 3. Selected Topics in Computer Science. T c a

C S 507-1 to 3. Selected Topics in Computer Science. T c a

C S 508-1 to 3. Selected Topics in Computer Science. T c a

C S 509-1 to 3. Selected Topics in Computer Science. T c a

C S 510-3. Compiler Design. U e e a e e c e f c e e c a a a a b a a e a a e e a e c e a c e e e a e e a e c e e a Pe CS CS a CS Mee CS

C S 520-3. Computer Architecture I. C e c e f a e a f c e e c e c e a e a e e a a c e e a e a c e e a a e f e e a e e c e a e e a e c e e a c e Pe CS Mee CS

C S 522-3. Computer Communication. T e b e c f a f a b e e c e e c b e e a T e e e e c e a e a a e a e a c e C c a e f e a c e b a e c e e a c e c e e b e e M a e a b e e e a e c e c e a a e e e a e a a f c e T e a c c e b e e a e a e a e e e c c a e e Pe CS a CS

C S 525-3. Multimedia Computing and Communications. De c e f e a a a c c a e l c e e e f a c e a c a a c e c f c e a e c e e e e a c e a c e c e e a e c e c e e a e a e c e f e c a e a c e e a a a a c a f a e Pe G a a e a c e

C S 526-3. Advanced Internet and Web Systems. A a c e c l e e a WWW e TCP IP e e e e c e c e b e e e c e e b e a a e e a b a a c e b e c a e e c c e c e Pe CS CS e f c

C S 531-3. Software Requirements Analysis and Specification. Tec e a f e e e a a a e e e e c a Re e e a a e a a S e c a c e e e a c e c Tea e c e a a a e c a f a a f a e e Pe CS e a e e e f a e a a a e a a e a c e e c e

C S 532-3. Software Design. C e a a e f e e a f e f e e a a a e a b e f a e e De a a e a c a e e e e a a Da a a b a c a a c a e Da a e a a a Ob e c e e e D c e a Tea e c e e f a f a e e Pe CS

C S 533-3. Formal Methods of Software Systems Engineering. E e e f c e e a e a c F a e c a f e c f a e f e c e c e e a b a e f c e c f f a e e Sa e a e a e e c e f e e a a c a e e A e H a e a a e a e e c Sa e a c e a e b a c a e a a e c a e c e Pe CS e a e e e f a e a a a e a e e e c e

C S 534-3. Software Maintenance. D c a a c a f c e c e a a e e f e c e a e e e f a e a e a c e e c e a Rea e c c a f a e e a a e e e e e e e e e e e e a c a a a e e a e e a e A a e c e e a a a e f a e e Pe e e f e a a a e c e e c e CS e a e

C S 535-3. Software Project Management. P a c e c f e c Mea e e c c c e c f a e Ma a e e a e e Effec e e a e f c e c f f a e e e e e e D b e f a e e e e Q a c a a a a c c e Pe e e f e a NG a a e a a c e a a a a a c e e c e

C S 536-3. Software Product Assurance. P c e e c e a f c a f a e e Te a f f c e f c e f a e c a a c e c e e Te e c a f c a e a a e f f a e e e c e Pe CS

C S 537-3. Human-Computer Interfaces. Tec e a f e a a e e e a a e f a c e e face S e c a c c a a fac a a a b e b e Te e c Pe CS a CS

C S 538-3. Object-Oriented Software Development P c e f b e c e e b e b e c e e a a a b e c e e e De e e f c a e a c e e f a e a c e c e a f e e e e e c Pe C S c e f c

C S 539-3. Software Systems Engineering Project Laboratory. S e a c ae a ec e e e e e a e a ce fa f ae e e e f e e a b a e D e c e e e e a a ec ca e e e a e a a a ce c a a a e e a c e a P ec c e f e e a f e ce S e a e e a ae ba e e ec a a a e e a e c b e a c e e Pe CS CS CS CS a CS

C S 542-3. Database Systems I. C e ce e e a a aba e c ce a e a a aba e e ec T e c ec e ER a R a a e R a eb a SQ a a a e a e e a a aba e e a ec Pe C S Mee C S

C S 543-3. Database Systems II. C e c e a a ce a aba e c c a ac a a e e a a e a b e a aba e e e a aba e ec a a b ec a b ec e a a a aba e e a a a a a a e e a e c e e eac c e Pe CS C S

C S 550-3. Operating Systems I. I ce c ce e a a f ea e De c be e a e ce e a a e e ce a ca a a a e e ec c a ce e a c ca a a e ea e e a e e a Pe CS CS 8 a CS Mee CS

C S 551-3. Distributed Systems. C e a e e f e c e a ac ce e e b e e b I e e ba e a e e De c be a e e e e ce c ca e e ca b e e e e ca a a ba a c b e a e e a b e e a e Pe CS

C S 555-3. Computer Systems Performance Evaluation. Pe ec e f e f a ce e a a ea e e ec e a ae f a e a a e a ec e a a ca ec e a c a a ce a e e ec e e f a ce ac e f a ce e c e e a e a c be e a a Pe CS

C S 560-3. Numerical Computing. A f e f ea e a e a a a a ffe e a e a e f ea e a ffe e a e a a ea a e Pe CS MATH a MATH Mee CS

C S 567-3. Discrete Simulation I. E a e c ce a e f c e e e e a C a e a e e D c e a ca e c a be e e a a a ce e a a f a e ca a a a f e a a a De c be ea e e fa a c e e e e a a a e D c e a e e f e a a f a Pe CS a MATH 8

C S 570-3. Computability, Automata, and Formal Languages. F e a a a a e a e e c e f ee a a c e f ee a a e a a a a T ac e ec ab e C H e ac f F a a a e c a a c e a ac ab e be Pe MATH a MATH Mee CS

C S 571-3. Evolutionary Computation. I c e a c a e a e e c a I c e e a e e e a a ce a a e f c a ca e c e e eac c e a a a e a ca e Pe CS a MATH 8

C S 572-3. Design and Analysis of Algorithms. De e e ea c e e a e eac a c a ea ace c e ea e a a fa e f a a f eac a a a a T ac ab ca Pa NP NP c e e be Pe CS a MATH Mee C S

C S 575-3. Computational Geometry. C a a c e f e e c be e f a e fa a fa S e e e c eac e ec be a c a f e ca e a f a e a a Pac ca a ca f c ce e e e ca be f c e a c a a fa a a a a c e a V SI e e Pe CS CS 8 8 c c e

C S 577-3. Computer Graphics Animation & Scientific Visualization Techniques. A a ba c c e ca ba e e a f a a c a a e f a c a a ee ca e Sc e c a a e e f a a ec e a ca Pe CS 8 8

C S 578-3. Advanced 3D Games and Digital Content Creation. P a a c a ace a bec C ce ae c e ec a a a ce c a c a VR ec T ca c c e ae a c e e a ca e ec a a a ec e c e ce e a c c a c a e ba e e e a e a e ec a a ce fea e f SIGGRAPH a e Pe C S 8 8 c c e Mee CS

C S 579-3. Wearable Computing and Complex Systems. Wea ab e c a e a c e e e eac a a a ea f e eac T c e c e c ce a e ae ec e a a e f ea e W e a e ce e ba f e a e e e e c e a c a a ea e eac Pe CS 8 8 c e f c

C S 580-3. Computer Graphics. F a e a a ea f e a e c e a c a a e f a e a a c e a e a ca e e e face a a a f a ca bec A be f e e a G S ea e a e e e e a ace e e e a e a a ce e Ba c a a c a e ae ee c e e e f e e Re e a a e e a ea fa a a e a c a c e e e a Pe CS CS a MATH Mee CS 8

C S 581-3. Topics in Computer Graphics. E a e e a e a ca a ca e e ce ea c ee e a a e T c c e e ec e e e face e a a fa ca a a ac Pe CS 8 8

C S 582-3. Artificial Intelligence. C ec e e f a fa ca e e ce eac ec e e e cae cac a e e e e e a A c e a a ce c c a eec a a a a a e ce a ea Pe CS CS 8 c c e f a ae e

C S 583-3. Artificial Intelligence II. C e ea a eec f AI c a a a a a e ce c e b c e e e a ea C e e eac c a bec ee S e a ea a a a e f e c ce Pe CS 8 8 c c e

C S 584-3. Computer Vision. Re e e a a a a f a ae F e a a f a e e a ce e ec e a a a fe e c a e e a ce e a e e e a b a e e e a e e ce a e ec a a ca b c Pe MATH c e f c Mee MATH 8

C S 587-3. Introduction to Artificial Neural Networks. T ec e c e ba c e a e ac ec e a ea a Pac ca a ca be e e S e ea e e e a a e e a ac ec e Pe MATH

C S 589-3. Computational Linguistics. A ac e ac c ce f a a a a e e e a c e ea a ac e ac f c e a e e f a a a a e e a a e e a f a a a a e e e Pe CS 8 c e f c

C S 591-3. Fundamentals of Computer/Network Security. I c e fc e a e ec f e e f f a a fa e T c c e f a e ea e ab e a efe e ec a c a a e ca a a e P I e c Pe CS a MATH

C S 592-3. Applied Cryptography for Secure Communication. Ba c ec e c e c ca ca cac a ca e c e c a b c e c a a e ca a a a e Pe MATH MATH 8 CS CS c c e

C S 601-3. Technological Transfer, Patents and IP in Engineering. Tec ca a fe ce c c e e c e ca a a f f IP ec c c a a e S e ea e ae a ca Pe Pe f c

C S 622-3. Distributed Networks. Dea c e c ca e e ac e c e ca a ea e a e e e e e ec ec OSI efe e ce e a e e e e f c ca f a e Pe C S

C S 630-3. Topics in Software Systems Engineering. A a ce c a c e e eac e f a e e ee P be c c e f a ee ee e e e e e e e f a e e c c a a a e e a e a ce f a ec a a a b e f a e Pe CS CS

C S 638-3. The Design and Modeling of Class Interfaces and Contracts. Pa a e e e a e ec f e e a c f a ca a e a e e a e T e BON e e e e Pe C S 8

C S 643-3. Data Mining. C e a a a e O AP a ca e c e a a ca ca a e c c e a a a ca a e a a Pe CS

C S 677-3. Virtual Reality and Computer-Human Interaction. F c e e ca e a e f f e ac be ee a a ac e c ea a a a ca T e ba c ea a a e ce be c e Se e a a a ce a e a ea bec ee S e f e e ea be e e e a e ec Pe CS 8 C S c e f c

C S 687-3. Advanced Studies in Artificial Neural Networks. A e eac e a ea c e a e e e a a ca fa ca e a e Pe CS 8

C S 691-3. Advanced System Security Design. C e a a ce c e a e ec c e a e e e ec ac a e e e ec a a a e a OS f ec a ee e ec Pe CS CS c e

C S 692-3. Advanced Topics in Network Security. C e a a ce c e ec c a e be PGP IPSec VPN SS SET S a ca S e a a Wa e a a B e c E c

Re ea c a e a be c e Pe CS

C S 700-1 to 6. Masters Thesis.

C S 701-1 to 3. Masters Project.

C S 702-1 to 3. Graduate Internship. E ca a ea a e a cae ac e ce ce e eae e a ae e M bee e aCS a ae a a aefac

C S 800-1 to 10. PhD Dissertation. P e Acce a ce a

C S 920-1 to 3. Independent Study in Computer Science Undergraduate.

C S 999-0. Candidate for Degree.

ELECTRICAL AND COMPUTER ENGINEERING

ECE 1001-3. Introduction to Robotics. A c c e ee f a a aea e e f b T c c eba c e e f e ea e ec a c c e e a ce ea c b EGO be e e e e Mee ENGR

ECE 1021-3. Computer-Based Modeling and Methods of Engineering. Me f e ee be ce F a e a fea e f e C a a aeae e e e a e ae a a e fe ee e a e a a ca P e a abe a c e be e e a ca Pe MATH a ECE

ECE 1411-2. Logic Circuits I. F a e a fD a Eec c N be S e cGa e B ea A eba C b a a C c De B a A F S fRe e a C e cFa e a S ec ca l c c ce Mee ENGR

ECE 2050-3. Introduction to Physical Electronics. A c c e ef a e a e e f a e a a e c c e a a f a bac e e ce c a ec T c c e C a S c e Q a T e f S a Ta a E ce Ca e Se c c C e MATH a PES

ECE 2205-4. Circuits and Systems I. M e a a a faa c c a ea e c ff c e a a e a e e a e a a a fe f c e ffe e a e a f a ec e R C c c a a e a ea a e e e a c e e e a e e a e a e a e a a e e el c c c a Pe ECE

ECE 2210-3. Circuit Analysis I. M e a a a fe e c ca e ce a c c c e a a a e Ta e a ea a e e e ca ca ffe e a e a e e a e e e Pe MATH a ECE C e MATH a PES

ECE 2411-2. Logic Circuits II. C e e e e a c c e a e e e a T c c e Mea M e ac e e Saeec a e a Ve HD e f c c c Re e Ta fe e e M e f a e a e Pe ECE

ECE 2610-4. Introduction to Signals and Systems. Ma e a ca a e e e a f a a e ec e e e a e e e a f a b a e a e c e e e c a a ce a a e e e a f c e a a ea e a a e fe e c e e c e F e a f a a ca e a a MAT AB ba c a ca a a e l c e ec e e e a a ab a a e e Pe MATH a ECE

ECE 3020-3. Semiconductor Devices I. A c e c c e c e e e c e e c c e c e T e c e b e c e e a e a f e f a e a ca c e a c c e e e a a e f e a e c c e c e Pe ECE a ECE ECE

ECE 3110-3. Electromagnetic Fields I. S a c e e c c a a e c e a a P a a a ce e a ea e e c c c e e f e a e e c c c e fe a e c a e a b a a e b e f a c e e a e e c c a a e c e a Ma e e a a a e e a Rea be e e a c c e Pe ECE ECE

ECE 3120-3. Electromagnetic Fields II. E e c a e c a e a a e e c ca c c e a e a e e a a e e a e a e a a e a a a a f a f a e a e De c e a fe e c a e c e Pe ECE a MATH

ECE 3205-4. Circuits and Systems II. A c a f c c e ECE A a a e a e e e a c e e F e e e a a a c e a f C e a e e fac e a a e a a e l c e e c e e a a a b a a e Pe ECE

ECE 3210-3. Electronics I. T e a ca f e c c e c e e e fe e c c c T c c e e c c a a ca fe e c a a e e a c e Pe ECE ECE

ECE 3220-3. Electronics II. T a e e c c e a fe e c e a e a e e fe e c e e fa e fee bac e a a a e a Pe ECE ECE a ECE

ECE 3230-1. Electronics Laboratory I. De a e e a f e e a e b a c a c e effec a a MOSFETS I a ba c c c e e a a e a be e f e C e ECE

ECE 3240-1. Electronics Laboratory II. C a f ECE De f ffe e a a e c e e c e a a ffe e c e e fe e c c e a e c e fee bac a e e e a e c a a e b e e Pe ECE C e ECE

ECE 3420-1. Microprocessor Systems Laboratory. I c c c e e e e a f a f e e A e b a a e be e e e e e U e f e e a a e a be c e Pe ECE C e ECE

ECE 3430-3. Introduction to Microcomputer Systems. De f c c e e c a e b a a e a a e fac ec e E a e ac ca a ca f c c e a e e e be Pe ECE C e ECE

ECE 3440-1. Microcomputer Systems Laboratory. E e e a e e f e a a e face c c e e e a e e c c e b a e e E a ea ca f e c c e a a ec a a a ac be Pe ECE a ECE

ECE 3510-3. Linear System Theory. C a a c e a f ea e b e e e c a a fe f c ea ffe e a e a a ea ffe e c e e a a e A ca c c e e c ec a ca e e c Ta f e c e F e e e F e a f a a a c e a f l c a e a a be a e a e a a a U e fa a e f e e Pe ECE a MATH C e ECE

ECE 3610-3. Engineering Probability & Statistics. A c bab a a c a ca e e e be l c e ea f bab a a be e f c b f c e e c a Ga a a a be b a a e a a a be f e e e a a a be E a f a e e a a a c e M e Ca a b a e e e c P c ce e c e c e e a e ab fa e a e e We b e e a e e a e e l c a ce e l e a ec a e f a fa a a be a c e Pe MATH

ECE 3910-3. Introduction to Power Engineering. Ba c c ce a a a ca e ee a e e e c e e e a e e ae e e e e fcac a e a a e e a e e ba c e e f e e e e e c c c e a e a e l c e ec e a e a Pe ECE

ECE 4020-3. Semiconductor Devices II. A a ce f e e e c ca a a e e c e f e c c a a e e ce a e a e e ce c e T c c e c e ce c e ea effec a e e M fe c e c c e ce CCD e a e c ca ce c a e e ce Pe ECE e a e Mee ECE

ECE 4040-1. Introductory VLSI Fabrication Laboratory. Va e f V SI fab ca ce e c a e a a a e a a ea ff ca a e a a a e c l a e e a a e f e ce c a a ce a ec e a a a be e ab a Pe ECE ECE a ECE 8 c e f c

ECE 4050-3. Microelectronics IC Fabrication Laboratory. I e e e e e e a ec c e a e e ece ac e e e e ca e a f e IC fab ca ce e f e IC ce a ea e e a e e a e ab a e S e a e ECE bef e ECE 8 Pe ECE 8 a ECE c e f c Mee ECE

ECE 4070-3. Electronic Properties of Materials. P c e a a ca f e e e c ca ca a e c a e a e e f e ee e e c c a e a Te ea e e e f e e ca ea e a f c e e c a e a a e a e e e a e a e e a a e c a e c Pe ECE Mee ECE

ECE 4080-3. VLSI Processing. I c f e a ce e c a a ff e a a a a a CVD a a ce e c e c e a fab ca f e c e e c c e c e a e a f ce e a e e fab ca a a a f MOSFET a b a c e e c c e c e Pe ECE c e f c Mee ECE 8

ECE 4110-3. Electromagnetic Theory and Applications. A e e a e e e e c e be e ca ca e e e f Ma e e a a e Wa e e a l c e a e e e c a c e a e c a e a a P e c e a e a e a e e e a c f e a a e a c c a c e b e c f a a D a c e a a D a c G e e f c e f b e a e e a e Pe ECE e a e Mee ECE

ECE 4150-1. Microwave Measurements Laboratory. E e e a e a a e e e f a e a f e e c a e c e e a e e f a e a e e e e e a e c e e c a e e a e e a e f c a e c c Pe ECE e a e Mee ECE

ECE 4160-4. Power and Energy. T c c e a e c c c a a e a a f e e e c e c a c a e e c e c e c a ac e c ac e a e c ac e DC ac e e e e a e ab a e e e a f e c c e e a c c c P e ECE a ECE e a e

ECE 4200-1. Advanced Digital Design Laboratory. A e ab a f c e e f a e e a abe e ce P D a FPGA C e a e a a a e e c a a e e Ve be e P e ECE

ECE 4211-3. Rapid Prototyping with FPGAs. F e a abe a e a a FPGA a e a a a f e e a e f a ca ec c e a e c c ASIC beca e e ffe e e a f a c e a a a e e be b ee a a f T e a ffe e a abe a c ec e T c e f c e c b e e f FPGA a e e e e a e f ASIC A c ec a a e f a c e a e ff a c a a c e c f b c e c a a f e a a ca a abe FPGA b e c e e l c e a e a ec P e ECE Mee ECE

ECE 4220-3. Analog IC Design. A f a e a a a c c e c e a e a b e a b e e e c c e c e e c c c e ec e a e e e c a a f c a e f a c e e e e f e a a e a e c c l c e e ec P e ECE ECE a ECE Mee ECE

ECE 4230-3. Analog Filter Design. T e ec ca e a a fac e a a e a a e b a e e e a e c c ec a V SI De l e P e ECE Mee ECE

ECE 4242-3. Advanced Digital Design Methodology. F c e e a e ac ce c e b a e e a c e e e a e e a c a a e e e f b e a a e a a e e c a a e a a e e c b a a a e e a c e T e Ve a a e b e e e a a c a c f f c a e c a e b e c e e a a a f a a a e f e a b De e a e c e c c e RISC CPU e e c e a e e a e a c e f a a a c UART a ca a c ec e f c c a a C e ECE Mee ECE

ECE 4250-3. Microwave Circuit Design. A c e e a a a f c a e c c b a e a a c e T c c e c a e c c a a ea e e e a e c e a e e e e e e e c e a e a a e a e c a c e b e e e a c e a f e e e c e a e f e a a e P e ECE e a e Mee ECE

ECE 4260-3. Mixed Signal IC Design. De f a a c e e c c a a c e e f a c e a a e c e a c a P e ECE c e f c Mee ECE

ECE 4270-3. CMOS Radio Frequency Integrated Circuit Design. CMOS ba e F e e c a e e a a e e a e e f e c e e a e NA e RF e a e a e c e c a a e e a e a e c e a c e a RFID e P e ECE ECE a ECE Mee ECE

ECE 4320-3. Fault Detection & Design for Testability. S c a f a e e e e a f c b a a c c B e a ffe e c e D a PODEM FAN a c c a a f a a c e a e a e c e e e e a f c e e a c c c f c e e e e a f a a e b a c f e f e a b P e ECE e a e Mee ECE

ECE 4330-3. Embedded Systems Design. I c e b e e e c e a e f a e a c a c e S e a a e a f a e e c e e e e b e e e a c f a e b e e a e e b e e c e a a a c e a a e S e e b e e e P e ECE C S c e f c Mee ECE

ECE 4340-3. VLSI Circuit Design I. De c e a f MOS e a e c c a e a CMOS e c a e e a b e e e c c e c e e e e c c e c e e a e e e c a a f c a e f a c e e e f e a l C c c P c a b e a f C MOS a a e a e c c CMOS ec CMOS c c a c e e e a c e e e P e ECE a ECE Mee ECE

ECE 4362-3. Synthesis with Verilog HDL. c e e Ve a a e e c a a e a c e c a EDA I c e a c S e Ve P e c e e P e ECE Mee ECE

ECE 4480-3. Computer Architecture and Design. T e e f a e a e e a e c e A c e c a a e a e c e e e e a c c a a a c a e a e a e c e P e f f P e ECE c e f c Mee ECE 8

ECE 4510-3. Feedback Control Systems. e a a a a a a f e e c c a c e c a a c e c a c a e b c a a a a a C a f e a c e c a Fee b a c c e e N B e a c e Effec f e e e e e l c f a e a a b e e c e a a c e P e ECE ECE Mee ECE

ECE 4520-3. Multivariable Control Systems I. F a e a a e c f e c e a e c e e c e e e a e a a b e f a c a b b e a b e a c e e a e a a f a C e b a e f c e a e e P e ECE a MATH e a e Mee ECE

ECE 4530-3. Control Systems Laboratory. I c e e e e e f c e c e O e a c e fee b a c e e f e e S a f e a a a c e De f c e a e C e ECE

ECE 4540-3. Digital Control Systems. T e a a c a f c a c a a e c e e e c e A a a e f c e e e a b c a f c f e e c a a a e a a b e c e a e c e O e e e a b a c e b e e P e ECE Mee ECE

ECE 4560-1. Digital Control Laboratory. D c e e e c b e e e a e e c c e c e a A D a D A c e e a a a c e E e e e c f c e e a a a e b e e f e C e ECE

ECE 4610-3. Analysis of Random Signals. P b a b a a a a b e P a c c a a e c a e f a a a e e e a a a S a c a a a a e c e c e a a e f e a e e a P e ECE a ECE e a e Mee ECE

ECE 4615-3. Statistical Signal Processing. C e f a c e a a a e c a c e e a e e e c W e e e c e a a e e c e P e ECE ECE Mee ECE

ECE 4625-3. Communication Systems I. I c c e f e c c a e a a c e AM FM PAM PCM a e a a e a a e e effec a e c e a c a a P e ECE Mee ECE

ECE 4630-3. Communications Systems II. C a f ECE D a a a e a e a a a e e c e c e e f a c e e c e a e c a a c e c c a e c a f c c a e P e ECE & ECE e a e Mee ECE

ECE 4650-3. Modern Digital Signal Processing. S f e a c e e e e a ffe e c e e a a f c e e F e a f fa F e a f e c e e a c e e a a effec a e e a e c c e P e ECE a ECE e a e Mee ECE

ECE 4655-3. Real-Time Digital Signal Processing. A c e e e e a e e a f a c e a e a e a a e a e T e e a b e e a a e b a e b a a e a b c e P e ECE ECE Mee ECE

ECE 4660-3. Introduction to Digital Image Processing. Me f c a c e a e b a c e a e e a e e F e e e e a e f a e e a c e e e a e a a a e e a c a e e c c e a b c a a c a P e ECE a ECE Mee ECE

ECE 4670-1. Communications Laboratory. ab a e e e e a a e a a ECE U e a e f S e c a a ba e b a a a c e T c c e e AM FM PM a TDM a a e a c e e c c a e P e ECE C e ECE

ECE 4675-3. Phase-Locked Loops and Frequency Synthesis. A f a e c e a f e e c e e B a a a e a e c a e a e e e a a e a e a e c e e P e ECE a ECE Mee ECE

ECE 4680-1. Signal Processing Laboratory. A a e e e a a f a c e c e a FFT a P e ECE a P e C e ECE

ECE 4890-1. Senior Seminar. De c e a a a e f e a c c a c a e c c f a c a f e e a b a e e c e c a c a a c e e c a a a e a e c e f a a e e a a a e e e e e a e e a f a a f a a f a a b e e P e T c e b e a e e e e e b e f e ECE 8

ECE 4899-3. Senior Design Project. A e c a b a e e a e e e f e e e a f e e f e c e a e e a e a f c c a c e e e e c a a c e e e c a e c a e c e e c c e e c fab c a c e e CMOS e a e c c S e e f e e c a c e e a e e c De e c a a a e a

a c c fa cce f ec e e f c e f ec e Pe ECE 8 a a e e e f e ee

ECE 4910-3. Selected Topics. C e c ECE See e c e c e ef e f ec c c Pe Se a Mee ECE

ECE 4990-1 to 3. Selected Topics. C e a b ec a e be a a e C c e c e c e e fca e f ffe f c Pe C e f c

ECE 5010-3. Electronic Ceramics. C e c e ca e feac e feec cce a c e a ca c a a e ca ac fa c c a e c ce a c ca a eec ca a e a a e a e Tc ce a c ec c eec cc a a e a a e C e b a e a e a e c c a ca H e e a e a e ec e e a e fba c a e a e ec e e ce e a e e a be a e a a f ec e Pe ECE

ECE 5020-3. Semiconductor Devices II. A a ce f e e ec ca a a e e f e c c a a e c e a e a e e c e e c e T c c e c e c e ea effec a e e M fe c e c c e ce CCD e a e c ca c e c a e e ce Pe ECE e a e Mee ECE

ECE 5030-3. Advanced Semiconductor Device Modeling. I ce a a ce e a a a e e e e e e f e ca e ce e T e c e e e a e e f e ca ca a a ca e e ffe e ce a e e e e c e e c e e e ce e a Tec ca e a e e e e ca e a e a e e e f e e fab ca ec a e f e a a e c e a f e e ce T c e e ef a f a e f e a e a a a e e b e c c c a e Pe ECE

ECE 5050-3. Microelectronics IC Fabrication Laboratory. I e e e e e e a ec c e a e e e c e ac e e e e ca e a f e IC fab ca ce e f e IC ce a ea e e a e e a e ab a e S e a e ECE bef e ECE 8 Pe ECE 8 8 a ECE c e f c Mee ECE

ECE 5060-3. Processing and Device Physics of Advanced MOSFET Microelectronic Structures. De e e f ba ca a e e a f e fab ca ce a e ce c f a a ce MOSFET c e e c e a c e ec c c c T c c e e c e MOS e a c a a c e a MOSFET ce e ce c a a ce MOSFET ce e ce c e e a fc e e a e Pe ECE c e f c

ECE 5070-3. Electronic Property of Materials. P c e e a a ca f e e ec ca ca a e c a e a e e fe ee e ec c a e a Te e a e e e f e e ca e a e a f c e ec c a e a e ec a e c Pe ECE Mee ECE

ECE 5080-3. VLSI Processing. I c f e a ce e c a a ff e a a a a CVD a a ce e c e c e a fab ca f e c e ec c ec e e a e a f ce e a e fab ca a f MOSFET a b a c e ec c ec e Pe ECE c e f c Mee ECE 8

ECE 5090-3. Semiconductor Device Characterization. C a a c e a f e c c e ce f a ca a a ca T c c e e f e a e c c ac e e ce b a a MOS e a e c c ec e a a a a e a c e a ac e a a e e a a a e a fe e c e e a e a e c c Pe ECE e a e

ECE 5100-3. Technology of Gallium Arsenide Devices. T c e e GaA ce ec a e ce T c c e a e a c a a c e a GaA c MOCVD MOSFETS a HEMTS a GaA c c a a a a ca Pe ECE

ECE 5110-3. Electromagnetic Theory and Applications. A e e a e e e e c e be e ca ca e e e f Ma e e a a e a e e a I c e a e e e c a c e e a a e c e a e a e a a P ec e a e a e a e e e a c f e a a e a c c a c e be c f a a D a c e a a D a c G e e f c e f be a e e a e Pe ECE e a e Mee ECE

ECE 5120-3. Antenna Engineering. A c a a f ECE a a e e a e e e I c e a a e e e f e a a e a a a a e a e a a a f e f a e e a e c c a ce a e e e c a c a e e a e a b a a e be G e e f c a e e e c a e c Pe ECE e a e

ECE 5130-3. Waveguiding Structures. A ca f e e c a e c e a f ba c a e a a c c e T c c e a e a e e c a e e e a c e a e e a ca e a a a e c f e e c a e e c a be Pe ECE e a e

ECE 5150-1. Microwave Measurements Laboratory. E e e a e a e e e f a e a f e e c a e c e Mea e e f a e a e e e e e a e c e e c a e e a e a e e a De f c a e c c Pe ECE e a e Mee ECE

ECE 5160-3. Electromagnetic Effects in IC Design. S e e e c a e c c e a IC e e I c e RF c e be a EM a e a e e e a c e a e a c e a e ffe e a c c b c e c a a a e e a EM e a e e e Pe ECE a ECE

ECE 5170-3. Electromagnetic Compatibility Engineering. F a e a f EMC e a a a e a e e S a a a e e e be e a e T c c e e e e FCC e a e a a cab e a c e c c a e f e e c e effec A a c e f EMC e a be c e e Pe ECE e a e

ECE 5190-3. Remote Sensing. C e f a e a e c f a e e e e c e T e e e c e c e ca f a e c a e a c e a e a a e a a a e Bac effec a effec f a a e a e e a e c e a e a a e ff f e a a f ca a b e Pe ECE a PES e a e Mee MAE

ECE 5211-3. Rapid Prototyping with FPGAs. Fe a a b e a e a a FPGA a e a a a f e e a e f a ca e c c e a e c c ASICS beca e e ffe e e a f a c e a a a e e b e b e e a a f T e a ffe e a a b e a c e c e T c e f c e b e e f FPGA a e e e e a e f ASIC A c e c a a e f a c e a e ff a c a a c e c f b c e c a a f e a a c a a b e FPGA b e c e e l c e a e a e c Pe ECE Mee ECE

ECE 5220-3. Analog IC Design. A f a e a a a c c e c e a e a b e e a b e e e c c e c e e c c c e e c e a e e e c a a f c a e f a c e e e e f e a a e a e c c l c e e e c Pe ECE ECE a ECE Mee ECE

ECE 5230-3. Analog Filter Design. T e e c a e a a f a c e a a e a a e b a e e e a e c c e c a V SI De l e Pe ECE Mee ECE

ECE 5242-3. Advanced Digital Design Methodology. M e a e c e b a e e Ve be a a e c b a a a e e a c e F c a e c a e b e c e e a a a f a a e f e a b Mc c e a c e a e ac e a a a a c Pe ECE Mee ECE

ECE 5250-3. Microwave Circuit Design. A c e e a a a f c a e c c b a e a a c e T c c e c a e c c a a e a e e e a e c e a e e e c e e a a e a e c a c e b e e e a c e a f e e e c e a e f e a a e Pe ECE e a e Mee ECE

ECE 5260-3. Mixed Signal IC Design. De f a a c e e c c a c e e f a c e a a e c e c a Pe ECE c e f c Mee ECE

ECE 5270-3. CMOS Radio Frequency Integrated Circuit Design. CMOS ba e Fe e c a e e a a e e a e e fe e c e e e a e NA e RF e a e a e c e c a e e a e a ece e a c ec e a RFID e Pe ECE ECE ECE Mee ECE

ECE 5320-3. Fault Detection & Design for Testability. S c a fa e Te e e a f c b a a c c B e a ffe e c e D a PODEM FAN c c a a Fa a c e a e a e c e Te e e a f c e e a c c C f c e e e e a Fa a Ba c f e f e a b Pe ECE e a e Mee ECE

ECE 5330-3. Embedded Systems Design. I c e b e e e c e a e fa e a ca c e S e a a e a f a e e c e e e b e e e c f a e b e e e a e e b e e c e a a a c e a a e S e e b e e e e Pe ECE a C S Mee ECE

ECE 5340-3. VLSI Circuit Design I. De c e a f MOS e a e c c a e a CMOS ec a e e a be e e c c e c e e e c c c e e c a e e e e e c a f c a e f a c e e e e f e a I C c c P ca be a f CMOS a a e a e c c CMOS ce ec CMOS c c a c e e e a c e e e Pe ECE a ECE Mee ECE

ECE 5362-3. Synthesis with Verilog HDL. c e eVe a ae ec a ae a c eca EDA l c e a c S e Ve P ec e e Pe ECE Mee ECE

ECE 5370-3. Artificial Neural Networks. A e ea c e a ea f a e a e a c e a e e e e a a a ca f a ca e a e P e Ga ae a Mee ECE

ECE 5410-3. Advanced Topics in Testing. B fa a e ce c e e BIST P A RAM ROM De a fa a ae ea a ea e c e e a e e e fa a P e ECE Mee ECE

ECE 5450-3. Advanced Computer Architecture. T a ec c e c e ac ec e T c c e e c e e ac ec e a e c e e ce a c e ec ec c e e a e e f a ce e a a a a ca ec e ac ec e Pe ECE a ECE 8 8

ECE 5480-3. Computer Architecture and Design. T e e f a e a e e a e c e Ac ec a a e a e c e e e e a c c a a ac a e a e a e c e Pe f a ce a e ff Pe ECE c e f c Mee ECE 8

ECE 5510-3. Feedback Control Systems. A a a e f e a c e ea a a a a fe ec ca a ec a ca e b c a a c a f e a c e c a fee bac c e e N B e a c e effec f e e e e e a e e a f c e a ab a e P e ECE ECE Mee ECE

ECE 5520-3. Multivariable Control Systems I. F a e a a ec f e c e a e c e e c e e ee ae a ab e f a c ab b e ab e ace e a ea a f a C e ba e f c e e a e e P e ECE a MATH e a e Mee ECE

ECE 5530-3. Multivariable Control Systems II. De f e a e a ab e f a a e c e e c ea a a c e a a e e a e efe e c e c e a a H c C e a e e P e ECE

ECE 5540-3. Digital Control Systems. T e a a ca f ca ca a a e c e e e c e A a a e f c e e e a b c a f c fe e c a a a e a ab e c e a e c e e O e e e a b a c e be e P e ECE Mee ECE

ECE 5570-3. Optimal Control Theory. F a f a c be e f a ce e e a a a a ac a c be P a a c e e c e f a e Ha Jac b e a c a a e e e e e e ce e a a f e e a a ea a a a e ec P e ECE e a e

ECE 5610-3. Analysis of Random Signals. P bab a a a abe P ac ca a e c a e f a a a e e a a Sa ca a a a e c e c e a a a e f ea e e a a P e ECE a ECE e a e Mee ECE

ECE 5615-3. Statistical Signal Processing. C ce f a ce a a a ec a ce e a e e ec We e e ec e a a e e c e P e ECE ECE Mee ECE

ECE 5620-3. Detection and Extraction of Signals from Noise. De ec a e ac e e a ce l c e c bec a ec e e e c f a a ece e e a e a a e a e e a f a a e e We e e a a B c e a a ca be c ca e P e ECE a ECE e a e Mee ECE

ECE 5625-3. Communication Systems I. I c c e f e c ca e a a ce AM FM PAM PCM a e a a N e a a e e effec a e c e a c a a P e ECE Mee ECE ECE C ca S e II C a f ECE D a a a e a e a a a e e c ec c e e f a ce e c ea ec a ace c ca a fc ca e P e ECE a ECE e a e Mee ECE

ECE 5635-3. Wireless Communication Systems. T e f e e c ca e c a e e ce a c a a ce c a ff a ec e ec a e e a e e P e ECE

ECE 5640-3. Spread Spectrum Communications Systems. A e f e a ec e c e e a a e f a ce T c e effec f e e f e e ce e a ec e e f a ce ac a ac f e e a ec a a a c c ec e e a e e effec f a P ec e e a e e c e bac a a a bab a a c ca P e ECE e a e Mee ECE

ECE 5650-3. Modern Digital Signal Processing. S f ea c e e e ea ffe e ce e a a f c e e F e a f fa F e a f e c e e a e a a effec a e e a e c c e P e ECE a ECE e a e Mee ECE

ECE 5655-3. Real-Time Digital Signal Processing. A c e e e e a e e a f a ce a ea e a a e a e T e e a be e e a a e b a e b a a e a be c e P e ECE ECE Mee ECE

ECE 5660-3. Introduction to Digital Image Processing. Me f c a ce a e b a c e a e e a e e F e e e e a e f a e e a ce e e a e a a a e e a l c a e e c c e a b c a a ca P e ECE a ECE Mee ECE

ECE 5675-3. Phase-Locked Loops and Frequency Synthesis. A f a e c e a f e c e e B a a a e a e c a e a e e ea a ea e a e c e e Pe ECE a ECE Mee ECE

ECE 5680-3. Computer Communications Networks. M e c ca e e a ea f e a e a aa be e c a e be e e e a c e Ce a e c a e a e be ea e a ca ac a e e e a c a e e a a e e T c e a e e be e c e f ffe e c e a c ca e e Pe ECE e a e

ECE 5900-3. Graduate Seminar. Mee f fac e a e f a c a e c f ece a a ce e e a c e c f e e Se a c e e be a ce a e be f e Fa a S e e e T c be e e e b fac a a e e a e e c e f e e e e e a e c e a Pe C e f c

ECE 5910-3. Selected Topics. C e c ECE See c e c e c e e f e f e c c c Pe Ga a e a Mee ECE

ECE 5970-1 to 3. Selected Topics. C e c ECE See c e c e c e e f e f e c c c Pe C e f c

ECE 5990-3. Advanced Topics Seminar. C e c c e e c c a e a e c e a c e e Pe C e f c Mee ECE

ECE 6020-3. Solid State Electronics II. T c e e e f a a ce e f a f a ea e f a e e a ec a e a e c c T c c e e e ba e e a e fec e c c ca e c ce a e a e b B a a e a e a effec e c c ff fe e c a e ca e fe e c a e e c ba e e a e e effec fe e c a a e c c Pe ECE ECE a PHYS e a e

ECE 6040-3. Quantum Electronics. I c e e f a e ca e a a ea c e e a a ca e c e Pe ECE a PES e a e

ECE 6111-3. Math Methods for EM Field Theory: Part I. De e a a e a ca e f EM e ba e Ma e E a e e e He We a e E a f e a a e a a e e a e e e e a e a f a a a ca e ba e Gee F c A ca c e e e c ca a e c e e f a e a a e a a a a e e c a a P e ECE

ECE 6112-3. Math Methods for EM Field Theory: Part II. A e a e a ca e e e e ECE a a c e EM be A ca c e a e a a a ca e a e e ca e a e a e a e a c e be c c e ca e c e M e Me & GTD a Gee F c Pe ECE

ECE 6120-3. Numerical Methods of Field Theory. C a f ECE Pe ECE e a e ECE A ca Ne a Ne A e e a c e a e a e f a e a e a c e a e e e e e a a a ca f a ca e a e Pe Ga a e a Mee ECE

ECE 6410-3. Advanced Topics in Testing. B fa a e ce c e e BIST P A RAM ROM De a fa c a e e a a e a e e c e e a e e e fa a Pe ECE Mee ECE

ECE 6550-3. Nonlinear and Adaptive Systems. A a e f ea c e c a e a e a e c b f c a ab a a a e c e e S e e ca a e f a a e e a e c e Pe ECE

ECE 6620-3. Detection and Extraction of Signals from Noise. De ec a e ac e e a ce a c e c bec a ec e e e c f a a ece e e a e a a e a e e a f a a e e We e e a a B c e a ca be c ca e Pe ECE a ECE e a e Mee ECE

ECE 6630-3. Information Theory and Coding.
I f a a e Ma c a c b e
e c e c e c a e
ca ac a a a ca c ca
e ee Pe ECE e ae

ECE 6640-3. Spread Spectrum Communications Systems. A e f ea ec
e c e e a a e f a ce
T c e effec f e e fe e ce ea
ec e e f a ce ac a ac
f e ea ec a a a c
c ec e e ae e effec f
a P ec e e a e e
c e bac a a a bab a
c ca Pe ECE e ae
Mee ECE

ECE 6650-3. Estimation Theory and Adaptive Filtering.
P e e ea ca f a e e
be c ca a a ce
T c c e cee ec a a a f a
a cee e a eec e a a
e a c e a a e a effec
f cee e ce a a ce
Pe ECE a ECE e ae

ECE 6980-3. Ferroelectric Materials and Applications.
P e e ffe eec c b a
a e a e a a ca e ae
c c e ce De e ea e a a a
c e face e e aae e e e a
S c a a a e ce e ae c e
e a e a ca Pe ECE

ECE 6990-3. Advanced Topics Seminar. C e c
c eec c a e a e ce a ce e
Pe C e f c Mee ECE

ECE 7000-1 to 6. Masters Thesis. ECE 8000-1 to 10. Ph D Dissertation.

ECE 9200-1 to 3. Independent Study in ECE – Undergraduate. A f e
e e e e cea e eec ca
a c e e ee b c a
c eec c f ea Pe P a ee
e a fac a

ECE 9300-1 to 3. Independent Study in ECE – Undergraduate. A f
e e e cea e eec caa c e
e ee b c ac ee
c c f ea Pe P a ee e
a fac a

ECE 9400-1 to 3. Independent Study in ECE – Undergraduate. A f e
e e e cea e eec caa c e
e ee b c c eec c
f ea Pe P a ee e a
fac a

ECE 9500-1 to 3. Independent Study in ECE – Graduate.
A f a ae e e e e
cea e eec caa c e e ee
Pe P a ee e a fac
a

ECE 9990-0. Candidate for Degree. F e
a ec ee a c e a e b
a e e efe e

ENGINEERING

ENGR 1001-3. Introduction to Robotics. A c
c e e e f a a aea e e
f b T c c eba c e e f e
ea e ec a c c e e
a ce ea c b EGO
be e e e e Mee
ECE

ENGR 1411-2. Digital Electronics. F a e a
f D a Eec c N be S e c Ga e
B ea A eba C b a a C c De B a
A F S f Re e a C e c
Fa e a S ec ca I c c
ce Mee ECE

ENGR 1502-3. Principles of Engineering. I ce
e e fe ee E e a ec
e a a fac ce e e ae
e ee e a ce cea ec a
e ee be ce T ec e a
c e a e a a f c a a ca ca
f ec C E e e S e c e

ENGR 1503-2. Introduction to Engineering Design.
P be a e e e e
ce M e f c a e c e a e a a
e a c ca e c e a e e
f a e c D a c ec a D
e c e c a a ec ca ec
e ec a e f a e
a e C E e e S e

ENGR 501-3. Introduction to the System Perspective.
De e e e e ee e a a e
e c e a b ec e e e a a ea
e a fac fa a e ee Offe e a a e a
c e f e a c e c e e a
e e e e a e a e b a a ce
O e a a e e

ENGR 502-3. Engineering and Applied Science Education: Digital Electronics. De e e f e e
ca a ca eac e e ee
c e T ec e c e e e
ee e e f P ec ea T e Wa D a
E e c c Pe a ca e e a ac e f ec
ca a e a a be e e e ab a a
a c a c e ec a e e e T c e
a be e a a a a e e e ffe e b
e C e e f E ee a A e Sc e ce

ENGR 503-3. Engineering and Applied Science Education: Introduction to Engineering Design.
De e e f e e ca a ca
eac e e ee c e
T ec e c e e e ee e e
f P ec ea T e Wa I c E e e
De Pe a ca e e a ac e f ec ca
a e a a be e e e ab a a a
c a c e ec a e e e T c e a
be e a a a a e e e ffe e b e
C e e f E ee a A e Sc e ce

ENGR 504-3. Engineering and Applied Science Education: Civil Engineering and Architecture.
De e e f e e ca a ca eac
e e ee c e T e
c e c e e c e e a a c ec
e e e f P ec ea e Wa C
E e e a A c ec e Pe a ca e e
a a c e f ec ca a e a a be e e e
ab a a a c a c e ec a e
e e T c e a be e a a a a e
e e e ffe e b e C e e f E ee a A e
Sc e ce

ENGR 505-3. Engineering Project Management.
P e e ef a e a f ec e e c a a
e a a c e a c I c e e e e
ec c a a ec c e e a e e c
e fe a a ec c e c a
a a e e a c ec c e b e
a c O e a a e e Mee
MAE

ENGR 506-3. Project Lead the Way Aerospace. A
b a a e fae ace e e c c e a e
e e e c ae a c ace e e
b a ec a c a c a f e a a a a
a a e e a ae ace Aff e e
a e e f e a f c e f
a e a e e e f c e e a e e
c ce e Pe Ga a e e e

ENGR 507-0.5 to 3. Space Technologies for the Classroom. C e a e a e f ace ec e
a e e ee ca f e e ca
S e e a b ec e a e a ca
a ac e f e c ce c a e f a e a
f b a ec a c a e e e a a ba
e S e e a e M
ba e a c b a f ba a a a c e
a e NASA Ma R e ec ca be e eac
c e c e a e e e c e T c e ca
be e f c e a a e e c a e e e
c e c e c e c e e e e ec a ca
e e e e e Mee CURR

ENGR 508-0.5 to 3. Rocketry Technologies for the Classroom. C e a e a e f c e ec
e a e e e e ca f e e ca
S e e a b ec e a e a ca
a a c e f e c c e c a e f a e a
f a e a c c e c e e e a a ce
e a a GPS S e e b a a c
c e a e a e c a be e e a c
c e c e a e e e c e T c e ca
be e f c e a a e e c a e e e
c e c e c e c e e e e ec a ca
e e e e e Mee CURR

ENGR 509-1. Project Lead the Way Gateway to Technology Aerospace. A b a a e f a e a ce
e e e c c e a e e e e c a e
a c a c e e e b a e c a c a c a f
e a a a a a a e e a a e a c e
Aff e e a e e f e a
f c e f a e a e e e f
c e e a e e c c e e F c
e c c c Pe Ga a e e e

ENGR 510-3. Principles of Engineering. I ce
e e fe ee c e ca
E e a ec e a a fac
c e e e a e e e e a c
e c e a ec a e e e be
c e A c e a e a a f c a a
c a c a f e c a c
e e a fe e e O e C E e e
S e a a e e

ENGR 511-3. Systems Engineering Processes. A
e e a a f e S e E e e c e
e e e c e a a c e c e a
f e e f c e e T e f a f
e b e a e a a c b e
e a e l c e a e b a e a a c e
e e e e a c e c e
e e e a a a f c a a c a a e f f
a a a a a e e f c c e a
O e a a e e P e ENGR Mee
MAE

ENGR 515-3. System Analysis. P e a c
a a e e e c e F c
e e e f a a e a e a c a e
c e e e a f e e a a c a
f e e e c a c e a l c e
e a a e a e c e a e a e e c
a c a c e O e a a e e
P e ENGR

ENGR 521-3. Systems Architecture. P e e
f a f e e a e a a a c e c e
f e c e e e M e a a e
c e e e a e a c e c e a a
T e c e a c c e f e a
e e e a c e f e e e a a e
a e e a a f e O e a a e
e P e ENGR ENGR

ENGR 531-3. Project Estimation and Risk Analysis.
S c c e f e c a a e e c e e a
a a c e e c a a e e e f
a e c e S e c e a e c e
e e c a e e e a e a a
a e e e e e T e c e a
e e e e b c c e f e c a a e
be e a e O e a a e e P e
ENGR ENGR

ENGR 535-3. Engineering Modeling and Simulation.
De e e b e f a e a c a e
a a c a e e e a e e e e e
c e e a e e e e c e f e c e
T e a f e c e c e e f a
e a f a e a c a e e c e f

a c a c e T e ec a e eea a f ceeeee c e a O e a ae e Pe ENGR ENGR Mee MAE

ENGR 545-1 to 2. Systems Engineering Project. Tea e e ee ca e ec Me a ec e c ee e c e be e e e e e ee ce e a c e e c ce O e a ae e Pe ENGR ENGR ENGR

MECHANICAL ENGINEERING

MAE 1502-3. Principles of Engineering. I ce e e fe ee E e a ec e a a fac ce e e ae e ee e a ce cea ec a e ee be ce Tec ea c e a e a a f c a a ca ca f ec

MAE 1503-2. Introduction to Engineering Design. P be a e e e ce M e f c aeceae a a e a c cae c e a e e f a e c D a c ec a D e c e c a a ec ca ec e ec a efa e a e Pe MAE

MAE 2007-3. Introduction to Biology for Engineers. I c ce a a ec a b f b a T c c e c a a f c a c a a c e c f c e b c e a c e a e a b ce e c e e c ce a c ca e c a e c

MAE 2055-3. Mech-Etronics I. A c c e a a a a e e c c c c f e c a ca e ee O a a c ff c e a a e a a e ce a a e e a a f e e c c O e a a e f c e e e c e a ac ce F a e a a a a a a a a a e a c e e Pe MATH c e MATH 8 PES

MAE 2101-3. Statics. F ce ec e f f ce e b fa a cea b e c a a a a e e a f ce a ea f c ce e f a a a e f e a a a e Pe MATH PES MAE c e f c

MAE 2102-3. Dynamics. D a c fa a ce e c fa e f a ce e a c f b e a ee e f e e a f ce b a a c a Pe MAE C e MATH

MAE 2110-3. Fundamentals of Flight. I c ee ee ce c e f F a Ba c e a fae a c f a a a c f c e a e e a a c a f e f a ce e b a c e c a f b a e a c a c a f a c e a f e e e e b e c e

MAE 2301-3. Thermodynamics. F a ec a f e a c P e e a e e a c f c e a b a b P e MATH a PES

MAE 2501-3. Computer-Aided Drafting (CAD). F a e a f ec a ca a Ma a af ec e a e e f CAD f a e c e a e D a D a a c e D a c ec a D e c e c a a ec ca ec e ec a efa e a e c f ca e e a c e a a a a e b e b e c e e

MAE 3001-3. Technology and Change. Gea e a ec ca a e e e f ec S e c e a e e a f e c ac ce fa a a a e e ace ce a e e e e c a a eca f e a c c e a e b e a e a e f e Na a ec e a e a e e e c e a e c e Pe S a e a ea e a

MAE 3005-3. Engineering Measurement Laboratory. F a e a ec ca ea e e ec e ea e e ce e a a a a e a e e e e e a c ea a a ce ea e e a a a ea e f ce a e a e ec a ca ea e e c e ace e e a a f c e a e e ea e e Pe MATH ECE a ENG

MAE 3010-2. Mechanical Engineering Laboratory. ab a e e e e a c ec a c e f a e a ea a fe c a c ac a fac a b c Re e e a a fab a e a e e a f e Pe MAE

MAE 3055-3. Mech-tronics II. E e e c fa a a a c c f MAE A a a a a a c e a c c a e ce a a ea e e e a be b T e c e ce e e a a a a a c e DAS a e f c e a f e c e a e a DAS F e a a a a a ce a a a be a e e T e c e c a e a a ec e e c c a e a fa ea e e e Pe MATH MAE

MAE 3130-3. Fluid Mechanics. A c ec a c c e c a e e c a c a a a b e c e bea c e be e a a e e a a c e b a c a ab ea f c a Na e S e E a Pe MAE a ENG

MAE 3201-3. Strength of Materials. T e e a a ca f ef a e a c e f ec a c f a e a c e a ec a ca e e f a e a a a a be a e e ea c b e a e a f a a a f a e f bea a af e ec f bea a af b c fc a e e e Pe MAE a MATH C e ENG

MAE 3302-3. Thermodynamics II. A ca f ca ca e a c c aa f a a a cce f e c a ef ea e a c e ea c e c a c b Pe MAE

MAE 3310-3. Heat and Mass Transfer. T e c e f ea a fe c c c ec a a a ea a ea a e c c e a c ac e a ce a ea ca ac f ce a a a c ec e c a e a b a a e a a f bac b e face a e Pe MATH MATH MAE a ENG

MAE 3342-3. Engineering Economy. Ec c ec a fe a e c b e ec e a a cac a e ee a a c ac a ee e Pe J a c c e

MAE 3401-3. Modeling and Simulation of Dynamic Systems. C e e e ba cc ce f a c be a a ea a ca c a a ec e f e c a a e a c be a M e a ba c e c e a c ab a a a be a a e e c a ab a e e e e Pe MATH MAE a MATH 8 ECE e e f MAT AB

MAE 3501-3. Machine Design. A e e a a a a e a e e e f a e ec a e a f ac e e e e fa e a e ab Se ec ffa e e bea ea Pe MAE

MAE 3560-3. Design for Manufacture. T e e a ac ce f ac e a fac abe e T c c e c a fac ce e cea a e DFM c ce e c a DFM a ec c a a e a a fe c c e e a e b a e e a a fac Pe ENGR a MAE Mee MAE

MAE 4001-1 to 3. Engineering Analysis. P e f c e a a e e c e a e e e f a e fe e c e e ee a a e e e Ma e f E ee a Eac e c e M e l D ffe e a E a a Se e M e II ea S e M e III P bab a A ca Pe Se a a e a

MAE 4120-3. Kinematics. e a c e f a a ec a e c a acce e a a c e c e ce e a a a e f ba a e e e a c Pe MAE MAE a MATH

MAE 4131-3. Computational Fluid Dynamics. A e e ff a e a e ca e f be a e a ce c e ca CFD f a e D c e a ec e a a f ffe e e a e a a c be e Pe MAE Mee MAE

MAE 4135-3. Aerodynamics. A f a ae a c a f e a c e bea c e be e e l e ca e ae a c Pe MAE

MAE 4150-3. Vibrations. F ee a f ce e e ee ff ee e Da Ra e C b e e c a c Ha c fe e c a e e e a a cf c Ge e a f c c a e e e c a C a a a ec e f e b a be Pe MATH MAE C S e a e

MAE 4155-3. Introduction to Composite Materials. P e e a a ce a c a c e A ca cea c a a a e f a a e e f a a e c e Fa e e e Ta H a Ta W H e a a e e e c a e e c e C a f c e b e a Pe MAE MAE a MATH

MAE 4210-3. Fracture Mechanics. F a e a c ce f c e fa e e e e e c e c a c a a a e e a ce ea Ea c Fac e Mec a c e c ce a G f e e e e e a e a e Ga J e a a c a c a c a e e a a e e fa e Pe MATH MATH a MAE Mee MAE

MAE 4316-3. Propulsion. Ba c c ce fa e ace F a a c ce f e a c c e be a b a a e e C a a c e c e a a a a f b e e e C a a c e c e a a a a f c e e e Pe MAE a MATH

MAE 4402-3. Intermediate Dynamics. e a c ea e a a f a c e a b e c e a e E e a e a e a Va a a c e e e e a a a e e a a Eec ca c c a e e c e ca ca e Pe MAE e a e MATH a MATH

MAE 4410-3. Fundamentals of Astrodynamics. De e e a a ca f e f a e a c e fa a c a e e S f c a e e e e e c a f b a c e ba e Pe MAE a MATH

MAE 4415-3. Flight Dynamics. A a ce ea e f e a c fa e c e c e a acec af R e e e f ea e a f c e e aa e f ce ea a a a e ba e a a e e e ab a a e I a ec e P e MAE a MAE Mee MAE

MAE 4421-3. Automatic Control of Aerospace and Mechanical Systems. I c ea acc f ae ace a ec a ca e Ae Mec e e a c af acec af c a a a a a MAT AB f e c a ec e f a a a e c B e N T e a f e c a ea Mec Ae S e a P e MAE MATH a MATH

MAE 4425-3. Space Environment. I c e e a effec f ee e c acec af a a a eae l e ec eae e ea a e T c c eea e e eea eece a a be a e eea a e a e c cee a bac a ece b a a c effec P e PES e ae a MATH Mee MAE

MAE 4450-3. Robotics. D a c e a c a a acc f b c e ce F ce a c a a P e MATH MATH MAE a MAE Mee MAE

MAE 4455-3. Flight Mechanics. A f a e a f e aec a c fae ace e ce ea ea e e a c af a e R b e a f e ce ca e c a e e ae a ca ef ce a e e c aec a P e MAE MAE MATH a MATH Mee MAE

MAE 4460-3. GPS Principles and Applications. C e f c a GPS G ba P Sa e e a a e a a ca a a ea a ea ace Effec fa e c a a be c e S e f a ef c a a a e e a a c a ec be e P e MAE a MATH 8 ECE

MAE 4506-3. Engineering Simulation. I c ee e a e e e f c a c a c c e e c a b a e A ac ca a c e a c ce a c e e fa e be a a ce e e a f a e ac a e S AM II I a e c a ec e e f a e f a fac e P e MATH a MATH Se a a e a Mee MAE

MAE 4510-1. Engineering Design I. De c e e ea cc a fec afe e ab ae e c e c a ca ac P ec a ea a a ee e a P fe a a a e c ca f e e e e a e e a e a P e Se a Mee MAE

MAE 4511-3. Engineering Design II. P ec ab a f e e a a e e f e e f a ec a ca e ec ec a ca c e e a e e ca e ec e a a fab ca f ec e A cce f ec e e f c e f ec e P e MAE a c c e Mee MAE

MAE 4541-3. Cellular Manufacturing. Ce a a fac a bec ea e e a a f ca a e e l e a faa e a e e a f e f a ce a fac ce T c c e e ce e e a ce e ec e f ec ce a a ec e a e e a ea b ce a a fac P e MAE MAE a MAE Mee MAE

MAE 4542-3. Contemporary Issues in Manufacturing. I c ca a fac c e ac c e a e e a e a c c e a fac a e c ee c e e e e ca e a a e e e a ea P e MAE MAE a MAE Mee MAE

MAE 4550-3. Space Mission Analysis. S e f a acec af b e a a e ff ee e a f e ace e e e S acec af b e c e e c ec ca aa a e e a c e e a ec a P e MAE MAE MAE

MAE 4561-3. Analysis and Design of Experiments. Sa ca e e e e e f e e f effec e a fac e Baa ce ea e f a aa e ec e e e e e e a ea a ca P ce e f a c ec aaa aa e aaaec ee P e Se a ae a a e e ECE MATH 8 Mee MAE

MAE 5090-3. Space Mission Operations. De c be e ea be ee e ea c ce a e e e e e fa ace c e e a f c a cae a ace F c c e a aec aa a a a a ea acec af ea aa ce c ca a a aa e e S e ea a ae bec e a e e e a abe ea c ce C e e c ec ca a c e e e a ee e f ee e ace ea e aa ee aa a a b a e e c ca a acec af a a a c a P e MAE

MAE 5091-3. Space Environment. I c e e a effec f ee e c acec af a a a eae l e ec eae e ea a e T c c eea e e eea ecce a a be a e eea a e a ec cee a bac a ece b a a c effec P e PES e ae a MATH Mee MAE

MAE 5092-3. Remote Sensing in Space. C e f a e a ec f a e e e ec e T e ec e c e ca fae c a ea cea e a a e a a ae Bac effec a effec f a a ea eeae c e a e a ae ff f e a af ca ab e P e ECE a PES c e f c Mee ECE

MAE 5093-3. Systems Engineering. F c e S e E ee fe c ce ce a e e a fe ee ec ca e e e f c e ea a e e e A a ca c e effec e e c e e e e e e e bec e e Ma e a be ace e e ab a fe c c ec P e MATH 8 a MATH e ae Mee ENGR

MAE 5095-3. Engineering Simulation. C e ce e c a ec e f a T e a ca ee e ea aeee a e e be e e e A a c e ec a e e a ace f a a fac e c e ea a e f ec ea e ace e a P e MATH a MATH e a ae a Mee MAE a ENGR

MAE 5110-3. Solid Mechanics. F a e a a e ea c Te f e a a a e a e ea e ea ea c a e a e e a a PE Ca a e e ca ca be ea c a a e e c e a fac e c ac ec a c a cee P e MATH a MAE MAE

MAE 5115-3. Plates and Shells. S a ca a c a a fbea a ce ae a e c e e e e fc ae a e a ea f ce a e b a c a e a f Ha e e S b e ac a c a a ec e P e MATH MAE MAE a MAE MAE

MAE 5125-3. Advanced Dynamics. A a ca a c a a e e a Ha c e a a a ca c R e Ha e a A ca b e a c a a ea e Sab f ea e a ec e P e MATH a MAE

MAE 5130-3. Advanced Fluid Dynamics. Mec a c f e e a c e a a e a c a ba c e e ea Da D e a a face a e c f c e be e ac Re be a a a b a a e e c e be f c c a e D a e a P e MATH a MAE

MAE 5131-3. Computational Fluid Dynamics. A e e ff a e a e ca e f be a e a ce c e ca CFD f a e D c e a ec e a a f ffe e a e a a c be e P e MAE Mee MAE

MAE 5150-3. Advanced Vibrations. A ec c e ba c e ef c e e ee ff ee e a e a a e a c a f ce e ca c e a e e e e e e P e MATH a MATH MAE

MAE 5155-3. Mechanics of Composite Materials. P e e a a cea c a c e A ca cea c a a a e fa a a e e fa a e c e Fa e e e T a H a Ta W H e a a e eec c a e e c e C a fc e be a P e MAE MAE a MATH

MAE 5160-3. Finite Element Analysis for Mechanics. A c e e e a a FEA ce e ec a c be ec a ce a e a c f a a ca c a f FEA f ec a c a ca a c c a ec a c ea a fe e ec c e a c e be aa S e a ca a f a ea a e f e c ce P e MATH MAE MAE a a c e e c

MAE 5165-3. MicroElectroMechanical Systems (MEMS). I e a f e c a a ec a ca ce e e c ac e P e e f a e a S c a e f a e a ec a c e a ba Ta ce a ac a c e Se e e a a a ca P e MATH MATH MAE MAE ECE e a e

MAE 5167-3. MEMS Design and Fabrication Laboratory. I e a f e c a a ec a ca e ce e b c ac e P ce e e c e ca e c afe b RIE a CMP S face c ac Se e e a a a ca P e MAE

MAE 5205-3. Fracture Mechanics. F a e a c ce f c a fa e S e e e e c e cac a a a e e a ce ea Ea c Fac e Mec a c e c ce a G f

e e e eea e ae Ga J e a c ac a c a e e a a e e fa e Ga a ece e e e a e e a f a faca ec Pe MATH MATH a MAE Mee MAE

MAE 5210-3. Advanced Fracture Mechanics Re e f ea ea cfac e ec a c D a cfac e ec a c a e a b a c e e eea e a e c e a a e a e Ea c a cfac e ec a c c D a e e J e a CTOD a e e fa e l c c a a ec e Pe MAE a MATH

MAE 5391-3. Rocket Propulsion. Ba c e f c e e ef a ce e a c a a e e c P a e a e e e e e ce ba e e e e C e ca a e a c ea eec c a a a ce c ce a e eae Pe MATH a MAE Mee MAE

MAE 5402-3. System Dynamics. e a c ea e a a f a ce a b e c e a e E e a e a e a Va a a c e e e e e a a a e e a Eec ca c c a eec e c a ca e Pe MAE

MAE 5410-3. Astrodynamics. R e e e a a ca f ef a e a c e fa a c a e e S fc a e e e e ee c a f b c e ba e e e a a be be ea b e a c e c c e Pe MAE c e f c

MAE 5411-3. Space Operations Analysis. A a a ce ca a a c a ace e a Te a a e e e ca e ef e a a acec af a ec e T c e e f b ee a e ca e ce a e a a ca e a e Pe MAE

MAE 5412-3. Atmospheric Flight Control. Fee bac c fae ace e ce e a e a e e a c af a e A c af a e ab a e a a a Fe e c a a a a e B e N a Pe MAE a MAE MAE

MAE 5415-3. Flight Dynamics. A a ce ea e f e a c fa e c e c e a acec af R e e e f ea e a f c e e a a e f ce ea a a a e ba e a a e e e ab a a e I a ec e Pe MAE MAE ec e e b e c Mee MAE

MAE 5417-3. Analysis of Mechanical and Aerospace Dynamic Systems. U e a ac a c e a a e f ee e f e a a ee a a ca e f ec a ca a e ec ec a ca e e ce b e e e e ba e ae ace f a a f ea a ea e e ba ec e a e b a ec e c ab c ce a a a Pe MAE a MAE

MAE 5418-3. Multivariable Modeling and Control of Mechanical and Aerospace Systems M e e e e e a a c f a abe ec a ca a ae ace e T c c e e e e e a b e ab c ab ec a c e e Pe MAE

MAE 5419-3. Trajectory Optimization. O a f e ea a c e a ec e f ae ace e ce b Cac f a a a e ca a O a b a fe a c e e a e a e a a ec e b a a Tea e fe a a e a c a e ea a P ec e ca a Pe MATH MATH MAE a Ga a e e ea a eb a a a c ec e e

MAE 5421-3. Digital Control of Mechanical and Aerospace Systems. A ab a ba e c e a e e fee bac c fae ace e ce ec a f c e fac a e c e be e e e a a e a a c e e a e a e eec a a effec ea e c e e e a a e e a a e e a a a a ac af a e ab a e a a a a acec af a e c a c f e be e Pe MAE ECE

MAE 5424-3. Spacecraft Attitude Dynamics and Determination. G a a e e e ea e f acec af a e a c a a e e e a ec e Vec ea e f D b a a acec af a c e a c E e a e a e a a e A e a a eb a ca e e e a a a c e e a ec e Pe MAE a MATH

MAE 5425-3. Spacecraft Attitude Control. G a a e e e ea e fa e fee bac c ec e Re e fa e a c a c e a c a a a e e a e ec e c e e e e Safe a ac e a c a a e e Pe MAE MAE a ECE

MAE 5450-3. Robotics. D a c e a c a a acc f b c e ce F c e a c a a Pe MATH MATH MAE a MAE Mee MAE

MAE 5455-3. Flight Mechanics. A f a e a f e a ec a c fae ace e ce e a ea e e a c af a e R b e a f e ce ca e c a e e ae a ca ef ce a e e c a ec a Pe MAE MAE MATH a MATH Mee MAE

MAE 5456-3. Spacecraft Actuators and Sensors. M e f acec af ac a c e ee eac ee a e a a e c e ba M e f acec af e c e a e ea e a e ee a GPS Pe MAE a MATH

MAE 5495-3. Launch Vehicle Analysis. T e f c e e f a ce e e f a ce e a c a a ce c a e a a a c a ec a a b ec De e e f a c e ce e e e ba e e e e Pe MAE MAE Pe C e MAE

MAE 5510-1. Engineering Design I. De c e e ea c c a fec afe e ab ae e c e c a ca ac P e c a ea a a ee e a P fe a a a e c ca f e e e a e e a e a Pe Se Ga a e a Mee MAE

MAE 5511-3. Engineering Design II. P ec ab a f e e a a e e f e e f a e c a ca e ec e c a c a c e e a e e ca e ec e a a fab ca f e c e A cce f ec e e f c e f e c e Pe MAE MAE Mee MAE

MAE 5559-3. Manufacturing Technology and the Factory of the Future. E ee a ec e a e a e a e a a e e a e a a e ac e a ef e e e e a fac T c e c e e a e a fac b c e be a a e e e a f e a c a aba e a e ec ca e a ac e e face a a fac a a e e f a e Pe MAE MAE a MAE MAE

MAE 5560-3. Engineering Project Management. Ca ec e a c e f e a fac e e ee c c Fc a e a ca a e a c a a c a PERT CPM e ec e a e e A a f e c e a a ec W e a a e a e e e a ee b ca a a f c e e e ca a ec ca e Pe Ga a e a Mee ENGR

MAE 5570-3. Design for Manufacture. T e a ac ce f ac e a fac abe e T c c e c a fac ce e c ea a e DFM c ce e c a DFM a ec c a a e a a fe c c e e ee a e b a e e a a fac Pe ENGR a MAE Mee MAE

MAE 5571-3. Analysis and Design of Experiments. Sa ca e e e e e f e e f effec e a fac e Ba a ce ea e f a a a e ec e e e e e a ea a ca P ce e f a c ec a a a a a e a a a ec e e Pe Se Ga a e a a e e ECE MATH 8 Mee MAE

MAE 5574-3. Cellular Manufacturing. Ce a a fac a bec ea e e a a f ca a e e l e a faa e a e e a f e f a ce a fac ce T c c e e ce e e a ce e ec e f ec ce a a ec e a e e a e a b ce a a fac Pe MAE MAE MAE MAE a MAE MAE Mee MAE

MAE 5575-3. Contemporary Issues in Manufacturing. I c ca a fac c e ac c e a e e a e a c c e a fac a e c ee c e e e e ca e a a e a e e e a ea Pe MAE MAE MAE MAE a MAE MAE Mee MAE

MAE 5593-3. Space Sensor Systems. I c a b ea ace ba e e e a aa f ec e T e e a e f ace c a a c e c f c a e a ee a e a a e fa e IR e a a e a e e c ca EO e ce bec e e A a e e e aa f a ac be c e Pe MATH PES a MAE

MAE 5595-3. Space Mission Analysis. S ace e e acec af c ca c a b e e c a c e e e a c ca e e e a a ee e f acec af e e e e a e b e e e e Pe MAE

MAE 5596-3. Space Mission Design. A ca e c e c c e e e e fe ee b e ec S e be a e c e a e a acec af b f ec e Pe MAE

MAE 6415-3. Robust Multivariable Control. T e a a ca f a abe fee bac c e a fac e abe e f a ce a ab b e e face f ce a e a c f ec e e e C a a ce a f ce a a b e a a M a abe e ec e a ca c fe ec ec a ca e a acec af Pe ECE

MAE 6430-3. Optimal Estimation Theory. T e f a e a a ca ae ace a a a a e a c e e a e c a ce e f a b e ab e e eec a e ca e Pe ECE ECE

MAE 6432-3. Advanced Astrodynamics. S ec a e e a e ba c e e a e a a e e b f ce a ec e e A c e a ec c a e ce ee b be Jac b e a a e e c c e a Ha a ec a c c ca ca a f a a e Ha Jac b e a a e b O e a a e e Pe MAE e a e

MAE 7000-1 to 12. Master's Thesis. F a e e ec a ca a a e ace e ee Pe P a e e e fac a

MAE 7500-1 to 12. Master's Research. Re ea c ce f a e a ec a ca a a e ace e ee Pe P P a e e e fac a

MAE 8000-1 to 12. Doctoral Dissertation. F c a e a ec a ca a a e ace e ee Pe P a e e e fac a

MAE 9110-1 to 3. Special Topics: Undergraduate. A f e eca b ec ec a ca a a e ace e ee e a a e e e Pe P a e e e fac a

MAE 9400-1 to 3. Independent Study: Undergraduate P e f e e e ec a ca a a e ace e ee b e e e c e e e b a fac e be Pe P a e e e fac a

MAE 9500-1 to 6. Independent Study: Graduate. P e f e e e ec a ca a a e ace e ee b e e a a e e c e e e b a fac e be Pe P a e e e fac a

MAE 9510-1 to 3. Special Topics: Graduate. A f e eca b ec ec a ca a a e ace e ee a a e e e Pe P a e e e fac a

MAE 9520-1 to 3. Graduate Seminar. A a a e e ce f a e e a e e a a Pe P a e e e fac a

MAE 9999-0. Candidate for Degree. Ca a e f e e e Pe P a e e e fac a

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ASL 211-3. American Sign Language Intermediate I. A e ca S a a e a e e e a e e e a a f e c e e a e a e Pe AS e a e

ASL 359-3. Deaf Culture. E a e e c e f e a f e e Tec e e e e c a e a e a e f e e a f c A e ca Pe AS a AS Mee F CS

ANTHROPOLOGY

ANTH 103-3. Introduction to Human Origins. E f a a c e f e be e e a e a a e C e a e a c e e a e e f e a c a A e f AS Na a Sce ce a e a e e e GT SS

ANTH 104-3. Introduction to Cultural Anthropology. I c e a a e c f c e c a c a a a a e a a a e J a e be e f c a a ANTH A e f AS S ca Sce ce a G ba A a e e e e e GT SS

ANTH 132-3. Evolution/Creationism Conflict. C e e e e e a c c c e be e e e a c e a a e a a f e a a e e f f e a Sce c e e ce e e a a be e e Se ca e a be a ce e e ce f a a a e

ANTH 220-4. Survey of Prehistory. T e ba c c ce a e c e f ac a e a a e f e a e e e e A e f AS S ca Sce ce a e a e e e

ANTH 230-4. Survey of Biological Anthropology. Ba c c ce e f a e a ca a a a ca be a f a a e A e f AS Na a Sce ce a e a e e e ANTH S e f C a A Ba c c ce e f c e A e f AS S ca Sce ce a G ba A a e e e e e Pe ANTH e a

ANTH 241-3. Cultural Diversity in the United States. E a e e ce a c a e U e S a e f a a e fa ca e e c e l a e e c c a ac e ba a e e a ce

ANTH 280-3. The Nature of Language. I c ea ca f a e A e f AS S ca Sce ce a e a e e e Pe ANTH e a

ANTH 300-3. Quantitative Methods in Anthropology. A e f a a e e a e a e f e e e A e e eca be f b a ca a ac a e ca a e a c a a Pe C e e a c e f c

ANTH 301-3. Sacred Spaces of the World. A e a a f e e c e e Je C a l a c H B Me A e ca a A Ta a a e a a f e a

ANTH 304-3. Women Around The World. P e a ba c c a e ec e e a a ca f a e e a e a e e a e a e e ac a e e e ce e c e f e e e f ffe e e f c e e A e f AS S ca Sce ce a G ba A a e e e e e Pe ANTH ANTH WMST WMST e f c Mee WMST

ANTH 307-3. Darwinism. Ac ca e a a f Ca e Da O f Sece a Te De ce f Ma a e c e a c c c e e ca e ec e A e f AS S ca Sce ce a e a e e e e Pe S e a

ANTH 309-3. God, Darwin, and Morality. E e e a ca f Da Te f E b a a e ec Offe e E e e S e

ANTH 315-3. Anthropology of Art and Expressive Culture. T c e ce e e a ca fa ae ec a e e e c eb c e e e a c c a e a e S e e a e ae ec e e a f ab ec e c e a e f Pe ANTH ANTH A H

ANTH 317-6. Field Practicum in Prehistoric Archaeology. A ac c e e e e a a fa fe a e c ac ae ca ec a e a a c ce e a W e a e c e e a e e e ce ba c ac ae ca e ec e c a a e ca a ec a a fac a e Pe ANTH

ANTH 318-3. Archaeology and Public Policy. E e e e f e e a bc e e e e a e f ce e fc a e ce e a S e a e a e e c e a e a a e ce ca ce a e e fc a a a ba

ANTH 319-6. Field Practicum in Historical Archaeology. A ac c e e e e a a fa fe a a c ae ca ec a e a a c ce e a W e a c e e e a e e e ce a c e a a a ba c ac ae ca e ec e Pe ANTH

ANTH 321-3. Lab Techniques in Archaeology. P e a e e e ce ca a a a a e a f a c ae ca e T c c e a a c e a ca a e a c e a a fac a a a e e ca ec a a affec e e c be a a e a e e a a Pe ANTH c e f c

ANTH 322-3. Prehistory of North America.

T e e f N A e ca e a e e f e e e a e A e ca c e a a e e a e e e Pe E e ANTH ANTH ANTH c e f c

ANTH 323-3. High Civilizations of the Americas. Pe c ca cc a a a f e A ec e Ma a a e l ca l c e c f e a c ae ca e e e c a a a e a e ce e e e e Pe ANTH c e f c

ANTH 324-3. Paleolithic Archaeology. T ec a e e ce f a e e f e e a e e a e ba e f e P Pe ce e e Me ca A ca cc e f e a e Pe ANTH c e f c

ANTH 325-3. The Prehistory and History of Native American Cultures of the Southwest. T e e a e a f e l a c e f e S e A e f AS C a D e e e e Mee EST

ANTH 326-3. Agricultural Origins and the Emergence of Urban Society. T e e ce f e fa c a ec e a e e e ce fc e ca a ca b e a e A e f AS S ca Sce ce a e a e e e Pe ANTH ANTH a c e f c

ANTH 327-3. Historical Archaeology. H a ac ce f e b c e f ca a c ae C e a c ae ca e a e e f c e be S e e e e e e ec e b ca a c ae b ac e a c ca e a e a c a e e A e f AS S ca Sce ce a e a e e e e Pe ANTH c e f c

ANTH 328-3. Archaeological Approaches to Gender and Sexuality. C ec e a c ae ca a a c e e e a e a a c e e S e c e e e ca a e ca ca f e e a c ae ca a a c e a a a e a ca e e a e f e Pa e c e e ce a Pe ANTH e f c Mee WMST

ANTH 329-3. Prehistoric and Historical Archaeology of Colorado. T e ec ca a e a ca e f e Sa e f C a a a e a c ce f a c ae ca e e a c e e a c a c a T c e c e e a a a c ae a e e a e a c e a a ca e c a c a e e Ce e a Sa e Pe ANTH ANTH

ANTH 332-3. Primatology. Be a ec a e f a a e E a e e a e a e e a a f ca

a e a be a a A e f AS Na a Sce ce a ea e e e Pe ANTH ANTH c e f c

ANTH 334-3. Human Evolution. A e a e e a a f e f e e ce f a e e a f c a a a f a c e a e c e f a a e e c A e f AS Na a Sc e ce a e a e e e Pe ANTH ANTH c e f c

ANTH 337-3. Human Biology and Ecology. T e f a a a a a a f a a a a ec ca f a e l c e e a c be e e c a a b ca f a c e a a e c a a ca a e c f e a A e f AS Na a Sc e ce a e a e e e Pe ANTH ANTH c e f c

ANTH 341-3. Ecological Anthropology. E a e e e a be e e c e a e a a e e a e a e l f c e e e f c a a a e a c a e c ca a e a c e a e f a abe a a e ce a a e e Pe ANTH ANTH

ANTH 342-3. North American Indians. A e f e a e c e f A e ca f Me c E a e a b c e a e a a f c a a a A e f AS C a D e e e e Pe ANTH c e f c Mee EST

ANTH 345-3. Social Organization. A a f ca a a a a e e e a e a f a f c Pe ANTH ANTH

ANTH 348-3. Psychological Anthropology. S e e e f c caa a e a e c c a e f e a e e e a ea e a f fe e a a e ea e Tec e c e e e f be a a e a a c c a e e c e Pe ANTH PSY c c e

ANTH 349-3. Culture Theory. A a f ca e e f c e Pe ANTH ANTH c e f c

ANTH 351-3. The Ethnology of Death. A c c a c e a fa e a a e e e ce Pe ANTH ANTH

ANTH 381-3. Language, Culture, and Society. A e a a f e caa a c a f c f a a e e a e e f c e a e e a a c Pe S e a ANTH 8 e f c

ANTH 397-3. History of Anthropology. H f e fa f e e a e e a c f a c b a e e ce Pe ANTH ANTH c e f c

ANTH 409-3. Classics of Anthropological Literature. A a fca ca e a e e fa Pe ANTH ANTH ANTH c e f c

ANTH 420-1 to 3. Advanced Topics in Archaeology. l e e f e e ce c a c a e a e

ANTH 429-3. Archaeological Method and Theory. A e a e e f e a e a e e a c a e c e a a e e e e e a e e e f e c e a e a e e c e e ca a e e ca e ba e Pe ANTH ANTH

ANTH 430-3. Advanced Topics in Physical Anthropology. l e e f e e c e a e a b a a e be a a e c l f f e e a e a f f e c a e a Pe ANTH ANTH ANTH 8

ANTH 440-3. Advanced Topics in Cultural Anthropology. l e e f e e c e c a a a l f f e e a e a f f e e ca e a Pe C e f c Mee EST

ANTH 471-1 to 6. Internship in Anthropology. A a f a f a e a e e ca Pa c a e e e f e e e e a e e a e e ce e a e ca e e a S e a e e a e a e A a Pe e a e e a e a f e c a a

ANTH 480-3. Advanced Topics in Anthropological Linguistics. l e e f e e c e a ca c l f f e e a e a f f e e ca e a Pe C e f c

ANTH 498-3. Senior Seminar in Anthropology. A e e e e e ca c c e e e e a e e ca e e e a a e a a T c a b e e e Pe ANTH Se a

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ANTH 700-1 to 6. Masters Thesis.

ANTH 940-1 to 6. Independent Study in Anthropology. H a c e be a a e C e f c e e

ANTH 950-1 to 4. Indepdendent Study in Anthropology. Pe C e f c

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ART HISTORY

A H 100-3. Languages of Art. A c a a a a e c e a a C e e a a e a e e e e e e c a e e ffe c e a b c e c e c a e e ca C e f VAPA a A e f AS H a e a e a e e GT AH

A H 150-3. Art and Ideas: Michelangelo to Basquiat. A c e f a f e e a a c e e a e c e O e a VAPA a b e e f e c c e a a a Pe e e f a e a e a c e

A H 200-3. Survey: Special Topics. Se e c e f c e a c e f a f e c e Ma be e e a e f c e f e c f f e e

A H 250-3. Art Matters. A e a f a e a e ca e e A c e e a c e e a a e a e a c a e e b e e c e e e a VAPA a a c c e a a VAPA e c c e a a a e e e a e e e e AH AH b e e f e e c e a

A H 280-3. Survey: Ancient Art. A e f c e a a a a c e c e f e Pa e c e R a e T e A f Me a a f E A a a G e e c e a R e b e e a c e a A e f AS H a e a e a e e e

A H 281-3. Survey: Medieval Art. A e f e a f e a C a B a e e a Me e a R a e e a G c e A e f AS H a e a e a e e e

A H 282-3. Survey: Renaissance, Baroque, and Rococo Art. A e f e a c e a a c e c e f P Re a a c e l a e E e a c e a a a e a c f e c a c e a c a e E a e a a a c a a e e c e c a a f c c a c c e A e f G b a A a e e e e e e

A H 456-3. Perspectives on Art. A e a a f e e c e e a e a c c a a e e c a c e e a a c e f f e

A H 481-3. Art of the Italian Renaissance I. A f a e e e e e f a c e a a c e c e a e e e c e c e f Re a a c e l a f a Pe AH 8 e a e

A H 482-3. Art of the Italian Renaissance II. T e a e Re a a c e a a e T e a f c e l a e c a e a Mc e a e T a a Ve c e b F e e a R a Ma e e a e e Caa a Pe AH 8 e a e

A H 483-3. Northern Renaissance Art. H f a e E e f e a e e c e a e a e a f e c e Pe AH 8 e a e

A H 489-3. Nineteenth Century Art I. H f e e c a c a R a c e e E e a a e c a e fe e c e e a f Da G a l e Ge c a a De a c a e a c e a f a c e c e a c e f 8 8

A H 490-3. Nineteenth Century Art II. A f e e e e f Rea l e P l e a S b Fa c e a E a f 8

A H 491-3. Modern Art: 1900-1945. A e e a c f e f e a a e a e be e e 8 a a e a e e a a f a f e e a a a e f c a e

A H 492-3. Art since 1945. A e e a c f M e a P M e e a a a e a e e a a f a a a c e c e f e e a a a e f c a e Pe A H e e e

A H 493-3. Contemporary Art Theory. C e e e c a a b a a c e b a e e e e f c a e a e a a c e c b e e e c a e a e a c c e f c e a a Pe AH 8 AH 8 b e f e c

A H 940-1 to 4. Independent Study in Art History. l e e e S A H e e a a e e e a f e f e b a a e e

BIBLIOGRAPHY

BIBL 101-3. Introduction to Library Research. l c e e f b a e c e a e e a c a e a E a e a e e a c e e De e f e e a a e e a c e

BIOLOGY

BIOL 100-3. Biology in the Modern World. De e f e a a Te c c e f b e e e a be e e a a e e e C c e c e e e e e e c a e c Sa e e AS a a c e c e e e e T be a e a f e AS ab a e e e Ma c a c e f e a Fa S GT SC

BIOL 101-3. Introduction to Human Biology. l c c e c e c a e a e e c e a f c f c e e a a e f e a b

BIOL 105-3. Personal Nutrition. De e f e a Ac e e e ba c f a ab fac e c a a e e e a f c e e e E a a ca f b ca c e e e e a

e Tec e c e e a ae e a ee a eae ac f e a e Sa e e AS a a ce ce e e e S S e Mee HSCI

BIOL 106-1. Introductory Biology Laboratory. Ma be a e c c BIO a f e AS ce ce e e e a ab e e e GT SC

BIOL 110-3. General Biology I: I c Ce B De e e a e e a fac a c e e f ec a a c e e f a a B a a e a f c e a e c e ec a a ce a b P e H c c e c c e e a CHEM CHEM

BIOL 111-1. General Biology I Laboratory: I c Ce B ab a T be a e c c BIO A e e fe e e e e a a e ba cc ce fce a b a e a ab a e e e ce Fa

BIOL 113-4. Plant Biology. S c a a f c a c a a ce c f a S e e a a a a a a e a e a f a a c e e a e e ab e a a fc e a a e e a e e a a e a Pe BIO a BIO

BIOL 114-3. Introduction to Health and Exercise Science. De e f e a l c e e e e e c e ca e a f c b c e e a c e a a a e e c e a A e f AS Na a Sc e ce a e a e e e

BIOL 115-3. General Biology II: Organismic Biology. Ac a f BIO e a e e Te e e f c e a f c e a e c e a e e c e f e b ec be a e e c a e A e a e c e f c a e f e a c c a bac e a f a e a e a S Pe BIO a BIO e a e

BIOL 116-1. General Biology II Laboratory. T be a e c c BIO ab a e e ba cc ce f a a a a a a S

BIOL 151-3. Environmental Science. I c a c ec a c e a b ca c e a f c E e a c a a a a e a c a e a a a a e a e e a e e e c f a a e a e e c a a a A e f AS Na a Sc e ce a G ba A a e e e e e Mee CHEM

BIOL 153-1. Environmental Science Laboratory. W BIO a e e AS ce ce e e e a a ab e e e Fa S Mee CHEM

BIOL 201-4. Human Anatomy and Physiology. Pa ec a ab Ac e e e f e c e a f c f e a b C e ba c a a ca e ce e a e f e e e a e e a ce a e Fa

BIOL 202-4. Human Anatomy and Physiology. Pa ec a ab Ac e e e f e e e a e c e ca a c a a c e e a e e a a e c e e S Pe BIO

BIOL 203-3. Microbiology. P e e a f e ba c a ec f c b ab a b ca e ec e S bec a e c e c b ca c ce a e a e f e e e f c a ba e c a f c a e a c e ab e e c a ec Fa MUST A SO REGISTER FOR BIO MICROBIO OGY AB Pe BIO BIO BIO a BIO CHEM a CHEM BIO BIO CHEM a CHEM

BIOL 205-3. Nutrition for Health Sciences. A c e e c e f e e a f ea ce ce ca e e E a be e a e f b ca a e e a fac c e ce a e e a a a T e e f e e e e ab a a be c e e Tec e a f c e e ca a e f e e a e ce e Eac e a e a e a a f e Fa l e Pe BIO a BIO CHEM a CHEM Mee HSCI

BIOL 206-3. Biology for Computer Scientists. I c ea e f ec a a ce a b T c e ce c e e e e a e e c e e ce e e ce a c ca ec a e S e c e e a c e ce ce bea e e Pe MATH

BIOL 213-1. Microbiology Lab. MUST BE TA EN IN CONJUNCTION WITH BIO A e e f ab a e e e e e e ae e ba cc ce f c b a e e ce Pe BIO BIO BIO a BIO CHEM a CHEM BIO BIO CHEM a CHEM

BIOL 300-3. Biology Statistics. A c e c e c e ce a ce e e ce c e e a c E a c ca a ac e e a a ce c a ca e f a a b ca a a a e e a c ec e a e Fa Pe MATH

BIOL 302-3. Cell Biology. fe ce e e a ea f c e a f c a a e e a ec a e e P ca a c e ca e e f a e e a c ce a e a ce a Fa S Pe BIO BIO BIO BIO CHEM CHEM BIO BIO CHEM a CHEM

BIOL 310-3. Microbiology: Bacteriology/Mycology. Bac e Mc a e a a ce f e e ab a e e c f bac e a ea a f Pe BIO a CHEM C e BIO

BIOL 311-1. Bacteriology/Mycology Lab. ab a c e acc a BIO Pe BIO c c e ece

BIOL 313-3. Plants of Colorado. A c e e ca f a a e f e e a fC a E a be e a c a ec e ab a e S e

BIOL 314-3. Microbiology: Virology. V a e c e c e e c fb f e Pe BIO a CHEM Mee BIO

BIOL 315-1. Virology Lab. Re ea c e e c b abc e Pe BIO a BIO

BIOL 321-4. Human Physiology. F c e e f e a cc a e e e c e c a cc a e a e ce e e a e c e e f c e a b Pe BIO BIO BIO a BIO

BIOL 322-3. Animal Physiology. A e a a f e eb a e a e eb a e a e e e be f a ca a a a

BIOL 323-3. Plant Physiology. Ac e e e f e f e c a E a ec a a ce a b Pe BIO BIO BIO BIO BIO

BIOL 330-3. Exercise Physiology. Ac e e e c c e e c b e effec f e e c e a ca f c Tec e e c be e e be e f e e c e a a a a a c ec a f e e a a a Fa Pe BIO a BIO

BIOL 345-4. Anatomy and Exercise Science: F a e a a A ca G f C e e a e c e e a a a a c e c c e f e e a ce ce c e b ec a c c a ec a ec e ab e e PGM a E e c e Sc e ce e a c e e e e a f e e c e ce ce a ca f Mee BIO

BIOL 360-4. Histology. Ac e e e f ba c e e e e c a a f c a e e a f e e e a Tea e f ce a a a c e a e e e a e a e e E a e e b a e c a be S e e e a Pe BIO BIO BIO a BIO O e e a a e e

BIOL 361-3. Developmental Biology. ec e E a e ce a e e e a e e b a e e a e e e e a a a Pe BIO

BIOL 370-3. General Ecology. A e fe e a e a f a a a a T c c e e ca ab c a b c fac a c a ec e a c a e e a a a a c b e S e e e a

BIOL 375-4. Conservation Biology. T e a f c e a ca f b ca a ec ca c e e e e b e U a e ce a c e e e f b ca e a e e a e Beca ec e a b e a c a a ac e ca e a ec c a e ca e a e a c e Pe BIO BIO ec e e J Se G a a e e Mee GES a BIO

BIOL 383-3. Genetics. Ca ca a ec a e e c c e T c e c e c e e e c e f c a e a e ca a ec b a DNA ec a e a a a e e c S Pe BIO

BIOL 384-2. Genetics Laboratory. ab a c e e e e a e c ce f Ge e c a e c be ec e BIO 8 S Pe BIO 8 e e c c c e e e Mee BIO

BIOL 391-3. Immunology. A ba c f c ea e b c e ca ca a e e c a ec f e e e a c a a Pe BIO

BIOL 400-1 to 4. Current Topics in Biology. S e c a e c a c e e a e c ee S bec a e c a e e e a c Te c a e e e e be e c e e e e e a c e Ma be e e a e f c e e a e e e e S Mee BIO

BIOL 401-1. Seminar in Biology. Re e a c f e e e e a c bec S e e e e a Fa S Pe Se a

BIOL 403-3. Health and Fitness. A e e fe e c e e c a ea e a a ec e c a e c a ec Pe BIO a BIO

BIOL 405-3. Technology Transfer and Biotechnology. Te e f c e f e ab e ce f Tec Ta fe f aca e c c e a e c e c a a fa c Pe C e f c Mee BIO

BIOL 408-2. Endocannabinoids and Medical Marijuana. E a e e e fe ca ab a e ca a a a e a f e ca a ca a e c e e c e e e c e a e e l e fac a ce a e a c e e Pe BIO c e

BIOL 409-3. Methods in Immunology. I ce e a a e fc e ec e l c ce c e c e e c e

a We e b a DNA ec PCR l c e
e e afe a a a a Pe BIO a
BIO Mee BIO

BIOL 415-4. Field Botany. T c c e a
fe c ce e a c fe e a e e f
e e f e f c a bac e a
b e ee e a c a a a c a a
e a a e C a f
M a e ba e a a e fe e l c e
ec e a e Pe BIO BIO Mee
BIO

BIOL 420-4. Economic Botany. A a c b
c e e b a c c e b e e
E a be a a a ef be
a a e c e e ba e c e c a c e
a a c c b e e a e Pe BIO
a BIO

BIOL 423-3. Injury Prevention and Treatment. A
e f c a e a e e c a e
e a e e a b a a e e Pe BIO
a BIO c e f c

BIOL 425-3. Evolution. A c e e e a a f
e e a f c b e a a a a
c e f c e e e e e
f e c a a a a c a
f c S e a

BIOL 428-4. Mammalogy. e c e a b a e
e O e a a a a e a c
b e c a a f a a Fa
Pe BIO BIO BIO a BIO
Mee BIO 8

BIOL 429-4. Plant Communities of Colorado. A
e a a f a a e b a e C a Ma
a c e b e e a e e c e f
e e a fac c a c a e a a f
Re e e Pe GES c e f c
Mee GES a GES

BIOL 430-3. Advanced Nutrition. A c e e e
f e e e e a e a e
e a b e e a b T c e
e e a b a f e b c e f
e fa a c a b a e Fa Pe BIO
BIO CHEM CHEM Mee
HSCI

BIOL 431-3. Advanced Immunology. A a a c e
c e f a e e e
c c e Pe BIO Mee
BIO

BIOL 435-4. Advanced Functional Human Anatomy. A
e a a a c a a a f c a
c e e a c e e a e a e a e a
e a c f c effec e a a a a a a
a e a a b a c a a a a c a a a
f e c a a c a e a e e e c e
a e c e e Pe BIO BIO
BIO a BIO Mee BIO a HSCI

BIOL 443-3. Animal Ecology. P b e c c e e
e b f a a a e e a
e a c e a e e e a e c e e
c a e c e a e e a a a e e a
a e a e a a c e C a c
c f c a Pe BIO BIO BIO
a BIO Mee BIO

BIOL 444-2. Winter Ecology. A a c e
e a c e e e a a a b e
a f e l c e e a
b e a a a c a a a a e
a b e a a e e a e e e
Pe BIO BIO BIO a BIO

BIOL 455-3. Biomechanics/Kinesiology. A c
e e c a c f a e e l c e
e a c a f e a c e c a
c e a a a c a e c e a
e e Pe c e l e a a Ce e f
A a c Re e a c f a a c a e S Pe
BIO a BIO

BIOL 460-3. Biomechanics of Musculoskeletal Injury. A c e e e e f e b e c a c f
c e e a T e c e e e a
b a e f c e e a e a c a a
e c a effec f e a
b e c a c e c e c b e a a e e
a e e Pe BIO A a e a e
Mee BIO

BIOL 467-3. Applied Molecular Genetics. e a
f a e a c e f c e a b a e
a e e a b e c e E a e e
c e c a a b c a e e f c e c a c
e a e c e e a e a e
e c e e e c a a c e e e a c e
Pe BIO 8 BIO a BIO 8 OR BY
CONSENT OF INSTRUCTOR Mee BIO

BIOL 471-1 to 12. Externship in Biology. A a
f a e a e e c a P a c c a
e e e f e e e e e a
a e e e e c e a e c a e e a A
a e f e e a e a e e
e a e e a e S e e e a e
e c e e S e a e e a e a
e a c e e e f e e
l e c e a f e e e e a
a e a c a e e e e e b e f e e a
e N e E e b e e f e f f c a
a a e f b c a e e
e e c a c c a e e a c a b a e S e
e a f a c b e f e e e f a e e
F a S

BIOL 472-1 to 12. Externship in Biology. E e c e
Sc e c e Fa S

BIOL 473-1 to 12. Externship in Biology. B c e
Fa S

BIOL 474-1 to 12. Externship in Biology.
B e c Fa S

BIOL 477-3. Human Metabolism. A a a c e c e
e e c e b c e T c e
e e e e e f e c e c e a e T e e c
e a e e f c e e c e c e a
a e e e e e e a c a a c a a
a e e a f e c e c e S Pe
BIO Mee BIO a HSCI

BIOL 479-3. Laboratory Methods in Exercise Physiology. A c e e e e a c e
e a e a a e a c e a c c e e a
a a a e e c e T e c e e e e a e
e c e a b a e c e f a e
a e f a c e a f a e a b c
a Fa P e C e f c Mee
BIO

BIOL 480-3. Advanced Practice in Exercise Physiology.
De e e a c e e c e e e e c e
b c e e e c e e a e a a f a
e f a c e E e f a b a Me
E e c e l Pe C e f c Mee BIO
8

BIOL 481-3. General Biochemistry. T c c e
c e c f a a c e a f c
f e e f e e e e c a a
e c e e e a e a b c a b a e
a a a c e e e c a e a b c c a
e Fa P e BIO a CHEM
Mee BIO 8 CHEM 8 a CHEM 8

BIOL 482-4. General Biochemistry. C a f
BIO 8 8 T c c e c f e a b c
e a c a a a c a
e c a a c e c e c e c a c e a b
f e c a c b e
a f c f a c e c e c DNA RNA
a e b c e f b c e a e a
e c a c S Pe O a c Ce

BIOL 483-3. Biochemistry Principles. A c e e e
e e e e c c e e c a a
e a b f c a b a e a e
c a a e a a f e e c
f a S Fa Pe BIO BIO a
CHEM Mee CHEM 8

BIOL 484-3. Molecular Biology. F c e e e c
e e a c a e a c e e
e e a e a T c c e a c
e c b a a a Pe BIO 8
c e f c Mee BIO 8 CHEM 8
a CHEM 8

BIOL 485-3. Molecular Biology Laboratory. A
a b a c e e a e c e M e c a
B c DNA c a a a f e e
e e Fa Pe BIO 8 8 a BIO 8
Mee BIO 8

BIOL 486-3. Biochemistry and Molecular Biology Laboratory. De e e a b a a
e c e E e e a e e e c e e a e
c e a a c a f c e e c e a e
e f e a S e c e e
c e f a a e e c e a e e e
Pe O e e e e f b c e c e b a
e e e e f a c c e Mee BIO
8 CHEM 8 a CHEM 8

BIOL 488-2. Principles of Flow Cytometry. A c e
e e c e e a e c e
a b c a a c a f c e e e
e c e a a a c e T c b e e
c e c e c e c e e a a
c e c a a a a c a b c a
e e a c a c c a e c e Pe U e
b a

BIOL 490-4. Pathobiology. De e a f e
b a a e e a fe e T e
c e c e e c a f a e a e f
c e a a a e c a e Ma
a e e e a b e b e c e a b
e a a e a f a a e a
S e a Pe BIO BIO BIO
O e e a a e e Mee
BIO

BIOL 493-3. Research Practicum in Genetics.
a b a c e f a a c e b e a
a a e e e e e e e c a b
c b a e e c a b e c C e c e
e e e a e a b a e c a e e a
a e e a f a a f a e c
Pe BIO 8

BIOL 494-3. Research Practicum in Biochemistry.
a b a c e f a a c e b e a
a a e e e e e e b c e C e
c e e e e a e a b a e c a
e e a a e e a f a a f a a
e c Mee e e e Pe BIO 8 BIO
8 BIO 8 a c e f c

BIOL 495-3. Research Practicum in Exercise Physiology. a b a c e f a a c e b
e a a a e e e e e e c e
a C e c e e e e a
e a b a e c a e e a a
e e a f a a f a e c Mee
e e e Pe BIO BIO 8 a c e
f c

BIOL 497-3. Research Practicum in Immunology.
a b a c e f a a c e b e a
a a e e e e e e l C e
c e e e e a e a b a e c a
e e a a e e a f a a f a
e c Mee e e e C e f c
e e e e e Pe BIO BIO
BIO a BIO

BIOL 500-1 to 4. Current Topics in Biology. S e c a e
c f c e e a e c e e b e c
a e c a e e e a c
a e f f f e T e c a e e e e
b e e c e e e e e e c e e Ma b e
e e a e f c e Pe G a a e e
c e f c Mee BIO

BIOL 501-1. Seminar in Biology. Re e a c f e e eeac bec S e e e a Fa Pe Ga ae a

BIOL 503-3. Health and Fitness. A e e feece ec a ea e a a ec e c a eca ec Pe BIO a BIO

BIOL 505-3. Technology Transfer and Biotechnology. Te e f c e f e ab e ce f Tec Ta fe f aca e c c e a e c eca a fa c Pe Bac e e eeC e f c Mee BIO

BIOL 509-3. Methods in Immunology. I ce e a a e fc e ec e l c ce c e c e e ce a We e b a DNA ec PCR I c e e e afe a a a a Pe BIO a BIO Mee BIO

BIOL 514-3. Virology. Covers viral structure, genetics and pathogenesis. Pe Pe f c Mee BIO

BIOL 515-4. Field Botany. T c c e a fe c ce e a c fe e a e e f e e f e f ca bac e a b e ee e a c a a a c a a e a a e C a f M a e ba e a a e fe e I c e ec e a e Pe BIO a BIO Mee BIO

BIOL 523-3. Injury Prevention and Treatment. A e f ca e a e e e ca e e a e e ab a a e e Pe BIO a BIO c e f c

BIOL 528-4. Mammalogy. ec e ab a e e O e a a a a e a c b ec a a f a a Pe BIO BIO BIO a BIO Mee BIO 8

BIOL 530-3. Advanced Exercise Physiology. ec A a ce ea e f ca ec a e eb e e a c a a e e a e e Pe BIO c e f c

BIOL 531-3. Advanced Immunology. A a a ce c e l f a e e e c l c e Pe BIO Mee BIO

BIOL 535-4. Advanced Functional Human Anatomy. A e a a ac a a a f c a c eea c e e a e a e a e ac f c effec e a a a a a a e a a a b a c a a a a a c a a a f e ca a c a e a e e e c e a e c e e Pe BIO BIO BIO a BIO Mee BIO a HSCI

BIOL 543-3. Animal Ecology. P be c ce e e b fa a a e ea eac e a e e e a e c ee ca e c e a e e a a e eca a e a ea a c e C ac c f ca Pe BIO BIO BIO a BIO Mee BIO

BIOL 544-2. Genetics Laboratory. ab a c e e e aec ce f e e c a e c be ec e BIO 8 Ha ab a e a ec a ec e S Pe BIO 8 Ge e c c c e e e Mee BIO 8

BIOL 545-4. Anatomy and Exercise Science: F a e a a A ca G f C e e a e c e e a a a a c e c c e f e e a ce c e c e b ec a c c a ec a ec e ab e e PGM a E e c e Sc e ce e ac e e e e a f e e c e ce c e a ca f Mee BIO

BIOL 555-3. Biomechanics/Kinesiology. A c e e c a c f a e e l c e e a ca f e a c e c a c e a a a ca ec e a e e Pe c e l e a a Ce e f A a c Re e a c f a a ca e S Pe BIO a BIO

BIOL 560-3. Biomechanics of Musculoskeletal Injury. Ac e e e e f e b ec a c f c e e a Tec e e e a ba e f c e e a e a ca a ec a effec f e a b e ca c e c e c b e a a e e a e e Pe BIO A a e a e Mee BIO a HSCI

BIOL 567-3. Applied Molecular Genetics. ea f a e a c e f c e a b a e a e e a b ec e Ea e e ce ca a b ca e e f ce c ac e a e c e e a e a e e c e e e caa c e e a c e Pe BIO 8 BIO a BIO 8 Mee BIO

BIOL 570-4. Conservation Biology. T e a f c ea ca f b ca a ec ca c e e e e b e U a e ce a c e e e f b ca e a e e a e Beca ec e a b e a c a a ac e ca e a ec ca e a e a e a c e Pe BIO BIO ec e e Mee GES a BIO

BIOL 571-1 to 12. Externship in Biology. A a f a a e e c a Pac ca e e e f e e e e a a e e e c e a f e e a e a e e e a e e a e S e e e a e e c e S e a e e a e a c e e e f e e l e e a e e e e a a e a c a e e e e b e f e e a e N e E e b e f e ff c a a a e f b c a e e e e c a c c a e e a c ab a e Fa S

BIOL 572-1 to 12. Externship in Biology. Exercise Science. Fall, Spring.

BIOL 573-1 to 12. Externship in Biology. Biochemistry. Fall, Spring.

BIOL 574-1 to 12. Externship in Biology. Biotechnology. Fall, Spring.

BIOL 575-1 to 2. Biology Journal Interpretation and Research Seminar. I e e e a a e e f e a b e a fac c e e e a c a c e e e c e b e e a e T c c e b c e c e b e c e e e c a a b

BIOL 577-3. Human Metabolism. A a a c e c e e e c e b c e T c e e e e e e f e c e c e a e T e e c e a e e f c e e c e c e a a e e e e e e a a c c a a c a a e a f e c e c e S Pe BIO BIO Mee BIO a HSCI

BIOL 578-0.5 to 2. DNA Technology for Teachers. I c e e e f DNA ec a e e c e e e Pac ca a ca b ec D c f afe a e ca e Pe O e ea f CHEM BIO

BIOL 579-3. Laboratory Methods in Exercise Physiology. Ac e e e e a c e e a e a a e a c e a c c e e a a a e e c e T e c e e a e c e ab a e c e f a e a e c ab a e S Pe C e f c Mee BIO

BIOL 580-3. Advanced Practice in Exercise Physiology. De e e a c e e c e e e e e c e b c e e e c e e a e a a f a e f a c e E e f a b a Me E e c e l Pe C e f c Mee BIO 8

BIOL 581-3. General Biochemistry. T c c e c e c f a a c e a f c f e e f e e e c a a e c e e a e a b c a b a e a a a c e e e c a e a b c c a e Fa Pe O a c c e c e f c Mee BIO 8 CHEM 8 a CHEM 8 BIO

582-4. General Biochemistry. C a f BIO 8 8 T c c e c f e a b c e a c a a a c a e c a a c e c e c e c a c e a b f e c a c b e a f c f a c e c e c DNA RNA a e b c e f b c e a e a e c a c S Pe O a c C e

BIOL 584-3. Molecular Biology. F c e e e c e e a c a e a c e e e e a e a T c c e a c e c b a a a Pe BIO 8 c e f c Mee BIO 8 CHEM 8 a CHEM 8

BIOL 585-3. Molecular Biology Laboratory. A a b a c e e a e c e e c a b c DNA c a a a f e e e Fa Pe BIO 8 8 a BIO 8 Mee BIO 8

BIOL 586-3. Biochemistry and Molecular Biology Laboratory. De e e a b a a e c e E e e a e e e c e e a e c e a a c a f c e e c e a e e f e a S e c e e c e f a a e e c e a e e e S Pe O e e e e f b c e c e b a e e e e f a c c e Mee BIO 8 CHEM 8 CHEM 8

BIOL 587-3. Biochemistry and Molecular Biology of Lipids and Membranes. A e a e c e a f c fac a e e a c e e b F c e a e a b a e e e a a c a e b a e e a b e c a a c a f a c c e c e e a a a e a a Pe BIO 8 8 BIO 8 8

BIOL 588-2. Principles of Flow Cytometry. A c e e e e c e e a e c e a b c a a c a f c e e e e c e a a a c e T c b e e c e c e c e e a a c e c a a a a a c a b c a e e a c a c c a e c e S e Pe C e f c

BIOL 589-3. Advanced Flow Cytometry. A e a a a b a c e f e f c e c e c e a a c a T c b e e c e e e c a a a e c e f c e c a c a e c e a c a c a c e face ac e c e e a c a b Fa S Pe BIO 88 88

BIOL 590-4. Pathobiology. De e a f e b a a e e a fe e T e c e c e e c a f a e a e f c e a a a e c a e Ma a e e e a b e b e c e a b a e a a e a f a a e a S

ea P e BIO BIO BIO O e
e a ae e Mee BIO

BIOL 636-2. Advanced Biomechanics. A a ace
fb ec a c l c e e f
a aa f cea ecac a ee
e a e a e a c a e c ee
e P e C e f c

BIOL 693-3. Research Practicum in Genetics.
ab a c ef a ace b e a
a ae e eee ec a b
c ba e e c a b ec C e c e
e e e a e ab a ec a e ea
a e e a f a a f a ec
P e BIO 8

BIOL 694-3. Research Practicum in Biochemistry.
ab a c ef a ace b e a
a ae e eee b c e C e
c e e e e a e ab a ec a
e ea a e e a f a a f a
ec Mee e ee P e BIO 8 BIO
8 BIO 8 a c e f c

BIOL 695-3. Research Practicum in Exercise Physiology. ab a c ef a ace b
e a a ae e eee e e c e
a C e c e e e e a
e ab a ec a e ea a
e e a f a a f a ec Mee
e ee P e BIO BIO 8 a c e
f c

BIOL 700-1 to 6. Masters Thesis.

BIOL 940 to 948-1 to 3. Independent Study in Biology. A a ce e a e a e e c a e
e e e e e a c e e c c a e a
be e e e e e fe e c e b c a
e a e a b e c a a a b e A e c a e
e e a e e c f a e e a c e e
e a b a e a b e a e b e b e
c e e P b e a e c e e
e b a acce a b e e a f
e a e a b e b e e a c f a c e b e
e e c e b e e e e f f
S e a e c e f c a c e e
e f e e Fa S S e

BIOL 941-1 to 3. Independent Study in Biochemistry. See e c f BIO

BIOL 942-1 to 3. Independent Study in Genetics. See e c f BIO

BIOL 943-1 to 3. Independent Study in Exercise Science. See e c f BIO

BIOL 944-1 to 3. Independent Study in Plant Molecular Biology. See e c f BIO

BIOL 947-1 to 3. Independent Study Organismic Biology. See e c f BIO

BIOL 949-3. Senior Thesis. F a a ce e
e e e e e a c f
a b De c f a f
l e e e S B BIO a T e
c e e f a e A a b e
b e c a a e e f e e a c a
a e a a e e e f e e a e a e
a a c a e e T e a b e e e e
f a c c e a b R e a c b e c a e T e
e a a e f e a c b e e f f
a c a b c a a b e e e e f a c c e
a b A e a e e a c b e e e
f a c a e b l
e e a e a e e a e a f e
a e e e f e e a F a S

BIOL 950 to 958-1 to 3. Independent Study in Biology: Graduate. Sa e a BIO 8 a b e e f e
a e a a e e e Fa S S e

BIOL 951-1 to 3. Independent Study in Biochemistry.

BIOL 952-1 to 3. Independent Study in Genetics. See e c f BIO

BIOL 953-1 to 3. Independent Study in Exercise Science.

BIOL 954-1 to 3. Independent Study in Plant Molecular Biology. Mee BIO

BIOL 956-3 to 5. Independent Study in Cell Biology.
S e e e e e e a c c e b
T e a e e c a e e a e e c e a
e e a c P b e a e c e e
e b a acce a b e e a f
e a e a b e b e e f a c e b e
e e c e b e e e e e f f
S e a e e c e f e c a
c e e e f e e Fa
e P e BIO Ce B

BIOL 959-1 to 3. Independent Study Senior Thesis.

BIOL 999-0. Candidate for Degree.

CHEMISTRY

CHEM 100-3. Chemistry in the Modern World. Lecture. A b e f c c e c a c e a
f e a c a b c e c a a e a a
c e e c e c e e b e a
a a e a c c e c a T c e
a b e a e e a b c e CHEM
C a f e f e AS a a c e c e
a e a e e e

CHEM 101-4. Introduction to Chemistry. e c e a
a b T a e e e c e c e
a e a c e a a c c a a c a
T e c e e e f f a
P a a e c a a a e c e
e f e e T e e c b e a e
f e a e e a e CHEM
b a e a a c c e c e
a e a e a e b a c S e
a e a e a e b a c c e e
a e a a e b a c e b e f e a CHEM T e
c e c e e a e e a e a b
e e a e f a e a c b a e a e a c
e b a e e c e a c a c e a
e a c C a f e f e AS N a
S c e c e a e a e e P e O e a f c
a e b a

CHEM 102-4. Introduction to Organic and Biochemistry. e c e a a b T e e c a
f a e e a c e a b e a e a f e c e
f CHEM S e a e e e a e
CHEM a e b a T e
c e c e a e f a c f c a
a b c e c a e a c A a e e a a c e
c e a f c f a c a b e c e
A e f AS N a S c e c e e e P e
CHEM a a e f C e

CHEM 103-5. General Chemistry I. Lecture, recitation, and lab. A c e e e e c e c e f
e a e a e c c e E a
e c e a c f a e e e e
a c a a e c e a a e f
a e c S e a a a
a e a c b a c a e a e f e
a e a c c e c e b e f e a CHEM T
c e e CHEM a a e f C e c e a C
a f e f e AS N a S c e c e a e a
e e e P e e a c c e a
e a c a

CHEM 106-5. General Chemistry II. e c e e c a
a a b T e e c c e f e e e a
c e e e c e E a a c b a e a
c e e b a e c e e c e
a e a c e c e a c e a
a c c e C a f e f e AS
N a S c e c e a e a e e e P e CHEM
a a e f C e

CHEM 108-1. Introduction to Chemistry Lab Research. R e a c e c e c e b
c c a e a e e a
e e a f e c a a c e c a e e f
a e e f e a c a c face a c
e e a a a e C c e e e e CHEM
e e

CHEM 110-1. Chemistry in the Modern World Laboratory. W e a e a CHEM e e
c e c a f e f e AS N a
S c e c e e e e a a b e e e E e e
a e b e e c e a a e e c e c e
e e c e P e C e e a CHEM
c e f CHEM S a e e AS
N a S c e c e a b a e e e

CHEM 115-4. Preparatory Chemistry. P e a a
c e e c e a a b f e a e
a e c c e P e a e e f
e e a c e CHEM C e a e
f e c e e c e c e a e b e e
e a e D e c a e AS N a S c e c e
a e a e e e P e O e e a c a e b a
c c e e e e MATH F e
e c e b a c e a a f
CHEM

CHEM 121-3. Introduction to Physical Science.
A e a e e e a f e b a c c e f
c a c e f c e c e a T c
c e e a a c a e c a
c e c e c a e a c a c a b a e a
a a c C a f e f e AS
N a S c e c e a e a e e e P e T e a f
c a e a c Mee PES

CHEM 124-1. Physical Science Laboratory. A
a b a a c c a CHEM PES I c e
e e e e c a c e a e e c c
c e c a e a c c e a c b a e c e
a e a c e c C a f e f
e AS N a S c e c e a e a e e e Mee
PES

CHEM 151-3. Environmental Science. I c
a c e c a c e a b c a c e
a f c E e a c a a a a
e e a c a e a a a a a e a e
e a e e e c f a a e a e e c
a a a A e f AS N a S c e c e a G b a
A a e e e e e e Mee BIO

CHEM 153-1. Environmental Science Laboratory.
a b a a e e e c e e BIO
a CHEM C a f e f e
AS N a S c e c e a e a e e e P e C e
e a c e f BIO CHEM
Mee BIO

CHEM 301-3. Materials Science. e c e A
c e e e f e c a a c e c a
e e f a e a c e a a c e a
c e a c e a e a l e e f
c e c e a e e e P e G a e f C
e CHEM PES a MATH
e f e c

CHEM 330-3. Organic Chemistry. e c e f b
a a c e a a e
e e e f a c c e T a e f
a c e c a e c e e a a a
e a c T e c e c e b a c c c
a c a b a e e e a e a e a a
e e a c a f c a
F a e e e P e CHEM a a e f C
e S e a e c c e f e a b
c e CHEM

CHEM 331-3. Organic Chemistry I. F b c e
a c e a T c c e
c e a e a c f a a e a e e e a a
a e O a c e c a e e e c e e a c
e c a a e c P e G a e f C e
CHEM C c e e a f CHEM
e e

CHEM 332-3. Organic Chemistry II. F b c e a c e a T c c e c e a e a c a b c a c a e e e e a e a a c c e a a a a c E a a c e a e a c e a P e CHEM a e e a e f C e

CHEM 333-2. Organic Chemistry Laboratory I. F b c e a c e a l c f e e a e c e f e a c c e c c a e e c e E a a e a c f a e e a e a e a e e c e c a e P e G a e f C e CHEM

CHEM 334-2. Organic Chemistry Laboratory II. F b c e a c e a E a e c c e c e a e e f a c e e e e c a b c a c a e e a e P e CHEM a a e f C e S e e e f e c e a a b C e CHEM

CHEM 337-2. Practical Organic Chemistry I. A c a c a b a e f c e a P e G a e f C e CHEM C e CHEM

CHEM 338-2. Practical Organic Chemistry II. a b a A c a c e c a e c c e f c e f c e a P e CHEM a CHEM a e f C e T b e a e c c e CHEM

CHEM 340-2. Organic Chemistry Laboratory. a b a f b a a c e a a b e c a c c a CHEM l c e e e a e c e a c e a a a e c c F a e e e P e C e CHEM a b a c e b e a e c c e CHEM

CHEM 341-3. Environmental Chemistry. A e e a c f b e f e e e f a c e c a f e A a e a a e effec e e c f a P e CHEM a e f C e

CHEM 388-3. Forensic Chemistry. l c e e e a e e e f c c a c e a f e c c l c e c c e f a a c e c a a a c a c a e a c e c a e a a c a e a b a effec e a P e CHEM CHEM CHEM a CHEM

CHEM 395-3. Cooperative Education in Chemistry. S e a a e a a a e f a c e b e e a c e f c a e e a f a c e T e a e e a e e e e a b a a e a e e a e e e f e

CHEM 401-3. Inorganic Chemistry I. A c e c a a c c c e f e a c c e T c c e a c c e a e c e e c a c a e b a a e f a c a e a c P e CHEM a CHEM

CHEM 402-4. Inorganic Chemistry Laboratory. A e a e f c e c a a c e a a e f a e a c e e a b a e a e a a e e a e f e a c a a c e a e c e P e CHEM a CHEM a e f C e

CHEM 405-1 to 4. Topics in Chemistry. E a a f e e c e c e e e a a a b a f a T c c a e a c c e e e f e c a e S e a e a e c e f c e e e c c a e C e c e e f c e f c

CHEM 411-3. Nuclear Magnetic Resonance Spectroscopy. Lecture and lab. T e a a c c e f a c e e c e NMR e c c c e e c a b e e a c e a a a e c e a e c e e

CHEM 417-4. Analytical Chemistry I. e c e a a b E a c e c a e b a a e a a b e a f a e c e e e c e e a a a a c a e a a e c e P e G a e f C e CHEM

CHEM 418-3. Analytical Chemistry II. E a e a e f a a c e c a e e c a a c a a e a a e P e PES CHEM a e f C e a c c e e e c e f CHEM C e CHEM

CHEM 420-2. Practical Instrumental Analysis. a b a e a e f a a c e c c e c a e e c a a a c a a c a a c e c e P e CHEM a CHEM C e CHEM 8

CHEM 450-3. Biophysical Chemistry. C e c a c e c c a e a c c e c a e b a e c a e e c a b c a c e e l a a c a e b e e e a e a a c a b c e c a b e P e BIO BIO CHEM CHEM MATH PES PES

CHEM 451-3. Physical Chemistry I. T e a c a f e a c a e c a e c e c a e a c a e e c c e c a c e T e a e a e c a c f c e c a e a c P e G a e f C e PES PES MATH a CHEM

CHEM 452-3. Physical Chemistry II. T e a c a f a e c a c a c a e c a c e a e c a T e a c a f a c a e c a c e e c f e a c e e T a a e e f e a c a e P e CHEM a a e f C e C e CHEM CHEM

CHEM 454-1. Experimental Physical Chemistry. a b a E a a a e e e e a c a e c P e CHEM a CHEM a e f C e C e CHEM Mee CHEM

CHEM 455-2. Experimental Physical Chemistry. a b a l c e e e a e c e f e c a c e e a e e e a e f a e a c e f c e c a e a c a c e a c e c a e c f BS c e a P e CHEM a CHEM a e f C e Mee a CHEM

CHEM 456-3. Surface Chemistry. A f e c a c e f face a e face T c c e e f a c a e e a e a e e e e c a a face f f e c f a e a f a e e c c a a a e c a a c e a f face P e CHEM f c e a PES a e e PES PES f c a e e e a Mee CHEM

CHEM 481-3. General Biochemistry. e c e T c c e c e c f a a c e a f c f e e f e e e e c a a e c e e a e a b c a b a e a a a c e e e c a e a b c c a e Fa P e BIO a CHEM Mee CHEM 8 BIO 8 BIO 8

CHEM 482-4. Biochemistry II. e c e C a f CHEM 8 T c c e c f e a b c e a c a a a c a e c a a c e c e c e c a c b e a f c f a c e c e c DNA RNA a e b c e f b c e a e a e c a c P e O a c C e Mee CHEM 8 BIO 8 BIO 8

CHEM 483-3. Biochemistry Principles. A c e e e e e e e c c e e c a a e a b f c a b a e a e c a a e a a e a f e e c f a P e BIO BIO a CHEM Mee BIO 8

CHEM 484-3. Molecular Biology. F c e e e e e a c a e a c e e e e a e a T c c e a c e c b a a a P e BIO 8 c e f c Mee CHEM 8 BIO 8 a BIO 8

CHEM 486-3. Biochemistry Laboratory. De e e a b a a e c e E e e a e e e c e a e c e a a c a f c e e c e a e e f e a S e c e e c e f a a e e c a e e e P e O e e e e f b c e c e b a e e e e f a c c e Mee CHEM 8 BIO 8 BIO 8

CHEM 495-1. Chemistry Seminar I. A c a e c e e e e f a a e e e c e c a e a e a a f e e e a A e f AS O a C c a e e e P e CHEM a e e CHEM CHEM

CHEM 496-1. Chemistry Seminar II. A c a e c e e e f a a e e e c e c a e a e a a f f a e e a A e f AS O a C c a e e e P e CHEM

CHEM 500-0.5 to 2.5. Chemistry for Teachers. A a a b a e c e c e c e e c a c e f e c c e c e e a c e C e c e b e e a e e a c c e a e e a a e e e P a c a e a e e c e a c c e e e e f e a c e a f c e a e a e O e P P R I S M a c a P e C e f c

CHEM 511-3. NMR Spectroscopy. Lecture and lab. T e a a c c e f a c e e c e NMR S e c c c e e c a b e e a c e a a a e c e a e c e a e a e e e Mee CHEM

CHEM 517-3. Electrochemistry. E e c c e c a e f a a a c a e a T c c e e a c a e c e e c e c a e c e a e a c a P e P c a c e a a e f C e

CHEM 518-3. Chromatography and Analysis. Lecture and labs. A a c a e a a c e e e c a e f e e c e e a a c c e f a a c a a A a e c e a e c e a c e a e c e a c e e c P e U e a a e c a c e a e a e f a a

CHEM 531-3. Advanced Organic Chemistry I. Lecture. S e f a c c e c e c a c a e c a c c e P e O e a f a c c e a a e f C e

CHEM 532-3. Advanced Organic Chemistry II. Lecture. M e c c e f c a a c c e a e e e e a a e f e c a a c e a c a e a c e f a c c P e O e a f a c c e a CHEM a e f C e

CHEM 556-3. Surface Chemistry. A f e c a c e f face a e face T c c e e f a c a e e a e a e e e e c a a face f f e c f a e a f a e e c c a a a e c a a c e a f face Mee CHEM

CHEM 581-3. Advanced General Biochemistry. Lecture. T c c e c e c f a a c e a f c f e e f e

e e ec a a e c e e a
eab cab ae a a ac
e e e c a eab cc a e
Fa Pe O a cc e c e f c
Mee CHEM 8 BIO 8 BIO 8

CHEM 582-4. Biochemistry II. Lecture. C a
f CHEM 8 T c c ec f eab c
e a c aa a c a
ec a ac ec e cecac eab
f e c a c b e
a f c f ac ec e c DNA RNA
a e b c e f bce a e a
ec a c S Pe O a cC e Mee
CHEM 8 BIO 8 BIO 8

CHEM 584-3. Molecular Biology. F c e e ec
e e a ca e a c e e
e e a e a T c c e a c
ec b a a a Pe BIO 8
c e f c Mee CHEM 8 BIO 8
a BIO 8

CHEM 586-3. Biochemistry Laboratory. De e
eab a a ec e E e e
ae e e c e e a e a ca
fc e ec e a e e f e a
S ec e e ce f a a
e e c e a e e e S Pe O e e e e e
f b c e ce b a e e e e f
a c c e Mee CHEM 8 BIO 8 a
BIO 8

CHEM 700-1 to 6. Masters Thesis.

CHEM 940-1 to 3. Independent Study in Chemistry - Undergraduate. C e f c e e F
e e

CHEM 950-1 to 3. Independent Study in Chemistry – Graduate.

CHEM 999-0. Candidate for Degree.

COMMUNICATION

COMM 100-3. Contemporary Mass Media. E a e
e a e aa e e ac ce
a a a e a e a ca
e ec a ca a c a c e Sa e a
J a Pe a e
e e f JOUR Mee JOUR

COMM 102-3. Interpersonal Communication. A ec
e c a ac c ca e a
a ca e e a c ca l e e
e e a f e a ce a ba c
e e a e e bec e be e c ca
e a e f e e f eca a A e f
AS S ca Sce ce a ea e e e

COMM 111-3. Introduction to Leadership. A
c e a f e e a be e e
ea e e a ac ce Tec e e a e
b f a a a e e ea e a a
e e e e a ba c e a f e a e

COMM 201-3. Oral Communication in the Workplace. De e e e a e a ce ac c ca
b e a fe a e C e
c e f c e a ba c f b e
c ca c e a e b
e e a c e a b e e
c c be
a effec e ee a e a a e e
effec e b e e e a A e f AS O a
C ca e e e

COMM 203-3. Introduction to Communication Theory. A f a c ca f ca ca
f a A e a e c c e
a e E a e c e c ca e
a a c ec e a ca aa e
a e e c e e e f c a b e
e e a c APA f a a a a e e Pe
COMM

COMM 210-3. Public Speaking. A ec e e c a
a ac e ba c c e f eec a
l e e e e ba c f a f e e
a a a e e fa a e f b c e e a
A e f AS O a C ca e e e

COMM 215-3. Male/Female Communication. A ec
e c a ac e fc e a
e e a e e a c a e fe a e c ca
Tec e e e a a c c
a e a a e e ffe e ce e f e ce ca
a e a a e f e a e a a e a e
a e ba be a ffe e ce be e e e
A e f AS S ca Sce ce a e a e e e Pe
COMM

COMM 224-3. Introduction to Organizational Communication. A c e f a
c ca a e f a a a c
ca e a c ca ce
f a a c ca e a
ce f be a ec a
c a Pe COMM a COMM

COMM 225-3. Introduction to Film and Video. A
f e c e a ec e f a c
ac ca e e e ce a
e a Te f a a
a a e be e a e e e e ce a a
e c

COMM 227-3. Beginning Television Production. A
c c e c e a e e e c
C e e a e a e e e ec
a c ece a a e e e
a a a e a a a e fba c f a
De e f a a a c e e c e
a ab

COMM 250-3. Research Methods. I c e
a e f ca ce c e c e e a c
e e a e e e e a c
a c Pe ID

COMM 260-3. Family Communication. T e e f
c ca e e a a f
fa e l a e c e a ac e e e e
a e a f e e e c c ca
affec a affec e b e fa

COMM 290-3. Writing for the Media. F a e a
f e a e a e f Mee
JOUR

COMM 310-3. Directing Studio Performance. O e e f ec a ca e f a ce
e ca e a e a e a f a
Ob e a a a a ac ba c e f
a ce ec e e a e e a e a

COMM 315-3. Communication Competency in Groups and Teams. T e a ac ce c
ce e a ec a Pe COMM
c e f c

COMM 323-3. Nonverbal Communication. C
f e f e ba c ca
e c e c ca a ea a ce a a a a e
a e a a a ca f e ba c ca
e a e e

COMM 324-3. Business and Professional Communication. T e a ac ce a a e
c ca c e e c f b e a e fe
T c c e e e a a ea b e
e e ac ca a a
a ce a e e f e a e a a e
a c ca e b e a a
f e f e A e f AS O a C ca
e e e Pe ENG a ENG

COMM 327-3. Intermediate Television Production. A
a a c e c e a ec e f e e
c c e e e e e e e c e
ca e a c a c
e e c c e c e T c c e
c a a ce e ec
a e ec e a ab Pe COMM a
COMM

COMM 328-3. Intercultural Communication. A
e a a f e ce be a
e a e c ca ac c a
b a e l ca f e a a ca a
C a a e c ca e e c e
c e A e f AS S ca Sce ce a C a
D e e e e e

COMM 330-3. Script Writing. A c e f
e a S e e a e e e e f
c a c a e a f a c e
a e Pe JOUR COMM COMM
a COMM

COMM 344-3. Leadership Communication. A e a
a fc e a e e a e e a c e a
e c ca f e a e e e a
a a a a ce a e c
c e a f e a e f e a ce a
e a e A e f AS S ca Sce ce a e a
e e e

COMM 345-3. The History of TV Programming. E a e e f e e a
l e e c a e c a
a a a e a c e f a
f b a ca a ca b e TV

COMM 350-3. American Cinema. A c
c e e A e ca c e a a a a
e f e e e a a c ca S e
ac e e e f a e e e c ca
a c ca cab a e a a e e
e e b a e ca c e

COMM 365-3. Mass Media and Society. T e
e e a a a e a ce a c
ca a e e e T e e e ca f a f
a c ca a e e e a e

COMM 400-3. Rhetorical Dimensions in Communication. T e e f a c e
e a e fca ca a ac ce
ca e e e a e e ca ce e
A e f AS H a e a e a e e e Pe
COMM a COMM

COMM 410-3. Advanced Public Speaking. A a ce
e a f e e e a a e e a
e a a f b c e e c e A e f AS O a
C ca e e e Pe COMM
e a e Mee COMM

COMM 415-3. Communication for the Classroom Teacher. T c e e e be b e e ca
a ac ca a e a e e ac e a
e c e e ac e e a a e f a
a e c ca a e e e ca l
c e e f a a e e e a fac a
f e a c e a e e c ca
be a Mee COMM

COMM 417-3. Documentary Film and Video. S e
e e a c e a ce c
e S e e e e ab e e a
e a c ca ab ca a c e a c
e a e Pe COMM COMM COMM JOUR

COMM 420-3. Persuasion. T e e f a
a c a e a e a e a a
c e a fa e be e f a e c e b
e a e a a be e c e c a effec A a f
e a e ca a A e f AS S ca Sce ce
a e a e e e

COMM 422-3. Creative Communication. E a f
e e a be e e c e a a c ca
T c c e e e e a e f c e a a a
a e e ce a e ce a a a
a c e a e e c e A e f AS S ca Sce ce
a e a e e e Mee COMM

COMM 424-3. Advanced Organizational Communication. Ma e ec e f e f a a a c ca c ca a ce e a c ca a a e e e ac ce P e COMM COMM COMM a COMM Mee COMM

COMM 425-3. Advanced Interpersonal Communication: Conflict Management. A ec e c a ac e fc e a e e a e ea c c c C e e ea a c f b a e e ea c e a ec a ce c a e a e ce e c ec ca a a ec ca a c ca e e a e a ea A e f AS S ca Sc e ce a e a e e e P e COMM

COMM 426-3. Organizational Communication in the Global Environment. T e ba e e a a f a a a ca a a af e a a ec a c ca ee e a e a a a c ca a e a e c ca e ace C e a a e a e e f b ec ca a a ce c e ece a f e ace f e f e P e COMM

COMM 427-3. Advanced Television Production S a a f e a a e e e a e a ce b a a ce e S e c a a e a a a af a a e ec Ma be e e a e a a f P e COMM COMM a COMM

COMM 429-3. Sustainability and Corporate Social Responsibility. E a e e ec ca c a e e a e a a C ec b e e e ca a a e e e ec e f c e f c a e e a ce e c b a c a e c e a e e a a e e a c a a e Mee COMM

COMM 445-3. Advertising Media. A e a e e a a ac ce fa e a a a a a ce ce S e a c a e ca e a ca a a a ca a c a e e

COMM 450-3. Media Management. A a f a a e a be a e e a a e a a Ca e e ca a a e a e e a e a e b c e a a e e e e a e a a e f a a a e a fac P e COMM a COMM

COMM 451-3. Quantitative Methods for Communication Research. C e c e c a c e e ANOVA b a a e e e a e a e e e S e a e a ce e e f a ca f a e P e COMM I D a MATH Mee COMM

COMM 461-3. Principles and Practice of Public Relations. De e e a a a c e c e a ac ce f c e a b c e a S e c e a e e a a e e f e f a a ca f b c a e e e a e ac ce f b c e a c e a ce

COMM 469-3 to 6. Internship in Communication. S e e e f b a e e a e e e c e c ce e e f c ca e f P e F O C a Rec A Me a Ma a e e a

COMM 475-3. Communication Law. E a e e a c e f b c c ca c e F A e e efa a ac ca eec c e c a eec b c e e a e e e c a e a e a fb a c a cab e a e c ca Mee COMM

COMM 490-1 to 3. Special Topics in Communication. A a c e e a a f e c a e e a e c ca a c e T c a f e e e e e e Ma be a e e f c e e f e a e c a P e Va f c c

COMM 495-3. Seminar in Leadership and Organizational Change. A a c a ac ca ec ba e c e f c c e a e a e a ac e a e e a e c e e e f c a e a a ace a a a ea e P e COMM a EAD Mee COMM

COMM 499-3. Multicultural Diversity and Communication – A Team Teaching Approach. E a e e ce a e f c ca a a ca a c a ce E e ca e f cce e a fa e e e a a a c ca a e a e e ce f e ba a e ba c ca e e e a a e fc a e e a c e Mee COMM

COMM 510-3. Advanced Public Speaking. A a ce e a f e e e a a e e a e a a f b c eec e P e COMM e a e Mee COMM

COMM 515-3. Communication for the Classroom Teacher. T c e e e e be b e e ca a ac ca a e a e e a c e a ec e ea c e a a e f a a e c ca a e e e ca l c e e f a a e e e a fac a f e ac e a e e c ca be a Mee COMM

COMM 522-3. Creative Communication. E a f e e a be e e c e a a c ca T c c e e e a e f c e a c e a a a e e c e a e c e a a a a c e a e e c e Mee COMM

COMM 524-3. Seminar in Organizational Communication. E e a e e c a e e c e f e f a a a c ca e a e c e a c ca e a e c b e e a e b e f a a a c ca fe a a e c e e e a c a a a c ca S e a a a a c ca c e a a e f ca e e a a a e e e e c e Mee COMM

COMM 529-3. Sustainability and Corporate Social Responsibility. E a e e c ca c a e e a e a a face e a a b a c a e c a e b C e c b e e e c a a a e e e c e f c e f c a e e a c e e c b a c a e c a e a e a a e e c e Mee COMM

COMM 551-3. Quantitative Methods Communication for Research. C e b e a e e f e e e a a c a e a e e e c c e a e T e ANOVA C a e b a a e a a a e e e P e COMM I D a MATH Mee COMM

COMM 560-3. Advanced Communication Theory. A e a f e e a f e e e e a c c a e a e e a c c a ce a e a c e a e e f a c ca Ta a e a f a P e COMM

COMM 569-1 to 3. Problems in Radio – Television and Film. O f e e e e c a e c a e a a TV a c e a e e c e f f e a P e C e f c

COMM 570-3. Instructional Media. C e e e e a a f c ca a e a e c a e a e a c

COMM 575-3. Communication Law. E a e e a c e f b c c ca c e F A e e efa a ac ca eec c e c a eec b c e e a e e e c a e a e a fb a c a cab e a e c ca Mee COMM

COMM 577-3. Leadership Communication in a Global Environment. A a c e e a f c e a e a e e a e e a e a e ba e a e c ca e S a e c c ca e a e a e ca e a a e a e e a be e e a e a c e a e e a e f a a e a e c a c a e c e a e c a e e e a e e a c e a e e a e a f e a e ba a e c a e a e a e a e ba e a e c a e e f e f e

COMM 580-3. Qualitative Research Practices in Communication Studies. I ce a a e e e a a e c ca e e a c ce b ca a c ca e e c a e a e c ca a a c a e e a c e c b a a a e e e a c e e c ca e e a c e e a c ca e e a c a a ca a ec P e COMM a c e f c

COMM 595-3. Seminar in Leadership and Organizational Change. A a ca ac ca ca ffe a e e ac e a a e f c e e a e c e e e f c a e a a ace a a a e a e Mee COMM

COMM 599-3. Multicultural Diversity and Communication. E a e e ce a e f c ca a a ca a c a ce l e e ca e f cce e a fa e e e a a a c ca l a e a e e ce f e ba a e ba c ca e e e a a e fc a e e a c e Mee COMM

COMM 601-3. Introduction to Graduate Work in Communication. Fa a e e e e ca e ca a e ca ba e f c ca Re e f a e a e a a e e

COMM 602-3. Communication Research Practicum. A ec ba e a a e c e e e e e c ca e e a c a c e a e f e a a e c fe e ce e e a b ca c P e COMM a c c e

COMM 610-3. Communication Competency: Theory, Assessment, and Pedagogy. I a e a f a c e e a e e ca e e e f a e e e e c ce a a a e f c ca c e e c M e a e e a e a e e a c e S e e e a e e a a c ca c e e c a e e a

COMM 625-1 to 6. Problems in Communication. E e a a a e e e e be c c ca a ffe e a e a ba See Sc e e f C e f c e ffe a e e e

COMM 626-3. Communication, Training, and Development. E a e e e f a a e e e f b e e ca a a a c e e c e A e a e a be c a e a a e e e e c e a a e b a c e e a a e c a a a e f a c e

COMM 651-3. Intermediate Quantitative Methods for Communication Research. A a e a a e e c e c e a ca f e e ca ce ce a e c ca c ca S e e e e a e c f ca ce c e e a c e c a e ab a a e e c f

e a ae a c f a e a ca
Sec c c a e e c e ANOVA ANCOVA
a a e ca aa e c ea e fa ca
fac a a a e e e Pe COMM
COMM

COMM 699-3. Emerging Communication Technologies. E a a f e c ca
ec e e a ea ca ab a
ac e e a a a a a
a e a a c e Seca e a ac
f ec e f be ec a
e ea e a ca e e ea
a ca c ca e

COMM 700-1 to 9. Masters Thesis.

COMM 940-1 to 4. Independent Study in Communication. I a e e e a e
e e e eac ec c ca A e
e e e e ce e e a e
e e cf e eac efac Pe COMM
COMM a c e f c

COMM 950-1 to 6. Independent Study in Communication. I a e e e a e
e e e eac ec c ca A e
e e e e ce e e e
fac a e e e cf e eac Pe Ga ae
a

COMM 999-0. Candidate for Degree.

ECONOMICS

ECON 100-3. The Economics of Social Issues. T e
Ec c fS ca l e ce e e
ec c a e a e a ECON
Ec c e ae ce e a ea
e e e c e e ca ea c a
e e a a Ma be a e f ce
b e a e a c e e ECON
A e f AS S ca Sc e ce a e a e e e

ECON 101-3. Introduction to Microeconomics. A
a a f e a e e a e a ca
a e ce be f a e fa e e
e e a a b c
a a e a e e e e e c be
A e f AS S ca Sc e ce a e a e e e

ECON 202-3. Introduction to Macroeconomics. A
e a a f e f c e c e e a a
c e e e a ce e f e e
c c ba a a e e ba a ce
f a e be e e f f e e e
a e e e e ec e e a c e
a fa e a e ec c e A e f AS
S ca Sc e ce a e a e e e Pe ECON

ECON 281-3. Introduction to Statistics and Computing in Economics. U e f ec ea fe e a a
c ec c l c bab a
a c e ce e a e e a
e ea e e

ECON 301-3. Intermediate Microeconomic Theory.
P c ce a b e e c
f e fec a e fec c e Pe ECON

ECON 302-3. Intermediate Macroeconomic Theory.
e e a ca ca a ea e e f a a
c e e e a P be f e e
a e a a e c a e a Pe
ECON ECON

ECON 315-3. Great Books of Economics. A f
ec c c e a e e e e a
f ea e e e ca A a S Da R ca
a a Ma A e f AS S ca Sc e ce a e a
e e e Pe ECON a ECON

ECON 321-3. Economics of the Public Sector I. A a
f e e f e e aca a ec a
f e effec fa e a e e e ea a ce
Seca c c c e ca ec e
a a ca e c c e e e Pe ECON
e f c

ECON 328-3. International Political Economy.
O e e f e ca ec e e ca e
WWII e Tece a a f ec e
e f a a e e a a ca ece
a f e a e ca e e
e a a ec c e a Pe ECON ECON
ECON Mee PSC 8

ECON 330-3. Environmental Economics I. A ca
fec c a a e e a a a a
e ce e a ce T c c e be e e
c a a e e e abe e ce
e e e ce c b a ce a a a e
Pe ECON e f c

ECON 341-3. International Economics. A a f e
ba f a c e e ce f e a ec
e e a a a e a Sec c e c e e a e
e be e a c f e a a a e e e a
f ba e a e e e e a f e c a e a e
a e effec f e e ce f e a a
a fac Pe ECON a ECON
c e f c

ECON 350-3. Economic History of the United States.
A e ca ec c a a a a
e e e e f c a e e e e
Pe ECON a ECON Mee HIST

ECON 366-3. Economics and Community Problems.
S e b a c e e e e
fec c ee e ec ca ec f ca
be a e e ce ea
a e ec l a a a
a e e a a e e Pe ECON
ECON ECON

ECON 369-3. Economics of Business. E a e e
a ca fec c e b e be a
a e a a e c e Pe ECON

ECON 371-3. Comparative Economic Systems.
C a f e ce a ca a ab a
c e e ca a ca a fac
E a a fe e e ce f e ec e c e
A e f AS S ca Sc e ce a G ba A a e e
e e e Pe ECON c e f c

ECON 377-3. Economic Development. T c e
e a e e ce fec c e e e
a e e e e T e a a f e
a f e a c ec e
ec e a f a e e a e e e e
Pe ECON ECON

ECON 385-3. Law and Economics. E a e
ec c e a bee a e e a e a
bee e a e e a c e N e ca e a e
e a e Pe ECON c c e

ECON 398-3. Special Topics in Economics. A f
e ca c ec c T c a f e e e
e e e a e e a e a e e a ca f
ec c a a c e e Pe ECON

ECON 401-3. Advanced Microeconomic Theory. S
f ec e f c ec c e cac
T c c e c e e f e
a a a ef c e c a a e fa e Se e a
a a ce c f ece e e e c ec
c a e a e a e Pe ECON a MATH
c e f c

Economics of the Public Sector II. A a f e e
f e e aca a ec T c c e
be e c a a ec c f c a e
ec ca ac c a a Pe ECON
e f c

ECON 425-3. Urban Economics. Ec c a a
f c e e e e e e e
a ffe e ac e a e a a e c e
E e e ec c f ba be c a
e c e a c e Pe ECON

ECON 430-3. Environmental Economics II. A ca
fec c a a e e a a a a
e ce e a ce T c c e ec ca
ec c a abe e e e f e e e
ba a a e a e e ece Pe ECON
e f c

ECON 431-1 to 3. Understanding Our Economy.
E e a a e f c a cabe e
a e ac fec c T e e a be
e e c a c e a a a e
e e e e e ec c T c e be
a e D f C E ca
Pa Fa

ECON 441-3. Advanced International Economics.
T e e e fa a ce e c e
e a e e e effec f ba a e US a
e c e Pe ECON ECON ECON

ECON 450-3. Money and Banking. T e f e
e ac be e e a ca a e a e Fe e a
Re e e Ba e E a e e c c f
e a c e c a e e c c a
ab T c c e e e a e a e
e a e e ce f e e a abe e
b e c c e N a a abe f ce e
a e c e e FNCE Pe ECON

ECON 451-3. Constitution and the Economy. C e
e e c c e f e e e e e e
C a S e e C E a
be ef c e c a e Seca c
c e ce e a c e c e c a e a
b a e e ce Pe ECON e
f c

ECON 452-3. Economic Freedom. E a e e
f a be a a ba f e f
a e efa e e c c Tec e c e
e a ca a c e T c c e c
a f a ef c e c a e e e
fec c fee a c e a c e
Pe ECON e f c

ECON 453-3. Power and Prosperity. U e e e b
b Ma c O e e c c e f
a C e e e O e e a
a c e f ca e c T c c e
fee e be a e c c f e e e
e e a ca c e a e Pe ECON
e f c

ECON 461-3. Labor Economics. T e e e a
f a e a c e US Ec
A f e a e a f ab e
c e e a c e e c l c e e
ec c e effec f a e e a ab a e
a a ab b a e a a a f
cc a a c ce e e ab f c e a e
ca e a c e e c e f c a Pe ECON
ECON ec e e

ECON 481-3. Introduction to Econometrics.
De e e a a ca f e e e ec
e e e ec c e e Pe ECON
ECON 8 c e f c

ECON 501-3. Economics for Educators. A e a
ef c fa a e ec a e e f
e e e l c e c e a e f c ec c
a ac ec cc ce a e f a c a
e e a ce e ca Pe U e a a e
e e e a c e eac e

ECON 603-1 to 2. Methods for Teaching Elementary Economics. U e e a e a ac ba e ec
c e e e ece a f e e e a
ec c c Pe ECON

ECON 604-3. Methods for Teaching Economics.
P e e ac ba e ec c a e a a
e e a e e ec a e e e ac e e ac
ec c Pe ECON

ECON 631-0.5 to 3. Teaching Economics. T e e a
e e a a e f c a cabe e a
e a c fec c T e e a be e e
c a a e e a a e a e
e e e e ec c C e ffe e
e C a C c Ec c E ca N a

f ECON a a a e e Mee MATH

ECON 940-1 to 3. Independent Study in Economics.

ECON 941-1 to 3. Independent Study in Macroeconomics.

ECON 950-1 to 3. Independent Study in Economics.

ENGL 099-3. Components of Writing. I c c e ffe e E e e S e S e e a e e f a a aca e c ea a a e E a e e ce e e a c af e a e aca e c e S e ece e e e e ce ec a a e c e a e e e e f ea C ca ea a c a e a e a a f c e ENG a a c e e a e e e De e e a e e f ENG P ace e C e a ACT E c e f 8 be SAT E c e f be F a a ace e f a ca e W P a

ENERGY SCIENCE

ENSC 150-3. Introduction to Energy Science I. B ef f a e e e e a e e c ce a f a e a e f f e a e a e e c c e a a e e a effec f e e c a e A e f AS Na a Sc e ce a e a e e e Mee PES

ENSC 151-3. Introduction to Energy Science II. B ef f a e e e e a e e c ce a f a e a e a b e a e e e e a e a e e e a ac e e e a effec f e e c a e a a e a a e e A e f AS Na a Sc e ce a e a e e e Mee PES

ENSC 160-3. Introductory Solar Energy. B ef f a a e e e a e e e c ce a f a e a e ba c e a f e f a e a f e a e e a fe a a e e c c a a ca f a c e c c c f e e c e a a eb ac e A e f AS Na a Sc e ce a e a e e e Mee PES

ENSC 162-1. Solar Energy Laboratory. Ha ab ca e a e e e a ec e a e ce c e a e a e e a a e a b a e a ac e a e e e e Pe C e ENSC Mee PES

ENSC 250-3. Energy Fundamentals. Pa e e a f e f a e e e e a e e c ce a f a e a e ef ce c f e e c e ea a fe c e ca e ec c a e a e e e ce e e a a ca e e c e a c e a a eb ac e T e c e e e f ce ce e a a a e e e f ca c a e ca ce ce Mee PES

ENSC 320-4. Practical Meteorology. A c ea e e e e a e e ca e e a e a ca e a ca a c ea ac ca a ca l c e ea e e e e a a e c ec a a e e a e a e e a a a f eca ea e c a ca a c e e e e e e e f e e ca a c e ea e fac e be e e a e e ca c e ac a b e a Mee GES

ENSC 361-3. Solar Energy Design. A f e e c e f c e a e f a ce e c fac ea a e a e a e e Ga ca c e a e a e e ef a ce a e ca a e be c e e Mee PES

ENSC 365-3. Nuclear Energy. N c ea c e a e c ea eac a f E a cea e c a e e a ac

ENSC 367-3. Exotic Energy Sources. A e f e ec f e e a a cea e e c e c c a ca a ec e e ec ec a c f e e e e e a ec a e e a ea

ENSC 406-4. Introduction to Remote Sensing. T e ac a e ea fe e a a a e ce a a b ae a a a e a e T a ec e e c e c e e e f a e f a a a ec e Pe GES GES Mee GES a GES

ENSC 409-4. Image Processing. A c e a a ce e fe ce a a e e e a e A e e a f e e e c a e c ec be c e E a be ace e a a e a a b c c e f ANDSAT a a N e a e e e ce e e Pe ENSC GES Mee GES a GES

ENSC 460-3. Advanced Solar Energy. F a e a ec ca c e f a e e S a a a a a e Ra a e a c ec e e a a fe O ca e e f a e a O ca a e a a f a a e a c ce a c e c A a fac e a a e e e f a ce c e e a e a ca l c ac Pe PES a MATH PES a a e ec e e Mee PES

ENGLISH

ENGL 131-3. Rhetoric and Writing I: Academic Reading and Analytical Writing. F c e a e e e e e e e f e l ce e aca e c e a a ce e S e e e c ca e a a ca c e e ca a a fac a e c e a e fa a ca e a S e e f a a e f e a a e ce E a e e a a ce e a e a e ca e e S e a a e e c a a ac e e a a e c a a ac e e a a c ec c e f e ac a a a e ac ce e a e ac f ec aca e c e a a ce e Re e e c e a ca e a e a a ee a a ca e a ENG a a c e e a e e e S e ee a a e e ce e e e a be a e e c c e ENG GT C Pe S cce f c e f ENG e a e c e f e E ACT c e f e E SAT See e e a f a ec f e Sc e e f C e e C e B e f a a f a

ENGL 135-1. Sentence Sense: Editing and Style. Ac e e e ece c e a a e e be a a e W Ce e S e e a a a ba c a a ca a c c e a c e a e e ac e e e a a ee e O e ee ee e W Ce e be e ee f ca e S e e C c e Ca be e e a e f ce

ENGL 141-3. Rhetoric and Writing II: Argument and Research. E a e a e a e e a c e e e e e e S e e c a ca a e e e a e a a a e a e c e a a S e a c e e a e a e a e c a e c a a a e a e a e e a e e effec e f e a GT C Pe ENG e a e

ENGL 145-1. Independent Writing Workshop. A e f abc e a a e e ce c e a ba c c e S e a a e a e e ee e e a c a a e a f e e E e c e e a a c a a a c a c a e e c e e a a a e a e e a e c a b a e a e e e a c a e a e Re e a e e c e A f c ce a e a a e S e e C c e Ca be a e ce f c e

ENGL 150-3. Introduction to Literature for Non-Majors. F a e a e a a a f e a a a c T c e a e e e a e e a e c e A e f AS H a e a e a e e e GT AH P e ENG e a e c e f E ACT c e f E SAT

ENGL 180-3. Fundamentals of Creative Writing: Multiple Genres. S e e a e e e e e effec e e c a c e a e c S e a a a e e e a c a e b cab a a e e e e e e f c e a e a a a c a e c c e P e ENG

ENGL 190-3. Introduction to Literary Studies (For English Majors Only). I c f e a a a c e e e c a e a f a a c e e a e T c e a e e e f E a e e e e a e c e e e a e f E e c e ENG P e ENG e a e c e f e E ACT c e f E SAT

ENGL 203-3. Introduction to Creative Writing – Poetry. F e be e a e e W a a c P e ENG c c e

ENGL 204-3. Introduction to Creative Nonfiction Prose. F c c e c e c e e b e e e e e e e b e a a a e e a a a e a c fe a S e e e e f a a e bec e c a Rea c e e f a be c P e ENG c c e

ENGL 205-3. Introduction to Creative Writing – Fiction. E e c e e c e a c e e e e e ab e e c W a a c P e ENG c c e

ENGL 251-3. Survey of British Literature I. C ca f a B e f e be Be f e f S a e e a e P e ENG e a e a ENG ENG

ENGL 252-3. Survey of British Literature II. C ca f a B e f e e f e E Re a a ce e e e ce f J D ea J M T a G a a Ja e A e P e ENG e a e a ENG ENG

ENGL 253-3. Survey of British Literature III. C ca f a B e f e R a c e e e f e e e ce f e R a c Ba e B e c Yea P e ENG e a e a ENG ENG

ENGL 254-3. Survey of British Literature IV. C ca e f a B e f J ce Bec e f e a f e e e ce e c e a e a P e ENG e a e a ENG ENG

ENGL 260-3. Literature: The Global Perspective I. De e ce e e a e f e a c e a ea e a c a a e e e e f We e c e a a e be e e c a e e Ea A e f

AS H a e a ea a G ba A a e e e e e GT AH P e ENG a e e ENG ENG

ENGL 261-3. Literature: The Global Perspective II. E a e e a c a a e ea e e N A e ca a G ea B a a a c a fe e c a affec e a c e A e f AS H a e a ea a G ba A a e e e e e GT AH P e ENG a e e ENG ENG

ENGL 280-3. Film and Fiction. T a c e a e a e e a f a a ce b c a e a a e W a a e a e e a ce e e a a ea f c e a a e M ca a ea a f e f e a e ba f c ca a a P e ENG e a e a ENG ENG

ENGL 290-3. Topics in Literature. W e e c a e b e e e a c c e a a f c a a e a ba a a e e e f e a ea c ca c a e ec ca e ce A e f AS H a e a ea e e e P e ENG a a e e a e a ENG ENG

ENGL 291-1 to 3. Topics in Literature. T c a f ea ea a a a be ffe e a e e e e See a c e c e e f Fa S Ma be e ea e f ce e f e a e c a P e ENG e a e a ENG ENG

ENGL 300-3. Literary Criticism in Theory and Practice. I ce e a c ca e c e a e a f e ea e e e a a e e ea E fac e be e a e c ca e c a e P e ENG a ENG ENG

ENGL 301-3. Advanced Composition. W a ffe e e a a ce ec a e a ce e e e e f e ca a e e S ec c ec a a TEP ec f ENG a e a e c a a e e f a a e ce b c c e P e ENG a ENG e a e

ENGL 302-3. Intermediate Rhetoric and Writing. E e a e ca a e e a e e e c ec e e ce S e f e e e e ea c a a e ec e c a e ce ea a ec ea a e ea c e a a P e ENG a ENG e a e

ENGL 303-3. Intermediate Creative Writing – Poetry. F ee e e ce e f e W a ac P e ENG c e f c

ENGL 304-3. Intermediate Creative Non-Fiction. F c e a a a e c e e e e e e f e a a b a ca T c e e e ca a e ca c e c e ea a c fe a T e e ea f e a a e a f fea a ee e e ce a f ee a e e P e ENG c e f c

ENGL 305-3. Intermediate Creative Writing: Fiction. E e c e e ce a ce a c ca c f e ef f c e e B c e f c Ba e e a e e ea ab e W a ac Ma be a e ce f ce

ENGL 307-3. Business and Administrative Writing. F a e a e eca b e a fe a e f e ee e ee f a e a a c ec a e e a P e ENG e a e

ENGL 309-3. Technical Writing and Presentation. T c e e e eac e e e ec ca f a effec e b e e a a e e a I a a e ec c ca acce f a e f e e f b e a a e e a P e ENG e a e

ENGL 311-3. Advanced Grammar. P e a e e ca ca a ac ca f a a a e e e a a e e a c a a e a fe a T ee a e a a c e f a a a e ec a c a a S e ac ce a a e f ec e f a e e e P e ENG e a e a bac e e ee

ENGL 312-3. Technical Editing and Style. F c e e a e e f e c fea e f fe a I a c a c ce e a c e a a ca c c e e c e c c e e e a acc ac S e ac ce a a e f ec e f a e e e P e ENG e a e a ENG a bac e e ee c c e

ENGL 313-3. Web and Print Document Design. E a e a eb ba e e a e e ec c e f c e f a a e f fe a a e ce Eac ec e e a a a e e a a e a a f f ee e e bef e b f e a c P e ENG e a e a ENG ENG a bac e e ee c c e

ENGL 314-3. Managing Writing Projects in Business and Industry. P e a e e ca f a e f a a ec a ac ce c ab a e ef a a e ea Eac ea c ee a ec c ab a e ce P e ENG e a e a ENG ENG a bac e e ee c c e

ENGL 315-1 to 3. Professional Writing Internship. G e e a a e a e e a a ac ca e e e ce e b W f a a a a c a e I e P a e e f f e a e e e ec e f e e e e f ce 8 f ce a f ce I e a e e a a e b a e a e a a ee a ee f e e e e ce a ea a e e c a a e a a e e e e e ce P e ENG e a e a bac e e ee a a ea ce P fe a W c e

ENGL 316-3. Tools for Technical Writers. S e ea e e a a f a e c ca ec ca e a e c e a f e a e F a e Ma e A be Ac ba MS W MS P e P F Pa e a Pa S P a e P e ENG e a e a ENG ENG c c e

ENGL 320-3. Women Writers and Women's Experience. S f e e e e e a e beca e f e a a e c f e e Ma be e ea e f ce e f e a e c a P e ENG ENG Mee WMST

ENGL 332-3. Born in the USA: Masterpieces of American Literature. A f e b A e ca a e f c e a a a e c e a e ea f e e a e c a a ca c e E a fc a e a a e ec e f A e ca ec e c e ea b Na e A e ca Af ca A e ca A a A e ca a a a e A e f AS H a e a C a D e e e e N E a P e ENG e a e a ENG ENG

ENGL 338-3. Survey of American Literature I. S e e f a a e f A e ca e a f e e a e f E ea e c e Ne W A e a C b Cabe a e Vaca S e A e ca R a c P e Ha e Me e a e ec a a ca c e c e e ea e ee ce I c e f P a ea f e Je e a e Ca Na a e e e ea ca e f B a ee a Ta a e ec ee f e e e b c a a D a a W a fa ebe e a e e e be f ace ca a P e ENG e a e a ENG ENG

ENGL 339-3. Survey of American Literature II. S e e e e e f A e ca ea ce f e C Wa e a e e e a f Da C a ea D c ee e f A e ca M e e a e W a E See A e He a Fa e c c e Na e A e ca Re a a ce f e a I c e c e a T a Ja e W a a C e a e ace ea a a e Ne W a a e a e e e e e f e Af ca A e ca ea a e f Wa D B T e W a H P e ENG e a e a ENG ENG

ENGL 346-3. Race, Writing & Difference in the Contemporary American Novel. A f a e a e e e e fa e a e f A e ca e c ea e ec ee a e a e e a e f e e f e Af ca A e ca a a H a c A a A e ca a Na e A e ca e e e ce T ee c e a e c e a c a a ec e e a e e ce P e ENG e a e a ENG ENG EST Mee EST

ENGL 353-3. Literature of the English Renaissance, Excluding Shakespeare. E e ec a c e e e f S a e ea e f a ea e e c a a S a e ea ea e c a ce a a f f e P e ENG a a e e a e a ENG ENG EMST

ENGL 355-3. Native American Literature. P e e e ece a c a a ea bac e e e a a a ec a e e f e a f Na e A e ca ea e P e ENG a a e e a e a ENG ENG Mee EMST

ENGL 360-3. Contemporary African American Literature. P e e e ece a c a a ea bac e e e a a a ec a e e f e a f Af ca A e ca ea e P e ENG a a e e a e a ENG ENG EMST Mee EST

ENGL 375-3. Grant and Proposal Writing. I ce e e e ca ce f a a a e f a be e e a ea e e be e a a a e e f a a a e e a b e a a P e ENG a e e ENG ENG c c e

ENGL 381-3. Writing Across the Curriculum: Tutoring Critical Thinking Across the Disciplines. C e e a e e ce e e Sc e ce S ca Sc e ce a H a e a a e e e e e ec c e f a c e S e c e e a ac c c e e e e W Ce e ca P e ENG a ENG

ENGL 385-1 to 3. Advanced Topics in Professional Writing. I c e e e e e e c e c fe a T c a c a f e e e e e e P e ENG ENG c c e J a

ENGL 390-3. Topics in Literature. W e e c a e b e e e a c c e f c a a a a e e a b a a e e e f e a e a c c a c a e ec c a e c e A e f AS H a e a e a e e P e ENG a e e ENG ENG

ENGL 391-1 to 3. Topics in Literature. T c a f e e e e e C e c Fa a S c e e Ma b e a e e f c e e f e a e c a P e ENG e a e a ENG ENG

ENGL 395-3. Chaucer. S f a e a C a e b T a e R e a b e e E c e a a e e c e e f e e P e ENG e a e a ENG ENG

ENGL 397-3. Shakespeare I: Comedies and Histories. P e ENG e a e a ENG ENG

ENGL 398-3. Shakespeare II: Tragedies and Romances. P e ENG e a e a ENG ENG

ENGL 410-3. Advanced Creative Writing. F c e e e a e a e a e e a e e a c e f a a c f b c a a f e e e e e f c c a c e S e b a e e f e c a e a a e a e c e c e c a f W a a c a e e e e c e e Ge e a P e ENG

ENGL 420-3. The 18th-Century British Novel: Defoe to Austen. T a c e e e e c e f e e f b e a e a 8 c e a f a b e a c e E a e c a c e a a e e c e e f c a a c e a a e e A c e D e f e R c a Fe S e e a A e P e ENG e a e a ENG ENG Mee ENG

ENGL 421-3. The 19th-Century British Novel. C a f b a b e a e e e c e E a e a B e f e c e a e a c e A c e e B e D c e E a Ha P e ENG e a e a ENG ENG Mee ENG

ENGL 423-3. Development of the American Novel I. S f e A e c a e f b e e f C a e B c e B e ce c c e f He Ja e W e a e b e a c e e e f A e c a e a e e f c a e c e f c a P e ENG a a e e a e a ENG ENG Mee ENG

ENGL 424-3. Development of the American Novel II. C a f ENG C e e e e f e e a c e f b e f e ce a e a e f W a P e ENG a a e e a e a ENG ENG Mee ENG

ENGL 425-3. Contemporary Novel. S f a e a e e e e e e e a B a A e c a e e c e P e ENG e a e a ENG ENG Mee ENG

ENGL 430-3. Studies in American Literature and Culture. A a c e f c c a e a A e c a a e A e c a e a e a e f e A e c a f e Ma b e e a e f c e e f e a e c a P e ENG e a e a ENG ENG Mee ENG

ENGL 440-3. Genre Studies. T c a c e e e a e c a a c e c e a a c c e e e a c e a e Ma b e e a e f ce e f e a e c a P e ENG e a e a ENG ENG Mee ENG

ENGL 450-3. Studies in Anglo-Saxon and Medieval Literature. S f a e e a a a f e e a E e Ma b e e a e f c e e f e e a e c a P e ENG e a e a ENG ENG Mee ENG

ENGL 480-3. Peer Tutoring: Writing Across the Curriculum. S f c e e e a a c e e f S e a c a e f e e e E c e W C e e e R e f e e a c e e A a a a e c a a e e c a e e P e ENG a ENG Mee ENG 8

ENGL 483-3. Rhetoric and Writing: Survey in Contemporary Approaches to Teaching Writing. T e e c a a a c c a f c e e a c e e c e E e e e c a a e f a a e e c a e a e e a c e a c a c c e f See e Sc e e f C e f e c a e e e e P e U e a e f c a ENG a ENG c e e a e Mee ENG 8

ENGL 484-3. Practicum for Writing Instructors. T a a c c f c a e c e e e e T e e c a a c a c a e e f a b c e a a c a a e a Ma b e a e f a a e Pa Fa Mee ENG 8

ENGL 485-3. History of the English Language. O e f e f e E a a e c a b e f e f c a e f a a c a f a f e c a b a Mee ENG 8

ENGL 486-3. Special Topics in Rhetoric and Writing: A a c e e f e e e c a a a c c a a c c e f e a e a c e e c a c e R e e a c a c e f c P e ENG a ENG e a e c e Mee ENG 8

ENGL 495-3. Seminar in Literary Topics. C e c a b e e e C e c Sc e e f C e e a c e f e c c c e c e Ma b e e a e f c e e f e a e c a P e ENG e a e a ENG ENG Mee ENG

ENGL 498-3. Seminar in Major Authors. A a e f e e e e e e a a b e ffe e a e e a C e c Sc e e f C e f e c c f a Ma b e e a e f c e e f e a e c a P e ENG e a e a ENG ENG Mee ENG 8a WMST 8 f a a e

ENGL 520-3. The 18th-Century British Novel: Defoe to Austen. T a c e e e e c e f e e f b e a e a 8 c e a f a b e a c e E a e c a c e a a e e c e e f c a a c e a a e e A c e D e f e R c a Fe a A e P e ENG e a e a ENG ENG Mee ENG

ENGL 521-3. The 19th-Century British Novel. C a f b a b e a e e e c e E a e a B e f e c e a e a c e A c e B e D c e E a Ha P e ENG a a e e a e a ENG ENG Mee ENG

ENGL 523-3. Development of the American Novel I. S f e A e c a e f b e e f C a e B c e B e ce c c e f He Ja e W e a e b e a c e e e f A e c a e a e e f c a e c e f c a P e ENG a a e e a e a ENG ENG Mee ENG

ENGL 524-3. Development of the American Novel II. C a f ENG C e e e e f e e e a c e f b e f e ce a e a e f W a He a F e a D e e W a e P e ENG a a e e a e a ENG ENG Mee ENG

ENGL 525-3. Contemporary Novel. S f a e a e e e e e e e a B a A e c a e e c e P e ENG e a e a ENG ENG Mee ENG

ENGL 530-3. Studies in American Literature and Culture. A a c e f c c a e a A e c a a e A e c a e a e a e f e e a A e c a f e Ma b e e a e f c e e f e a e c a P e ENG e a e a ENG ENG Mee ENG

ENGL 540-3. Genre Studies. T c a c e e e a e c a a c e a a c c e e e a c e a e Ma b e e a e f c e e f e a e c a P e ENG e a e a ENG ENG Mee ENG

ENGL 550-3. Studies in Anglo-Saxon and Medieval Literature. S f a e e a a a f e e a E e Ma b e e a e f c e e e f e e a e c a P e ENG e a e a ENG ENG Mee ENG

ENGL 580-3. Peer Tutoring: Writing Across the Curriculum. S f c e e e a a c c e e f S e a c a e f e e e E c e W C e e e R e f e e a c e e A a a a e c a a e e c a e e P e ENG ENG Mee ENG 8

ENGL 583-3. Rhetoric and Writing: Survey in Contemporary Approaches to Teaching Writing. T e e c a a a c c a f c e e a c e e c e E e e e c a a e f a a e e c a e a e e a c e a c a c c e f Rec e e f e a fe a e e e e a c e b c c a e c e e e e a e e f e e e e a a e e R e c a C De e a a a a e e a Mee ENG 8

ENGL 584-3. Graduate Practicum for Writing Instructors. G a a e a a c c f c a e c e e e e T e e c a a a c a e e e f a b c e a a c a a e a Ma b e a e f a a e Pa Fa Mee ENG 8

ENGL 585-3. History of the English Language. O e f e f e E a a e c a b e f e f c a e f a a c a f a f e c a b a Mee ENG 8

ENGL 586-3. Special Topics in Rhetoric and Writing. A a c e e f e e e c a a a c c a a c c e f e a e a c e e c a c e R e e a c a c e f c P e ENG a ENG e a e c e Mee ENG 8

ENGL 595-3. Seminar in Literary Topics. C e c a b e e e C e c e Sc e e f C e e a c e f e c c c e c e Ma b e e a e f c e e f e a e c a P e ENG e a e a ENG ENG Mee ENG

ENGL 598-3. Seminar in Major Authors. A a f e e e e e e a a b e ffe e

a e ea C ec Sc e e f C e f ec c f a Ma be e eae f c e e f e a e c a e P e ENG e a e a ENG ENG Mee ENG 8 a WMST 8 f a a e

ENGL 696-3. Renaissance Drama Exclusive of Shakespeare. G a a e e a a f E abe a a S a a af e 8 e c f e eae C ea f e e e a e b e e f c e a e a a ce ec e f e c e P e ENG a a e e a e a ENG ENG

ENGL 940-1 to 3. Independent Study in English. S e a e f e e e c e c e f e E fac A e e e e e c e e e fac a e e e c f e ea c c c e e e a E c e ffe A a f c be ec e f e e a e c a bef e e a Ma be e eae f c e e f e a e c a e

ENGL 950-1 to 3. Independent Study in English.

ETHNIC STUDIES

EST 200-3. Introduction to Ethnic Studies. I c E c S e f c e a ca c e a e e e ec e a c a e e f US A e c e c e e c ce c a aca e c f a a e a e e e ea a ace e c e e e a e a ca a e A e f AS H a e a C a D e Re e e GT AH

EST 201-3. Introduction to Race and Gender. T c ca a a c e e a e ace a e e ce I f c e f e a ae a a e a e e ae A e a be ace ec ce f ca ca e A e f AS S ca Sc e ce a C a D e e e e Mee WMST

EST 202-1. Introduction to Diversity Issues. T c ca a a c e e a e e ac a ca e e f ffe e ce a e e e f c a ce a e f e a ae a a e a e e ae S f a e e ab e be e e O e ON Y e a e NOT a e WMST WMST EST EST Mee WMST

EST 205-3. Jazz History. E a e e f Ja ca c e S a e 8 ca e e e e ce a e e e f A e ca a f e e e ce ea ab e a c b e e ca e a Ja e a e ca a ca e ec e f A e f AS C a D e e e e Mee MUS

EST 211-3. Introduction to Teatro Chicano. A c e f e ca e e e e e PES

ENSC 162-1. Solar Energy Laboratory. Ha ab ca e a e e e a ec e a e ce c e a e a e e a a e a b a ea ac e a e e e P e C e ENSC Mee PES

ENSC 250-3. Energy Fundamentals. Pa e e a f e f a e e e e a e e c ce a f a e a e ef ce c f e e c e ea a fe c e ca eec c a e a e e e ce e e a a ca e e c e a c e a a eb ac e T e c e e e f ce ce a a a e e e e f ca c a e ca ce ce Mee PES

ENSC 320-4. Practical Meteorology. A c ea e e e e a e e ca e e a e a ca c e a ac ca a ca I c e ea e e e e a a e c ec a a e ea e e ea e a a a f eca ea e c a ca a c e e e e e e f e e ca a c e ea e fac e be e ea e ee ca c e ac a b e a Mee GES

ENSC 361-3. Solar Energy Design. A f e ec e e f c e a e f a ce e c fac ea a e a e a e G a ca c e a e a e e f a ce a e ca a e be c e e Mee PES

ENSC 365-3. Nuclear Energy. N c ea c e a e c ea eac a f E a c ea e c a e e a ac

ENSC 367-3. Exotic Energy Sources. A e f e ec f e e a a cea e e c e c c a c a ec e e ec ec a c f e e e e e a a ec a e e a e a

ENSC 406-4. Introduction to Remote Sensing. T e ac a e ea fe e aa a a e ce a a b ae a a a e a e T a ec e e c e c e e e f a e f a a a a ec e P e GES GES Mee GES a GES

ENSC 409-4. Image Processing. A c e a a ce e f e ce a a e e e e a e A e e a f e e ec a e c ec be c e E a be ace e a a e a a b c c e f ANDSAT a a N e a e e e ce e e P e ENSC GES Mee GES a GES

ENSC 460-3. Advanced Solar Energy. F a e a ec ca c e f a e e S a a a a a a e Ra a ea c ec e ea a fe O ca e e f a e a O ca a e a a a f a a ea c ce a c ec A a fac ea a e e e f a ce c e ea ea ca I c ac P e PES a MATH PES a a e ec e e Mee PES

EST 200-3. Introduction to Ethnic Studies. I c E c S e f c e a ca c e a e e e ec e a c a e e f US A e c e c e e c ce c a aca e c f a a e a e e e ea a ace e c e e e a e a ca a e A e f AS H a e a C a D e Re e e GT AH

EST 201-3. Introduction to Race and Gender. T c ca a a c e e a e ace a e e ce I f c e f e a ae a a e a e e ae A e a be ace ec ce f ca ca e A e f AS S ca Sc e ce a C a D e e e e Mee WMST

EST 202-1. Introduction to Diversity Issues. T c ca a a c e e a e e ac a ca e e f ffe e ce a e e e f c a ce a e f e a ae a a e a e e ae S f a e e ab e be e e O e ON Y e a e NOT a e WMST WMST EST EST Mee WMST

EST 205-3. Jazz History. E a e e f Ja ca c e S a e 8 ca e e e e ce a e e e f A e ca a f e e e ce ea ab e a c b e e ca e a Ja e a e ca a ca e ec e f A e f AS C a D e e e e Mee MUS

EST 211-3. Introduction to Teatro Chicano. A c e f e ca e e e f c e a Tea C ca f S a a a a a c e f ea e ac ec a a c Mee THTR

EST 290-3. Special Topics. Offe e a e a ec ca ea a e a ba P e EST ec e e

EST 300-3. Race and Gender at the Movies. T c ca a a ca f c ace a e e e fac a ea e a f e e e e a be a ce a e e a f ca ca e A e f AS S ca Sc e ce a ea e e e P e WMST EST WMST EST Mee WMST a FI M

EST 305-3. Race and Ethnicity in American Politics. A ea a f e e f US e c A e ca c f e e ec e f e e e e T c c e ca a c e a e ec e e ca ac e e e a e a a f US e c e e ea f e ace e c a ca e e e effec f e ca e e e a e ac f e e e ca e Mee P SC

EST 310-3. Women of Color: Image and Voice. A ea a f e a c e e ec f ace e c a e e a ec ce b a a a a a A e ca fe a e e c e T ec e a e a ea f e e ce f a ea fe a e a ec c f a e a e e e e a b e f c A e f AS H a e a ea e e e P e WMST EST Mee WMST

EST 323-3. The Chicano Community. S f e e e e a c e e f e C ca c I c e e f e Ba e c e ca a e a ec e e ce f e ce a c a P e SOC SOC Mee SOC

EST 324-3. African American Community. S f e e e e a c e a a e f e b ac c E c a e a e a f b ac c ea a e a ec e e ce f e ce a c a P e SOC SOC EST Mee SOC

EST 325-3. The Prehistory and History of Native American Cultures of the Southwest. T e e a e a f e I a c e f e S e A e f AS C a D e e e e Mee ANTH

EST 328-3. The Asian American Community. T c e e a e e a c A a A e ca S e I e A a A e ca ca a a a ca f e 8 e e e e e f a fa ab c ac a e a ce P e SOC SOC EST

EST 329-3. Perspectives on Race and Ethnic Relations. A e f ac c a e ce a a e a f e ea be e e a a e ec e a ea a f e A e f AS C a D e e e e P e SOC c e f c Mee SOC

EST 342-3. North American Indians. A e f e a ec e f A e ca f Me c E a e a b c e a ea a e f ca a a A e f AS C a D e e e e P e ANTH ANTH c e f c Mee ANTH

EST 343-3. African-American Art. I c
c e a Af ca A e ca a f
c f a a Af ca a e ce
A e ca Bac c e Mee A H

EST 346-3. Race, Writing and Difference in the Contemporary American Literature. A f e
a e a e e e efa e a
e f US e c e a e P e ENG
ENG EST a ENG a a e
e a e Mee ENG

EST 350-3. Chicano History to 1910. A a a c
e c f C ca ab T c e
e a e e e ea a e a e f b
e f e b e a e e e f
S a ea e e f e A e ca S e
A e f AS C a D e e e e Mee
HIST

EST 351-3. Chicano History Since 1910. A b a
e c f C ca ce T c e e
a e e e ea a e a e f b e f
e b e a e e e f S a ea
e e f e A e ca S e A e f AS
C a D e e e e Mee HIST

EST 352-3. History of Latinos in the US. C e
c e e e f US a c e a a
A e ca a e US f e 8 e
e e A e f AS C a D e e e
e Mee HIST

EST 355-3. Native American Literature. T c e
e e e e e e ece a c a
a e a bac e a a a ec a e
e f e a f Na e A e ca e a e
P e ENG ENG EST a ENG
a a e e a e Mee ENG

EST 358-3. Immigrant Histories. T e f
a a f a A e ca Af ca e
M e Ea a E e a f 8 e e e be
e a e E a be ace US a
a e e e e fe c ba e c e a
c ec US c A e f AS C a
D e e e e Mee HIST 8

EST 360-3. Contemporary African-American Literature.
P e e e e ece a c a a e
a bac e e e a a a ec a e
e f e a f Af ca A e ca e a e
P e ENG a a e e a e a ENG
ENG EMST Mee ENG

EST 362-3. Race and Gender in the Media: The Matrix Seminar. S e a a e e a e f
e a e e e e e a a
c ca a a e e e e e ce
be e e a ec e e ce f e a e a e
H e ca c e a e c a e a e a be
e P e WMST EST Mee
WMST

EST 363-3. Gender and Race in Biblical Literature.
C e e a e e e e ce e a
e e a f e e a ace b b ca e a e
a e e a be e ca e e e e
e e a e P e EST ec e e Mee
PHI a WMST

EST 366-1 to 4. Ethnic Minority Communities: Service and Learning. P e e e e
ac ce e e e ca e e a e EST
c e e c e f ace e c
ba e a a a e e e c e
a e ace e c C a S P e EST
c e f c Mee WMST

EST 372-3. "From Slavery to Freedom": Slavery and the African-American Experience in Colonial and Antebellum America. I ce e e a
ca c a a c a e e e e
f Af ca A e ca f Rec c
Mee HIST

EST 373-3. Vision and History in Native-American and African-American Narratives. E a e a b a
a b a N A e ca ac e e ec
e a e a f A e ca I a a Af ca A e ca
e e c ca Mee HIST

EST 374-3. African-American Social and Political Thought, 1790-1980. S e e ca ba f
c ca N A e ca a c
Af ca A e ca c e Mee HIST

EST 390-1 to 3. Special Topics. Offe e a e
e a e a ec ca e a e a ba P e
EST ec e e

EST 401-1-3. Special Topics. Offe e a e e
a ec ca e a Ma be e e a e f ce
e f e P a D ec P e EST
c e f c

EST 440-3. Indigenous Peoples and Cultures of the Southwest. I e e c a a f
e e e e a c e f e S e
P e C e f c Mee ANTH

EST 442-3. Hispanic/Latino US Literature. S f
e f e a C ca a P e R ca a
C ba A e ca e e U e S a e Ta
S a P e SPAN c e f c Mee
SPAN a SPAN

EST 443-3. Hispanic US Drama. T e a ca f
C ca a P e R ca a US C ba e c
Va e P e M a M Ta S a
Mee SPAN a SPAN

EST 444-3. Hispanic, Chicano/a, and Mexican-American Literature. T e e a a fe a f
a f Me ca e a e e a
e Ta E Mee SPAN a
SPAN

EST 445-3. US Cuban Literature. S ce a
e e e ce C ba a e e US
a be a e e e a c a e a e
a f e e Ta S a P e SPAN
a SPAN Mee SPAN a SPAN

EST 471-3. Asian American History. C e ace
e ca ca ec c a c a f
A a A e ca f e e a e e e f e e
ee ce e e e Mee HIST

EST 485-3. Gender and Race Theory. E a e e
e f e e ace ca a e a a e ec
e f e a E a be ace
c e a fe a a ac e P e EST
WMST EST WMST

EST 495-3. Capstone Seminar. A ca ec e
a e b e E c S e T
c e e e fac a e a e f a a
bee e e a a e a
a e e e a US e c a
c e ac ce P e EST EST
e a Mee WMST

EST 940-1 to 3. Independent Study in Ethnic Studies.
P e a a ce e
c a c ec e e e e e
f e bec f eca e e P e EST a
c e f D ec

FILM STUDIES

FILM 100-3. Introduction to Film Studies. Ba c
e c a e e a a We e
a a a a a e c e a T e e c e
c ca a fe c e e a
e c e a e e a a e
A e f AS H a e a e a e e e GT AH

FILM 200-3. Narrative Film. A c a a f ba c
a a a f Fl M T c e e e
e a a c e a a e c e a a e
e c f a e a e e ca e a e a
c a a c f a a e e e A e f AS
H a e a e a a G ba A a e e e e e
P e Fl M c e f c

FILM 280-3. Film and Fiction. E a e e a
f a a ce b c a e
a a e W a a e a a e e
a ce e e a a e a f c
e a a a e M ca
a e a a f e f e a
e ba f c a a a

FILM 333-3. Film, Video and the Avant-Garde. A
e a a f e e a be e e a a a e
a e a e e f e a c e e a
a T e c e c e e a e f
a c a Ma Ra Ma a De e A Wa a
I a a c J e Mee A H

FILM 345-3. German Film. Sc e e e c e c
e e f Ge a e e e Ge a
a c a c e f be e e e fea
c e c a a V Se be Refe a
Sa a T e e Fa b e Sc ff We e A
a T e Mee F CS a GER

FILM 355-3. Hollywood History. A c ca e a
a f H f ea be e
e e S e c f c e a a
e e a e a e e ce c e a
a A e ca e ce

FILM 369-3. Topics in Hispanic Film. T e c e a c
a fe a f e c e a e a e f
H a cc e a e e e a a ca
a c Ma be e e a e ce f e
c ffe e Mee F CS a SPAN

FILM 371-3. Great European Film Directors: A Historical View, 1945-1994. A f e
f c e a f ea E ea e c
f P WWII e f De Sca A Fe
Pa Ta Pa a a Wa a Ja a a
G e e a C e be a a abeeec ef a a
a ce ce a Mee I D

FILM 372-3. Russian Avant-Garde Cinema: A Historical View, 1915-1995. A f f ea ea
f R a a S e c e a f ea
e c E e e Ta Pa a a S e
a e f E e
e c e a c e e fea e e a e a
e e e ea e e A a abeeec ef a a
a ce ce a Mee I D

FILM 373-3. Russian Art Cinema Today: A Historical View: 1989-1997. A e f e a e a e
e f be e c a c c a
I e a S M a a a e a a e e
e c b bec e c a c E e
e c e a c e e fea e f e
a a abe c e c a A a abeeec ef a a
a ce ce a Mee I D

FILM 385-3. Austrian and Central European Film.
Sc e e e c e a c a e c e
c e e e f Ge a e e f
Ge a T a e f A a c e a
a c a c e f e be e e e
a e a H a a a C e c a a
D e c a Fe c a F Ha
Ma c a C R a Ha e e a e fea e
Mee F CS 8 a GER 8

FILM 390-3. Special Topics in Film Studies. Se e c e
c e e a a e e c f P e
Fl M Fl M c e f c

FILM 395-3. Women in Film. Se e c e c ea
e a e f e e a a c e a
Mee WMST

FILM 399-3. European Film – European History.
T e f E ea c c a
e e e E ea c e c a c e
T c c e e a a cac e a
b ca a a a ece
e e e e f ec e e
E a a b e e e Mee HIST

FILM 403-1 to 3. Internship in Film Studies.
S e e e f a ce e e a e e ea b a e e ce e a a fe a P e Fl M a Fl M a a ace a F VAPA a a F S e b c e f c

FILM 411-3. French Film. T e e f Fe c c e af e e e e a a e a c a c b a e f a a c ece ec e a e e ec e e f C e e f ec c a Me e Re G a Va a Je e a C Ta E Mee FR

FILM 425-3. Directors in Focus. A e f e fa e ec a f ea e ec C ec e a e ca e e e P e Fl M a Fl M c c e

FILM 450-3. Film Theory. E e a e e ca a ac e c e Ba a Fa f c a e e c a fe e c e aaa c aa a e e P e Fl M Fl M a e f e c

FILM 940-1 to 3. Independent Study. I e e e f e a ae B ecaa a e e efac P e Fl M a Fl M a a ace a F VAPA a a F S e b c e f c

FOREIGN AND CULTURAL STUDIES

F CS 101-4. Selected Topics in Strategic Languages I. Ee e a a aeS e a a a a ae c a a ae Aabc Ca b a C e e Fa P e a ea T a a Ve a e e P e f De a e C a

F CS 102-4. Selected Topics in Strategic Languages II. Ee e a a aeS c e e a a a a ae c a a ae Aabc Ca b a C e e Fa P e a ea T a a Ve a e e P e f De a e C a P e F CS

F CS 211-4. Selected Topics in Strategic Languages III. I e e aea a e e a a a a e c a a ae Aabc C e e P e e Fa ec P e FCS

F CS 318-3. German and Austrian Civilization and Culture. ec e ea c E e e f Ge a e e S f e e e f Ge a a A a c ea f 8 e a ea e a a c A e f AS H a e a e a a G ba A a e e e e e Mee GER 8

F CS 319-3. 20th Century German and Austrian Civilization and Culture. ec e ea c E e e f Ge a e e S f e e e f Ge a a A a c e a f e e e e a e a e e a a A e f AS H a e a e a a G ba A a e e e e e Mee GER

F CS 322-3. Japanese Culture and Civilization. Ma c e f Ja a e e c a f be e c e a e H a ca e e f c a ffe e ce a E

F CS 323-3. Southwestern Culture Studies. Ta E Ac a c f e e e U e Sa e a Me ca e e ce

F CS 324-3. Modern French Culture and Civilization: France from 1700-1917. S e e ce ea f e Fa ce f ec e f e A ce Re e e ea a fE e e a Re e l a Re a W Wa l E a be e ec f ca c f c a e e a a c e e e e f Fa ce A e f ASH a e a e a a e e e Mee FR

F CS 327-3. Francophone Cultures. A e e e a a f ca e e c e e a a c a c a ffe ce a e f c ce e a e e a c a ca ec ca c e a a a e Rea be a f a a e f ce a f ca c e a a e a e e c e a e a a e f Fa c ea ea Ta E Mee FR

F CS 337-3. Origins and Development of Russian Cultural Traditions. Tace e e e e fR a c a a a f e e a e ec e f e Sa c e e c e a ce Te ac fe f e a a a a e a e R a a be a a e e a e Se ca e a e e e f R a e a e c a a e a ea ce e a e a e e f ea e S e e

F CS 339-1 to 3. Internships in Foreign Cultures. T e a a ea C e e a e ffe a a ce a a e e e a e e e c a c ca a e ce ec Ma be e e a e ee e Pe e e c e a e f e e a e

F CS 345-3. German Film. Sc ee ec e c e e f Ge a e e Ge a ac a c e f be e e e fea c ec a a V Se be Refe a Sa a T e e Fa b e Sc ff We e A a T e Mee GER a Fl M

F CS 349-1 to 3. Internship in Foreign Cultures. T e a a ea C e e a e ffe a a ce a a e e e a e e e c a c ca a e ce ec Ma be e e a e f ce ee e Pe e e c e a e f e e a e

F CS 356-3. German Literature in Translation. Ma e f Ge a e a e e e e e a ea e e Rea e e f Ge a e e a E Mee GER

F CS 359-3. Deaf Culture. E a e ec e f eaf e e Tec e e e e c a e a e a e f e eafc A e ca P e AS a AS Mee AS

F CS 369-3. Topics in Hispanic Film. T ec e a c a fe a f e c e a e a e f H a cc e a e e e a a ca a c Ma be e e a e cef ce f e c ffe e A e f ASH a e a e a e e e A e f AS G ba A a e e e e e Mee Fl M a SPAN

F CS 385-3. Austrian and Central European Film. Sc ee ec e a c a e c e c e e e f Ge a e e f Ge a T a e f A a c e a ac a c e f e be e e e a e a H a a a C ec a a D ec c a Fec a F Ha Ma c a C R a Ha e e a e fea e Mee Fl M 8 a GER 8

F CS 389-1 to 3. Field Studies in Language and Culture. De e b ca a e e a a ec a ec f e a e a ffe a a e c e a c a Ma be e e a e cef ce e a e e e a cae A e f ASH a e a e a a G ba A a e e e e e Pe C e f c

F CS 399-3. Topics in Foreign Culture. Offe e a e e a ec ca e a f e e Pe Pe f c

F CS 421-3. Hispanic Heritage of Colorado. T e f e a a a fH a c e a e f e ce e e e A e f AS H a e a e a e e e A e f AS C a D e e e e Mee SPAN a EST

F CS 441-3. Studies in US-Mexico Border Literature. T e e a a fe a f US Me c b e e c e e e e a a ef a ce a S e f e e be Sa e be E P e SPAN c e f c Mee SPAN

F CS 450-1 TO 3. Seminar in Foreign and Cultural Studies. Se a a c fe e ce F e S e be c c a a e a e c O ffe e E e e S e

F CS 589-3. Field Studies in Language and Culture. A ca a ff ca a e ca a e e a e c e c a a e c e a c a Ma be e e a e cef ce f e ca e a e ffe e P e C e f c

F CS 930-1 to 4. Independent Study – Undergraduate. I e e e a e e a a e e e FCS

F CS 950-1 to 4. Independent Study – Graduate. I e e e a e a a e e e FCS

FRENCH

FR 101-4. Beginning French I. E e a f Fe c a a a e e a a ea a a a

FR 102-4. Beginning French II. E e a f Fe c c e A a a a a ac ce c ea e a a ea a P e FR e a e

FR 211-4. Intermediate French I. Fe c a e e e a e e e c ce a c ea c e a c a a ea ea a e e P e FR e a e c

FR 212-3. Intermediate French II. A e e a e Fe c c e c e a a a ea c a e a c e a a e a e a e ec P e FR e a e

FR 293-3. Business French. T e cab a a a e f e f a ce a c e ce A e b e c e e ce a e a a acc e e P e FR

FR 300-3. Advanced French Grammar. A c e e e e e e e e e ef c a a ca f e Fe c P e FR e a e

FR 301-3. French Conversation and Composition I. P ac ce c e a e a e a ca a c e e c e e a a e e a a c ca a e a a ea ba P e FR e a e

FR 302-3. French Conversation and Composition II. P ac ce c e a e a e a ca a c e e c e e a a e e a a c ca e a e a ba P e FR e a e

FR 303-3. Advanced French Conversation and Composition. P e FR FR e a e

FR 304-2. Advanced Pronunciation and Phonetics. A e e a c ef e a ce e e a e a e e a ef e f a e ca W f a e e c e fFe c ca e e e a ea e a e ea be e e a a a eec P e FR c c e e e

a ac ca a ca f e a c f ea
e ea Pe FR e ae

FR 311-3. Main Currents of French Literature I. A
c e Seece ea e e e e
a e e e e f Fec ea e
Pe FR e ae

FR 312-3. Main Currents in French Literature II. A c e fFec ea e
f Ne ca c e e e Pe FR
e ae

FR 317-3. Advanced French Readings, Conversation and Composition. T c e a ace Fec
ba e ca c a e a e
c e a a e a e a e a
Pe FR FR e ae

FR 323-1. Applied Conversation. C e a a
ea a ce e e c e a c Fec
c e Pe FR e ae

FR 324-3. Modern French Culture and Civilization: France from 1700-1917. S f e ce a f
e Fa ce f e c e f e
Ace Re e e a a f E e e
a Re e l a Re a W
Wa l E a be e e c f ca
c f c a e e a a
c e e e e e f Fa ce Ta
E A e f AS H a e a e a e e e
Mee FCS

FR 325-3. 20th Century France: Civilization and Culture. S f Fe c c e a a e
a e e e e f 8 e e e e a
e e a be e e ca ca c e
a a e e a e e e e a e a e
e a a Ta E A e f AS
G ba A a e e e e e Pe FR FR
e a e f a e f Fe c c e

FR 327-3. Francophone Cultures. A e e
e a a f ca e e c e e a
a c a c a ffe e c e a e f c c e
e a e e a c a ca ec
ca c e a a a e Rea be a f
a a e f c e a f ca c e
a a e e a e c e a e a
a e f Fa c e a e a Ta E
Pe FR FR e a e f a e f Fe c
c e Ta E Mee FCS

FR 339-1 to 3. Internship in Applied French. T e
a a e a C e e a e ffe a a c e
Fe c a a e e e a e
e e f Fe c e c a c ca
a e c e e c Ma b e e a e e e
e f c e Pe e e Fe c c e a
e a e a e

FR 349-1 to 3. Internship in Applied French. T e
a a e a C e e a e ffe a a c e
Fe c a a e e e a e
e e f Fe c e c a c ca
a e c e e c Ma b e e a e e e
e f c e Pe e e Fe c c e a
e a e a e

FR 350-3. Special Topics in French. Va c f
c e a c e e a a c c a
Ma b e e a e c e f c e f e c ffe e
Pe FR e a e

FR 411-3. French Film. T e e fFe c c e a
f e e e e a a a e a
c a c b a e f a a
c e c e e c e a e e e c e e f
C e e f e c c a Me e Re
G a Va a Je e a C Ta E
Pe FR FR c c e e e f
a e f Fe c c e Mee Fl M Ta
E

FR 930-1 to 4. Independent Study in French: Undergraduate. I e e e f e a
a e B e c a a a e e e fac O f
e e e e Fe c e a a Ma b e
e e a e e e e f c e Pe C e f
c

FR 940-1 to 4. Independent Study in French: Undergraduate. I e e e f e a
a e B e c a a a e e e fac O f
e e e e Fe c e a a Ma b e
e e a e e e e f c e Pe C e f
c a e a e c a

FR 950-1 to 4. Independent Study in French: Graduate. I e e e f a a e e
b e c a a a e e e fac O f
e e e e Fe c e a a Ma b e
e e a e e e e f c e Pe C e f
c a e a e c a

GALLERY MANAGEMENT

G M 200-3. Introduction to Museum Studies and Gallery Management. I c e e e b a c
c e a e f e a a e
E e e e a f e e e e
c e a e c e e f c f c e c
e e a e e c a a e b

G M 403 1-3. Gallery Management – Internship
S e e e f e e e
e a a e a a e e a e e a e e e
a fe a a

G M 404-3. Gallery Management I. Se a a a c
c a a e e e c e a a f a
c a a e e c b c a a a f c e
a e b O a a a e e a c f a
a e a e f c e e a a b e e f c f
a c e a a e a e a a f
e e ff c a e b

G M 405-3. Gallery Management II. C a f
G M e a e e e f c e f
a e a a e e a e b a a

G M 406-3. Exhibit Design and Development.
I c e e e a c e f a e e e
c a e a a f e a a e
e b S e a e e e b
c a e b e a a T e e a a c
e a e

G M 407-3. Collections Management. Dea e c
c a c a a a a a e e C e e
c e a e e a a c c e
a c e a a a c c e b f c e c A
c e a e a a e c e a
c e e e e c a e e a e
a e e e a c e

G M 408-3. Musuem and Gallery Education.
C e e e c e a a e
e c a a e e e E a e f a
e c a e a e e e a c e e c a e b
a a a P c e a e f e a a
a b e c e e

G M 409-3. Museum Administration. C e e
f a a a a e e e
a c a f a b e a a e e a
a a e a e a e e e
a a a f a e e

G M 420-3. Special Topics in Museum and Gallery Management. I e e f e e c e c
M e S e a Ga e Ma a e e

G M 940-1 to 4. Independent Study in Gallery Management. I e e e a e a a e
e b e a a e e c

GEOGRAPHY AND ENVIRONMENTAL STUDIES

GES 100-4. Environmental Systems: Climate and Vegetation. A e e a c e e a a a
b e c a e c a a a
a a e b e I c e c e a f c a c

e e e a e e a c e e a a a
a e c e T c a a a a e
f e a a c e c e a b a e b
b a e a a A e f AS Na a Sc e c e
a e a e e e

GES 101-4. Environmental Systems: Landforms and Soils. A c e a c e e
e a e a c e e f a f a a
e e Ma e a e e e b
a f face fea e a a e f e a
a c e c e e b a e a b a
a a a e A e f AS Na a Sc e c e
a e a e e e

GES 105-4. Introduction to Map and Compass. A
b a c c a c a b e e
T c e e c e e a a
e e c e c a c f b a c a e
a a f e e e a T e e e e f e
c a b e e a b a c b e a
A e f AS Na a Sc e c e a e a e e e

GES 198-4. World Regional Geography. A e
f e a e e e e f a
c e e e b a c e T e
e e c a e a e e c a c a e c c
a e e a f c e a a e e a c e a e
a c f b a a c e a e c
e c e A e f AS S c a Sc e c e a
G b a A a e e e e e e

GES 199-4. Introduction to Human Geography. A
e a c c e b a e f a a
e a c a a a e E a a c e e
a e e f e a c c a
b e a b c a e c e e
c a e c e e e a a c a
a a e a f e f e A e f AS
S c a Sc e c e a G b a A a e e e e e e

GES 200-3. Geographic Regions of the World. A
c e e a c e a a e
a a c a c a a c e c A a e f e
a c e e c a a b a
e c c e e a e e a e e a
a e e e e a c e

GES 201-3. Economic Geography: Resources, Development, and the Future. I c c
e a f e c a f e c e e e f a a
e c e e c c a e c c a e e e
a e c e a a e f e U e f e e
f a a a a a b e a e c c a c
c a c e a f a c a a
e c e a c e b a c a e f c e a
a e C a e e

GES 210-3. Humans and Environments. A e e
f b a e e a e c c a e c a e
a a b e a c e a e a a e e e f e a
a a e e I a c a a e
e a a a a a e a a e c a
a c a b e e e c a e e
a e a a e c e

GES 298-1 to 6. Professional Experience I. De e
e e e c e a c a f e c c e e a
c c e a e e e e a

GES 305-4. Introduction to Cartography. A c
e c e a e f a a T e
e a b e e e f a f e e a c a
b c a a a c e c e a a e a f
a e T e c e e a e c e a f e c b e
e a c a e a c e e c e
a a a b e e c a a e

GES 320-4. Practical Meteorology. A c
e a e e e e a e e c a e e a
e a c a c e a a c c a
a c a I c e e a e e e e a a e
c e c a a e e a e e
e a e a a a f e c a e a e c a
c a a c e e e e e e f
e e c a a c e e a e f a c e
b e e a e a e e c a c e a c a

b e a A e f AS Na a Sc e ce a ea
e e e Mee ENSC

GES 321-4. Basic Weather Analysis and Forecasting. A e a e a ca f e e ca c e e a e e c e f e e a f e c a e a e Tec e c e a e e f b a c c e e e a f a e f e a e c a a f e c a e c e e c e e b e e a f e a e c a a f e c a c a Pe GES

GES 325-3. The Geography of Climate Change. S e e a e e e a e e c e f c a e c a e f a e a c a e e c e Tec e c a e e e a c a e a e a c a e f b a e e a c a e ffe e ca S e e a e c e c e a c c e a a c a e c e f f e c c ab e a f c a e c a e ffe e c a W e a a e e a bee a c e a e e e e a e f e e a e e e A e f AS Na a Sc e ce a e a e e

GES 340-3. Geopolitics. A e e e c a e a c e e c e f b a c c a e b f a e a c e e c e Ge c a e a c fac c a c e a a e e c a e a a e e c e a a e a e c a b e

GES 350-3. Nature and Society. T e e a be e e a e a c e e f e a f e a c T c e e e e a be e e a e a c e b e a c c a e e c e a a c e a e c e f e a c a e e P e GES GES c e f c

GES 360-3. Geography of American Folk and Ethnic Music. M c b A e c a a T c e a a e e e a c c e f A e c a f a e c c A a e f e a c c c e a e e a e e e f A e c a f a e c c b e c e

GES 366-3. Community Service: Theory and Practice. C b e e ac c a a c a c e e a a e e a a c e c e Pe S e a a c e f c

GES 375-4. Conservation Biology. T e a f c e a c a f b c a a e c a c e e e e b e U a e c e a c e e e f b c a e a e e a e Beca e c e a b e a c a a a c e c a e a e c c a e c a e a e a e c a Pe BIO BIO e c e e e C e f c e e Mee BIO a BIO

GES 380-3. Regional Geography of the Pikes Peak Area. A e a a e a c a a c a e e f f a e e G e a Pa a e e R c M a a a f a e c e C a S C e C e e a e e a b e e H Pa

GES 382-3. Mexico, Central America, and the Caribbean. S f c e a c e a a e a e c a e e f Me c e Ce a A e c a c e a e Ca bbea a

GES 385-3. Historical Geography of the United States. H c a e a a a e f f c a a e a c a e

GES 386-3. Geography of American's Southwest. E a e e c a a c a e e f e A e c a S e l c e a a a f a f e e a c a e e c c e e a e A e c a e e H a c e e e a e e a c a c a c a e

GES 390-3. Historical Geography of the British Isles. T a c e e c a e f e B a c a e f e c e e e a Pa c a e e W a e Y e e a e D c a We e l e a be e a e e a Mee HIST SEC

GES 398-4. Places and Faces: Geographic Issues in Film. T a a c e e a c e e c e a a a e c e e e c e e ba e a c e l e a e c a c a a ec c e a a e c e e f c a a e e c a a c a e a e ec c a a a a e Pe GES 8

GES 400-4. Statistical Analysis in Geography. T e a c a f a c a a e a a e e c e e e a c a a e a a a e a b a e f e a c e e a c be Mee GES

GES 401-4. Technology, Development and Economic Geography. T e a e c e a ec c e a E e c e e a e e a c a e a a e a c be e e a c e a e e a fec e a c e

GES 405-4. Introduction to GIS. A c Ge a c l f a S e GIS a a e e a c S e e ESRI f a e c e e a e e f e a c e c Aba c e a f ca a a c e e e e e c e Pe GES c c e Mee GES

GES 406-4. Introduction to Remote Sensing. T e ac a e e a f e e a a a e c e a a b a e a a a e a e T a e c e e c e c e e e f a e f a a a a e c e Mee ENSC a GES

GES 408-4. Advanced Geographic Information Systems (GIS). C e a c a f GIS f a a a a F c e ESRI f a e a c e e a e e a c e c Pe GES c e f c Mee GES 8

GES 409-4. Image Processing. A c e a a c e e f e c e a a e e e e a e A e e a f e e e c a e c e c be c e E a be a c e e a a e a a b c c e f ANDSAT a a N e a e e e c e e e Pe GES Mee ENSC a GES

GES 410-3. Global Positioning System with GIS. E e e e e f GPS e a c c a e e e c e GPS a e e e e a c be e e GIS a GPS e f ESRI a T be Pa e f a e Pe GES c c e GES efe e Mee GES

GES 411-4. Introduction to Field Techniques. A e ba e c e a e a e e e c e e b e a e f a a a e a a a T e e e c e c e e e e a e GPS c a a f e a e e a a c a e e c a a a c a e c c a e a E e e e e e

GES 416-1 to 4. Teaching Geography. P a c c a a b e c a a a e e e a c f e a f e a e e a a e a e c c c e e a e c c a e a

GES 417-3. Writing Place. P e e e e e a c T e c a a e e e e ab e e e f a c e

GES 422-3. Synoptic Climatology. T e c a c e e e e e e e a a a f e a e e Se e c e c c e e a be e e e a e c a face e a e e e a c e a a f a e a e c e f e e a a a Pe GES Mee GES

GES 426-4. Biogeography. A e a a f e b f f e e Ea face T e a be e e e e a fac a a a a a b be e c e a e e C a e b e a be e a e Re e e Pe GES c e f c Mee GES

GES 427-4. Advanced Biogeography. A e c e e c a e e b f a a e a e e a fac T c a c b e e c e e a a a c e e a a e T e e a c a a e a f be c a e e a c e Pe GES GES c c e Mee GES

GES 428-4. Plant Communities of the Western United States. A e a a f a a e b a e e c U e S a e e f e e e e a T e b f a a e c e be e a e a c e a c e a fac c a c a e a a f Pe GES GES Mee GES 8

GES 429-4. Plant Communities of Colorado. A e a a f a a e b a e C a Ma a c e be e a e e c e f e e a fac c a c a e a a f Re e e Pe GES c e f c Mee BIO a GES

GES 431-4. Principles of Geomorphology. S e a c f e a e a a a a a e c e e a e a f e f e e c e Pe GES GEO c e f c Fe e c e e Mee GES GEO GEO

GES 432-3. Mountain Environmental Systems. Fe c e e a f a f c e b e a e a a e e e a c e e e a c a c a a a c I c e F Ra e a c a e a a c Pe GES c e f c Mee GES

GES 434-4. Soils. C e e a e a b f a e a f e b a c f e e a e e e l e e e e a c e e c a e e a c b f e Pe GES GEO c c e Mee GES

GES 441-3. Resource Management and Conservation. I e c a a a e e f a a e c e Na e c a c e b a b e a c a e a e f e fe a e c e a a e c e E a e e e c e e U e Sa e b e b a b e a b e c e Mee GES

GES 445-3. Analysis of Environmental Systems. A a a f e a fac e e f e e a a c a e e E a be a a c a c e e a c a e a a f e e a e a a c a e c e e a a c be Mee GES

GES 446-1 to 6. Field Studies in Geography. Fe e a f c e a a e c a e c f e a c a e a e e c e a e a T c a c e a f e a ea Fe e e e e GES

GES 448-3. Environmental Problems of Colorado. A c a e a f e e e a be f e Sa e f C a a e a a a a a a e a a a e e a a a P a a e a e a e a e a f e e a e e e a be be e e e Mee GES 8

GES 450-3. Water Resources and Water Problems. A e c e e e a a e a e e f

c a c aa face ae a ae
Te e fae c ca e aae e a
be a cae e a c a b
a a a a e a
e e e Mee GES

GES 451-3. Applied Hydrology. E a f e
c e f a e a ca e
e a e a Pe GES c e f
c Mee GES

GES 455-3. Disasters and Society. Ca e e f
a c e e a e be c e
a ca a a c c a a ba fa e
l e c e e c e ec ca a a e
e fe e a e ce a ec
a a e ac e a e c a e a e ca
a e a a a e e Mee GES

GES 456-3. Cultural and Political Ecology. A e e f
ca a c e a e e c e e
e e fe a T c c e e e
a a a e a f ec a e a
a abe e e e ac a a e f e a
ca c e Pe GES GES c e f
c Mee GES

GES 460-3. The Cultural Landscape. S e
e a e e e e A e ca c a a ca e a
c a e e a a e fe e a e
f a e We e a e c e a e e
a f ca e a a e
a e c e c e e Mee GES

GES 461-3. Urban Geography. C e a e e
c ba ca ba a e
ba f c a ba ca e We a a e
c e a e a e e c e a c e
E a c e e U e Sa e Mee
GES

GES 470-1 to 4. Geographic Issues. Ge a c
e e c e e f e e c e a e a c
a e c c a a a a
a ca e e c e c e be
e e e T c a f e a e a

GES 473-3. Geography of Population. Na a a
ca a e f a b a a
f a a e f c e e a c
a a a a Mee GES

GES 475-3. Recreation, Tourism, and the Environment. A e a a b a
e e a c a ac f e c e a a
c e a a Rec e a a a e
c a a c a e e c c a e ff a
f e e a e c e Mee GES

GES 476-3. Women's Space, Women's Place: Women's Role in Changing the Face of the Earth. A e e a a f a a a e c f c a
a e a e a f a f e e e c e
U e a e f c e f e a e e e c e
e a a a b a e e a c c e ff
e e e e a b e e a
e e a e e c e e e e e e
a e e a c b e e c a e a c f a a
a a T e e a c a a b
f ffe e f e a be f c e e a e
a e e Mee WMST

GES 477-3. Development of Geographic Thought. T e
c e f c c a e f e
e e e f e a c a e
B a a e e e a e b e a a e
a c a e a a c e e e a c
c a e f e e a c
P e GES c e f c Mee
GES

GES 491-3. The World of Wines and Vines. F c
e c a a c a e a f e a e
c e C e a e c e e f
e a c a e a e a e c f c a
e a e c a e a f c e e
c e a c e a c a e

a e a a e a a e a e a a f
e c c e c a e B e a a e a e N a
Va e a Ge a e e P e M b e a
fa e

GES 494-4. Seminar: Practicum in Image Processing. P e GES GES a c e f c
e e

GES 497-3. Honors in Geography. I e e e
e e a c a e f e a a a e
a a e a c a c e f a c e e
e a a a e e a e f e a
a e e a e F e e
a a e e f e a Ma b e
a e e f GES

GES 498-1 to 12. Professional Experience II. De e
e e e c e a c a f e c c e e a
c c e a e e e e a

GES 499-3. Senior Thesis. A e e e e e a c
e c T e e e a f a e e a c a e
a a c e a e e e c a
a e a T e e e e c f a
f e e b e f e e a e a a e a e c
e b e a a a a e a e

GES 500-4. Quantitative Methods. Re a c e e
a a e e e a A a c e a a a a
e c e f e e a c a e e a
e e a c Mee GES

GES 501-3. Seminar: Geographic Research. A a a
f e a c c a e e e a
S e e e a e e a c c e e a e
e e f e e a e a e a e e a c a
P e BA BS

GES 505-4. Introduction to GIS for Graduate Students. I f a S e GIS a a e e a c S e
e ESRI f a e c e e a e e f e
a c e c a e a c a f GIS
e e e a c a e a P e GES c e f
c Mee GES

GES 506-4. Seminar: Advanced Remote Sensing. I e e a a a c a a e
f a e a a S e c c e e a c e
b e c e S e a c c e e a
e e c e a a e a e a e e e e c
Mee GES a ENSC

GES 508-4. Advanced GIS for Graduate Students. C e a c a f GIS f a a a a
S e e a ESRI f a e a c e e a
e e a c e c e e f e e P e GES
GES c c e Mee GES 8

GES 509-4. Image Processing. A c
a a c e a e c e c e e b e
e e e c l a e e a e a c e
e a c a c a b e e a e P e GES
GES Mee GES a ENSC

GES 510-3. Global Positioning System with GIS. E e e e f GPS e a c a e e e c e
GPS a e e e e a c b e e e GIS
a GPS e f ESRI a T b e Pa e
f a e P e GES c c e GES
e f e e Mee GES

GES 515-2 to 4. Graduate Teaching Geography. P a c c a a b e c a a a e e
e e a c f e a f e a e e a
a e a e c c c e
e e a e c c a e a
S e c e fac e e e
c a a e a a e a c e
e a e a O e a a e e

GES 516-4. Workshop in Geographic Education. A
c e e f e a c e a
I c e c f a e a a c c e
a e e a e c a S e
e e e a c a e a a e a f c a
e c c P e C e f c

GES 517-2 to 4. Seminar: Research Methods. I e e
a f f a a a e e a
f a a f e a c b e Ca e e
a e e e e c e Mee GES

GES 522-3. Synoptic Climatology. T e ca
c e e e e e e a a a a
f e a e e Se e c e c c e e a
b e e e a e c a face
e a e e e a c e a a f a a e
a e c e f e e a a a Pe GES
Mee GES

GES 526-4. Biogeography. A e a a f e
b f f e e Ea face T e e a
b e e e e a fac a a a a a
b b e e c e a e e C a e
b e a b e e a e Re e
e Pe GES c e f c Mee
GES

GES 527-4. Advanced Biogeography A ec e e
ca e e b f a a
e a e e a fac T ca c b e
e c e e a a a c e e
a a e Pe GES GES c
c e Mee GES

GES 528-4. Plant Communities of the Western United States. A e a a f a a e b a e e
c U e Sa e f e e e
e a Te b f a a e c e
b e e a e a c e a c
e e a fac c a c a e a a f
Pe GES GES Mee GES 8

GES 529-4. Plant Communities of Colorado. A
e a a f a a e b a e C a Ma
a c e b e e a e e c e f
e e a fac c a c a e a a f
Re e e Pe GES GES c
c e Mee GES a BIO

GES 531-4. Topics in Geomorphology. C e e a c
a f c e e F c e e e U e
Sa e Fe e c e e Pe GEO
GES c c e Mee GES
GEO GEO

GES 532-3. Mountain Environmental Systems Seminar. Sa e a GES b c e a a
e e a c Fe a Pe GES
c e f c Mee GES

GES 534-4. Seminar: Soils. I e f
e c e e a a ca ca e
f ba P b e a e a e f
Pe GES GEO c c e
C e e c e e Mee GES

GES 539-3. Earth Systems Science. T c e f
e a c e a c e e e
e e a a e ca f a c a e
a c a e a e a e T c e e e
a f a e e e f e GES Ma e f
A e Ge a De e e Ma e f Sc e ce
Mee CURR

GES 541-3. Seminar in Resource Management and Conservation. A e a fe e a
b e e a a a a a
e a e e e a a a a a Pe
C e f c Mee GES

GES 545-3. Seminar: Analysis of Environmental Systems. P b e a cae e e e f
e e a a c e Ca e e a e a e
Mee GES

GES 548-3. Environmental Problems of Colorado. Se c c a a e c e e b e C a
l e a a f e a c e f a a
e c e a a e c a c e e Mee
GES 8

GES 550-3. Topics in Water Resource Management. E e e c e f a e e c e a a e e e U e

S a e ec f ef ea be
ec e C caaa f e a e
e e U e S a e Mee GES

GES 551-3. Applied Hydrology. E a f e
c e f a e a ca e
e a e a Mee GES

GES 555-3. Disasters and Society. T e ac
fe e e e caee a ce
E a aaa e e e e a a
f e c eab a a a e Mee GES

GES 556-3. Cultural and Political Ecology. A e e f
caa c e a e e ce e
e e f e a T c c e e e
a a a e a f ec a e a
a abe e e e ac a a e f e a
ca c e Pe GES GES c e f
c Mee GES

GES 560-3. The Cultural Landscape S e ea
e e e A e ca c a a cae a c a
e e a a e f e e a e f
a e Y eec e ab c e a ce
f ca e a a e a c e
c e c e e Mee GES

GES 561-3. Urban Geography. C e a e e
c ba ca ba a e
ba f c a ba ca e We a a e
c e a e a e ec e a ce
E a c e eU e S a e Mee
GES

GES 573-3. Seminar: Population Geography. T e e
a ca ec f a caace c c
fe a a b a c
B e e ca a e cac e a a e
c e Mee GES

GES 575-3. Seminar: Recreation Geography. A
e a a b a e e a
c f ec e a E a
ec e a ba e T e ca f
ec e a a e e ce a a e a a e
ec be c e Mee GES

GES 577-3. History and Nature of Geography. A
f e a ca e a f G e e ca ca eff
e ce Pe C e f c
Mee GES

GES 602-4. Data Processing in Earth Science.
A a ce a a c e a a e e
a Ge a c l f a S e S e be
e bef e e e a ec e a
c e Pe GES GES GES

GES 700-1 to 6. Master's Thesis.

GES 940-1 to 4. Independent Study in Geography.
I e e e f e a a e B eca
a a e e fac O f e e
e e a e a a

GES 950-1 to 4. Independent Study in Geography: Graduate. I e e e f a a e e B
ec a a a e e fac Pe C e f
c

GES 960-1 to 4. Independent Study in Geography: Graduate. I e e e f a a e e B
ec a a a e e fac Pe C e f
c

GES 999-0. Candidate for Degree. GEOL 101-4. Physical Geology. S f face fea e f e
ea a e e e f e c a a e
ec f e e a GEO ab be a e
c c e A e f AS Na a Sce ce a e a
e e e

GEOLOGY

GEOL 102-4. Historical Geology. De e e f
e ce ce f e fea a
e e e f fef e c e
T ee ec e a e e ab a e ee
A e f AS Na a Sce ce a e a e e e
Pe GEO GES c c e e e

GEOL 153-4. Geological Development of Colorado and the West. T ee ec e a e e ab a
e ee A e f e e e e e
f e e fC a l c e a a f e
e f fe a a fc e e e e
f e e e fec c e ce c ace
a a a c ca a a a c a
a e T a c e f a e c e a e a a
f f e a e a GEO A e
f AS Na a Sce ce a e a e e e

GEOL 317-3. Geology and Our National Parks.
P e a e e a a a e ca f e
e ca ec f a a a T e e
be e f a e a bac e e ca
ce e c a e e e e e ec ac a
e ce e f e a a a Beca e
e a a c ca fa a a e a e e
ec e e e e e a e a bac
e e a ce ce Fe a e c e a a f e
c ec e A e f AS Na a Sce ce a e a
e e e

GEOL 352-3. Oceanography. Ocea a e ba
a e a e c c a a e c a e e a
fe e b e e a e ce Ge c
a ec f e e a b e a a ce

GEOL 370-4. Environmental Geology. I e a c f
a ce e a e ce a e c
ce e l e a f e c a a e e e
e a be e a e e ce e e e
E a a fc e a f ba a a a
a e a a e cec e a A e f
AS Na a Sce ce a e a e e e Pe GEO
GES Fe e e

GEOL 403-4. Introduction to Hydrology and Ground Water. Occ e ce e e a e e f
b face a e c a e e
a Pe GEO GES c c e
e e MATH

GEOL 411-3. Geologic Field Methods. Me f
e c a c B c a a a e
abe e a C e GEO A a
e e e

GEOL 436-4. Glacial and Periglacial Geology.
I c ac a e aca e a
e e ce a c a eb a
ea e e a acac f e N
A e ca A fc c a e e ca
c a c ce e Pe GEO GES Mee
GEO

GEOL 463-4. Principles of Geomorphology. S e a c
f e a e a a a a
a e ce e a e a f e e ef
Fe a e e Pe GEO GES
c e f c Mee GEO GES
a GES

GEOL 466-0.5 to 4. Field Study in Geology. A e
a a e a f e ca e c e e c ca cc
e e e A e f AS
Na a Sce ce a e a e e e Mee GEO

GEOL 491-4. Engineering Geology. I e e e a e
e e a e e a ea a e c
f e e e e a c c be a c
a e a a a a a e a a e a c a
a e e a ca a e e e
a b c c Ba c c e c
a e a c a e ec e e Mee
GEO

GEOL 503-4. Introduction to Ground Water. Sa e a
GEO a a e e

GEOL 536-4. Glacial and Periglacial Geology. Sa e
a GEO a a e e Pe GEO
GES GEO efe e Mee GEO

GEOL 563-4. Principles of Geomorphology.
S e a c f e a e a a a
a a e ce e a e a f e
e ef Fe a e e Pe GEO
GES c e f c Mee
GEO GES a GES

GEOL 566-0.5 to 4. Field Study in Geology. A e
a a e a f e ca e c e e c ca
cc e e e Mee
GEO

GEOL 591-4. Engineering Geology. I e e e a e
e e a e e a ea a e c
f e e e e a c c be a c
a e a a a a a e a a e a c a
a e e a ca a e e e
a b c c Ba c c e c
a e a c a e ec e e W e e
a a e Mee GEO

GEOL 700-1 to 6. Masters Thesis.

GEOL 940-1 to 4. Independent Study in Geology: Undergraduate. I e e e f e a a e
B e ca a a e e fac O f e
e e e e a a Pe C e f
e c

GEOL 960-1 to 4. Independent Study in Geology: Graduate. I e e e f a a e e B
e ca a a e e fac Pe C e f
c

GEOL 999-0. Candidate for Degree.

GERMAN

GER 101-4. Beginning German I. E e a f Ge a
a a a e e a a ea
a a a

GER 102-4. Beginning German II. E e a f Ge a
c e A a a a a ac ce
c ea e a a ea a Pe GER
e a e

GER 211-4. Intermediate German I. Ge a a e
e e a e e e c ce a c e a
c e a c a ea ea a e e Pe
GER e a e

GER 212-3. Intermediate German II. A e e a e
Ge a c e c e a a a ea
c a e a c e a a e a
e a e e c Pe GER e a e

GER 293-3. Business German. Ge a f b e
e e e c e Ge a b e c e e c e
e ea a a a ea ea f
b e Ge a Pe GER e a e

GER 300-3. Advanced German Grammar. A c e
e e e e e e e f c a a ca
f M e Ge a Pe GER e a e

GER 301-3. German Conversation and Composition I. P a c ce c e a e e c e e c
ca Pe GER

GER 302-3. German Conversation and Composition II. P a c ce c e a e e c e e c
ca Pe GER e a e

GER 313-3. 18th Century German Literature. A e
f Ge a a a e e a e f 8
Rea a a a f e a e f e a e f e
E e e a f Ca c c c a
a e b e Ge e a Sc e Pe GER
GER e a e

GER 314-3. 16th and 17th Century German Literature. A e f Ge a a ae ea ef Rea a aa f ea e f e Re a ce Ref a a Ba e c c a a Ma e Ha Sac G a V G e a e Pe GER GER e ae

GER 316-3. 20th Century German/Austrian Literature. A e f Ge a a ae ea ef e e e ec ec e Rea a aa f ffe e e a e f e fe a e c a c a H Sc e T a Ma a e Bec B Bac a D e a M e a W f Pe GER GER e ae c

GER 317-3. 19th Century German/Austrian Literature. A e f Ge a a ae ea ef 8 8 S ec ec e Rea a aa f ea e f ae R a c Rea Na a c c a a Ge e e E c e ff S fe B c e ee Ha a Pe GER GER e ae

GER 318-3. German/Austrian Civilization and Culture From 1700-1918. ec e ea a c a e E e e f Ge a e e S f e e e f Ge a a A a c ea f 8 e a ea e a a c A e f AS G ba A a e e e e e Mee F CS 8

GER 319-3. 20th Century German and Austrian Civilization and Culture. ec e ea a c a e E e e f Ge a e e S f e e e f Ge a a A a c ea f e e e e a ea e e a a A e f AS G ba A a e e e e e Mee F CS

GER 323-1. Applied Conversation. C e a a ea a ce e e c e a c Ge a c e Pe GER e ae

GER 339-1 to 3. Internship in Applied German. T e f e a a e e a e ffe a a ce Ge a a a e e e a e e e f Ge a e c a c ca a e ce ec Pe e e Ge a c e a e a e a e

GER 345-3. German Film. Sc ee ec e c e e f Ge a e e Ge a ac a c e f be e e e fea c ec a a V Se be Refe a Sa a T ee Fa b e Sc ff We e A a T e Pe GER e ae f a e Ge a c e Mee F CS a Fl M

GER 350-3. Special Topics in German/Austrian Literature. Va c f c e a ce ea a c c a Ma be e eae ce f ce f c ffe e Pe GER GER e ae Mee F CS

GER 385-3. Austrian and Central European Film. Sc ee ec e a c a e c e c e e e f Ge a e e f Ge a T a e f A a c e a ac a c e f e be e e e a ea H a a a C ec a a D ec c a Fec a F Ha Ma c a C R a Ha e e a e fea e Mee Fl M 8 a F CS 8

GER 920-1 to 4. Independent Study. I e e e f e a a e B ecaa a e e e fac O f e e e Ge a e a a Ma be e eae ee e f ce Pe C e f c

GER 930-1 to 4. Independent Study. I e e e f e a a e B ecaa a e e e fac O f e e e Ge a e a a Ma be e eae ee e f ce Pe C e f c

GER 940-1 to 4. Independent Study. I e e e f e a a e b ecaa a e e e fac O f e e e Ge a e a a Ma be e eae ee e f ce Pe C e f c a e a e ca

GER 950-1 to 4. Independent Study. I e e e f a a e e b ecaa a e e e fac O f e e e Ge a e a a Ma be e eae ee e f ce Pe C e f c a e a e ca

GERONTOLOGY

GRNT 300-3. Introduction to Gerontology. A c e e e c e e e ce fa c a e e f eb ca c ca a caa f a a e a e e a c f a a a ce A e f AS S ca Sc e ce a e a e e e

GRNT 462-3. Sociology of Aging. E a a f e a ce A e ca ce F c e e e f a e a e ce ce a e a ea Mee SOC

GRNT 463-3. Psychology of Aging. A e e f e c c e c c a e a ce a e e c a c e fa e a a a e fe e a e a e c ef e Pe PSY Mee PSY

GRNT 498-1 to 6. Professional Field Experience in Gerontology. De e ea e e e ce a ca f ec c e e a c ce a e e Ge e a e e a Pa Fa a Pe GRNT a c e f c S f e a ce e e e e

GRNT 940-1 to 6. Independent Study in Gerontology: Undergraduate. H a ce be a a e Pe C e f c e e

GREEK

GRK 101-4. Introduction to Ancient Greek. A c ca ca A c Gee ba e ea a e a e e fca ca Gee e a e Ac f ef a e a f a a cab a a a bee a e a a ea e a Gee a c e

GRK 102-4. Intermediate Classical Greek. C e e e c e e a a ca ca a cab a ae GR S e ea e ec f Gee ea e f H e e Me e a e Pe GR

GRNT 204-3. Biomedical Aspects of Aging. A c e e e f e a a a ca a ec f ea ce a be T e c e ea ce a a e f c e a ca e a ca e e a e a l a b c ca fac a e e T e c e a e a e e c ce f e e a a e a Mee HSCI 8

HISTORY

HIST 101-3. The Ancient World. A e f a ca ec c e a ca e e f e a ce f e be fc a e Nea Ea e e f e R a e e e We S e ea a e ec f a ce

HIST 102-3. Medieval World. A e f a ca ec c e a ca e e e E ef e e f e R a E e T a c e ab efe a a f e e fl a a e a f B a S e ea a e ec f a ce GT HI

HIST 103-3. The Rise of Modern Europe, 1500-1815. A e f a ca ec c ca a c a e e e f e Ref a e e a f e Fe c e S e ea a e ec f a ce A e f AS H a e a ea e e e GT HI

HIST 104-3. Modern Europe, 1815-Present. A e f a ca ec c ca a c a e e e f efa f Na e a S e ea a e ec f a ce GT HI

HIST 111-3. Asian History: Southeast Asia. A e f S ea A a ce c e ca ec f ea S ea A a c a e e e A e f AS H a e a e a a G ba A a e e e e e

HIST 112-3. Asian History: The Indian Subcontinent. S e f S A a ce c e ca ec f eb fl a c a e e e A e f AS H a e a e a a G ba A a e e e e e

HIST 113-3. Asian History: China. T e e fC e e ce ec c e a ca e f eb fC e e c a e e e A e f AS H a e a e a a G ba A a e e e e e

HIST 114-3. Asian History: Japan. A e f Ja a e e ce c e ca ec f eb f Ja a e e c a e e e A e f AS H a e a e a a G ba A a e e e e e

HIST 121-3. History of the Middle East. A e c ec e e f e M e Ea S e ca a e be e eb fl a e O a e e E ea e a eb fl a e e S Da Wa e Ca Da acc e a e f eba e l a e e G f Wa a e f e a ce

HIST 140-3. Latin America to 1810. S e f e ca ca a ec c e e e f a A e ca f e C ba be 8 A e f AS H a e a e a a G ba A a e e e e e

HIST 141-3. Latin America Since 1810. S e f e ca ca a ec c e e e f a A e ca ce 8 A e f AS H a e a e a a G ba A a e e e e e

HIST 151-3. US: Birth of a Nation, 1607-1789. S e f e e e e f e US f ec a e e a ca f e C e a ca e e e a e f e A e ca Re GT HI

HIST 152-3. US: Expansion and Division, 1789-1877. S e f e a e e a e e a f e Jeffe a a Jac a e a e a ec a e e e f e a e a a e ca e c a ca fac c b a c a GT HI

HIST 153-3. US: Emergence of Modern America, 1865-1920. S e f e ec c ca a ca e e e f a A e caf e ec c W Wa l A e f AS H a e a e a e e e GT HI

HIST 154-3. US: Recent America, 1918-Present. S e f A e ca ca ca ec ca c a e e e US a bee a e Te fc e a ce e a ee e e ce fa c a A e ca GT HI

HIST 300-1 to 3. Special Topics. T e e c e a e a a a e e ba T e bec a e c a e f ea ea a c e a a b a e a b e c

HIST 304-3. Sex, Marriage, Death in Pre-Industrial Europe. E a e e fe c c e f E ea e e a e bef e c a a f e e a ac ce f c e a c ea a a e a ea

HIST 310-3. Great Thinkers of Europe. A e a a f e a c e f e c e T e

c e e f ef Fe Webe e
V aW f B be B ec Sa e a Be

HIST 311-3. Great Thinkers of Europe: The Nineteenth Century. F a c e a e
a e e f e e ce E ea
c e ac a e e
f e e ca a e a
Rea be e ec e f a c a
a S Wa e Sc Ge e Sa e B e G
Ma a E e J S a M a lb e

HIST 323-3. Fascism and the Holocaust. A a a
f Na Ge a c f e c e a a e Je
e c e f E ea fa c f e
a

HIST 325-3. Germans and the Holocaust. A a a
f Ge a a e H ca f e e a e ec
e e e e e f Ge a a Se e
e f Ge a Je e c e a e e a e b
e T Rec b e e eff fa e e
c e a

HIST 335-3. Germany, 1763 to 1866. A e a a
f a e e e f Ge a c c e
ec c fe a c e f e e f e Se e
Yea Wa e A P a Wa S ec a a e
a a a e e e e c e f a a e a e

HIST 336-3. Germany since 1866. A e a a f
a e e e f Ge a c c e ec
c fe a c e f e e e A P a
Wa a l c f e Ge a e a e

HIST 337-3. Hitler and German National Socialism. A e a a f e Na e a e e f e
ca a c e a a e e ca
ca ce e e a a e c f e c e f
c e a e b e S e e f c
ca a ac

HIST 338-3. Germany Since 1945. A a a f
Ge a c e c c e a c e c e
e e f W Wa II

HIST 342-3. Medieval England. A e f e e a
f a f e E a f e c f e
A Sa c Te f c be a
e c c a a e e a e e
a a e f a c e

HIST 344-3. Tudor-Stuart England. T a c e e c e a
a a e a c e f e T a e e c e
a a e e e e f e
c e Te e a be ca c a a
e c c c e a e e a a e f a
c e

HIST 346-3. Early Modern England. S e f e a
M e E f 88 8 a
e a c a a e c c e e e a
e a c a c e

HIST 349-3. History of Ireland. T a c e e e
l c e e e c e c
l e a e a G e a B a b e a
S e c a e a be a c e a e a
b e c e a e a e e a c a
a c c e l c e a e e a
e a c e l c e a face
b e e a e e f a f
e a e e e e e c e

HIST 350-3. Chicano History to 1910. A a a c
e c f C a a b T c e
e a e e e e a e a e f b
e f e b e a e e e f
S a e a e e f e A e c a S e
A e f AS C a D e e e e e Mee
EST

HIST 351-3. Chicano History Since 1910. A b a
e c f C a c e T c e e
a e e e e a e a e f b e f
e b e a e e e f S a e a
e e f e A e c a S e A e f AS
C a D e e e e

HIST 352-3. History of Latinos in the US. C e
c e e e f US a c e a a
A e c a a e US f e 8 e
e e A e f AS C a D e e e
e Mee EST

HIST 355-3. Religion and American Culture, 1500 to 2000. H c a a a a e c a
e f e e c e f A e c a f e
C b a e a e e e

HIST 358-3. Immigrant Histories. T e f
a a f a A e c a Af c a e
M e Ea a E e a f 8 e e e be
e a e E a be a c e US a
a e e e e f e c b a e c e a
c e c US c A e f AS C a
D e e e e Mee EST 8

HIST 359-3. Latin American History Through Film. E a f a e e e f a
A e c a c a c e c a c a c a e
e a a a e e f a
e A e f AS G b a A a e e e e e

HIST 360-3. The 1960s. E a e e c a c a
a c a c a e a e b e e a f e
S e c a a e b e e e C R
M e e e e c a e c f e V e a Wa
a c a e e a a c e a e a e

HIST 365-3. Economic History of the United States. A e c a e c c a a a a
e e e e f c a e e e e e
P e ECON e f c Mee
ECON

HIST 371-3. Good Wives and Nasty Wenches: American Women's History, 1607-1877. A e f
e f A e c a e f e C a e a
e C Wa c c e a e c e
l c e e e c a e c c
e e a fa a e f A e c a e Mee
WMST

HIST 372-3. "From Slavery to Freedom": Slavery and the African-American Experience in Colonial and Antebellum America. l c e e e a
c a c a a c a e e e e
f Af c a A e c a f Rec c
Mee EST

HIST 373-3. Vision and History in Native-American and African-American Narratives. E a e a b a
a b a N A e c a a c e e e c
e a e a f A e c a l a a Af c a A e c a
e e c c a Mee EST

HIST 374-3. African-American Social and Political Thought, 1790-1980. S e e c a b a f
c c a N A e c a a c
Af c a A e c a c e Mee EST

HIST 386-3. Popular Culture in 20th Century America. H A e c a e e a a e e a e e e
T e a e e c e b a a c
e O e e c e f e c e c e f c e
c a e e f e a a e e e a
e a TV e a c f a c
a e a f e e A e c a c a

HIST 388-3. The History of American Education. A
e a a f e c a e e e a a c e
e f A e c a e c a T e b a c f
e e a c a e e f a c e c a
c e e a e a e f e c a a
b e e e a c

HIST 389-3. History of Colonial India. A f
l a a e a e c a f S A a T c
f e c a a e a e B e a e b e
a a B c a e l a e f
f e e a e e e c e

HIST 394-3. Theory and Methods in History. S e a
c a e e a e a e e a c
a e S e a e
a Se T e Se a HIST

HIST 398-3. The Vietnam War Through Film. A
e f e a S e a A a e e e
f H Ma e c e F a c e a
V e a e a A e c a e e e a
A a e e a a e H e e a
b a c e a e f a f V e a

HIST 399-3. European Film – European History. T e f E e a c c a
e e e E e a c e c a c e
T c c e e a a c a c e a
b c a a a a e c e
e e e e f e c e e
E a a b e e e Mee Fl M

HIST 411-3. Early Medieval Europe. Sc e f c e
c e c e T e e c e e
be C a a f e R a E e e a
f a f e We e E e E e a fe a
a e a f e Ea e E e

HIST 412-3. The Twelfth Century Renaissance. Sc e
f e c e c e e c e
T e e c e e b e c a c a e a
e c c e e e a a e Me e a E e
a e c a

HIST 421-3. History of Christianity: Primitive Church to circa 300.

A e a f e C a e
a e J a c a He e c c e e e e
c a a e a c f e e a e f e
Ne Te a e a a a a f e c a Je

HIST 422-3. History of Christianity: circa 300 to circa 1500. A f e C a c c e We f
a c c e a c e a a e a e e c e
e e e f b e a a e Ref a T e f c
e e c a e c a a a a e e c a
e e e

HIST 423-3. Renaissance/Late Middle Ages. A e
f e a c a e c a c a e e
e We e E e f e e a
e e a c e l c e b e e e a f
E e a b f S a a P a

HIST 424-3. The Reformation and Counter-Reformation. A e f E e f e e a
c e e c e f Ma
e e T Yea Wa E a b e
e e e e a e e a e a c
e c c a c e

HIST 426-3. Europe in the Age of Enlightenment. A
e a a f e 8 c e e c a e a
e e e e a a c e

HIST 429-3. Europe and the World: 1492-1750.
E e e a a f e
f c f a c a c b e E e a c e
e c f e b e f e e A e f l e a

HIST 449-3. Europe Between the World Wars. A
a a f e a e a e e e f
E e a c c e e c c a c e
b e e e a

HIST 451-3. The American Revolution: The Forging of the Union, 1763-1789. A c e e e e f e
c a c a e c c a e e c a a f a
A e c a e R e a e a T e
f c b e e c a e f e a e a e f e
c e e c e f e e e c e a e a c a f
e c

HIST 453-3. Civil War and Reconstruction, 1850-1877.
l e e f e c a e a c e e c e f e
C Wa a e e e e c c C e
f c e e e 8 8

HIST 454-3. American Religious Cultures 1945-2000.
l e e e e a c e a f c a e f
e c e A e c a e f C Wa P e a
Ne A e B

HIST 458-3. The American West. A c a f e f e e a e e e e e e e be e M be e S a e a a c ee f e ce E a ea ca f We e ee e f a a e e a ce e e a

HIST 469-3. Colorado History. A f C a f e c l a cea ec T c c ee c e e a a c e e a e e e e a ee fe l a ec ca ca e e e e a a e e a f e e e a e ece e

HIST 471-3. Asian-American History. C e ace e ca ca ec c a c a a f A a A e ca f e e a e e e f e ce e e e Mee EST

HIST 472-3. American Policy in the Pacific. T ace e ca f US a c ca a ca e a A a T c c e e e a C a a e e e f Ja a a a e c f A e ca e a Ea a S e a A a Ve US f e c a e e a c e a a e e a e c c e e A e ca a c a ee a a e A a e

HIST 473-3. Early China. A f C a f a c a e ca e l e a A e e M e a e a a c e a e Q S e c a a e f c e e a c e a e c f a a e a e a ca ca a ec c e e e

HIST 474-3. Modern China. A e a a f e f a f e l e a a c e a e e f e c a e a f e a c e c e b c a a c l a c c e e e e a e a e c e a f e a a a C a e WWII A a a e e a f a f M a e

HIST 475-3. Modern Japan. I c e e e e e b e a f Ja a c a c e We e Me Re a a e c e a f a e a e e a f e e e a e e f a a W Wa ll T e c e c c e e a c c a a a e c e f Ja a

HIST 476-3. Shoguns of Japan. C e b e e e a b e f e a f e a e e 8 a e e e a f e a e 8 8 I c e a e a a f e c a c a e c c a c a a e c f e a c a a e c f e a c e S a c e e e a f e S Ja a

HIST 477-3. Vietnam Wars. A f c e c e e a US e e G e e a e e e e e c e a e a a c c f e a c a e a T c e a e e e e f A e c a f e c e C Wa

HIST 478-3. History of Modern Southeast Asia. T e c e f M a a l e a e P e S a e T a a a C a b a a V e a a c e e S e c e c a e c c a e a e e e e c e a e a e b e f c a e e e c e f a e a f e

HIST 479-3. The American Military Experience. A b e c e e a a f e a f e U e S a e f e c a e e e e e S c a b a e a c a a a e c a e f a a e b e a a e e c a e a e f f e c t i v e e a f A e c a a a a a a b a c e

HIST 485-3. War and Society: 20th Century US. E a a f e c a e c c a a c a a c f a A e c a c e e c e E a W Wa l W Wa ll e e a Wa a e V e a Wa

HIST 487-3. History of the British Empire. A e a a c e e f e B E e f A e c a c e a e A a Af c a a e We l e e a e c e

HIST 489-3. Environmental History: The West and the World. A e a e a b a e e a a c a e a b e e e e a e f e A e c a We

HIST 490-3. Creators of Mathematics: A Historical View. A c e f a e a c a c e a Tace e e a f e e a e a e a c a f a e E e b a c e f e e a De e f a a e c a a a b a a b e a a b e e e c e f c e c e a a a Pe ID Mee ID a ID

HIST 499-3. Senior Thesis Seminar: Approaches to the Study of History. A e e c e f e e e e T e f c e e a c e a a a f e a a a f e e c e a U e e e c f a f a c e b e e a c e b e f e e a e a e a a a e c e f e e a c e Se e Pe J Se a

HIST 600-3. Historiography. I c e f e a f Re e f a a a e e

HIST 611-3. Readings in Medieval European History. T a a e c e a a e e a e c a e a e a c a e e a e a M e a f c c AD Pe Ga a e a

HIST 615-3. Readings in the Renaissance and Late Medieval Europe. T a a e c e a a e e a e c a e a e a c a e a e Re a a c e a a e Me e a E e f c c AD Pe Ga a e a

HIST 622-3. Readings in the Reformation and Counter Reformation. T a a e c e a a e e a e c a e a e a c a e a e e a f e Ref a a e C e Ref a f c c 8 AD Pe Ga a e a

HIST 625-3. Readings in the Old Regime, 1648-1789. Ga a e e e e a a e f E e a Pe A a e f c

HIST 631-3. Readings in the Age of Revolution 1789-1870. Ga a e e e e a a e f E e a Pe A a e f c

HIST 635-3. Readings in Modern Europe, 1870-Present. Ga a e e e e a a e f E e a Pe A a e f c

HIST 646-3. Readings: Religion and Culture in America, 1500 to 20th Century. Ga a e e a e a e e a e e e c a e a e a c e A e c a e a e f e a a e e e a c e a a e Pe e e HIST

HIST 651-3. Readings in US History, 1765-1815. A a a e e a c e e e e f a a e a a e e e a f e A e c a Re a e e a a e S e e a a b a a e a e a c e a

HIST 661-3. Readings in US History, 1815-1876. Ga a e e e e a e a a c b e f e e a c e e C Wa a Rec c Pe Ga a e a

HIST 666-3. Readings in US History: Emergence of Modern America. E e e e a f e a e c a e c c a a c a f e US e e f e e e e c e f a e A e c a Pe Ga a e a

HIST 669-3. Special Topics. A e a e e a c a a a c a e c e e a a a e c e Pe Ga a e a e f f c

HIST 671-3. Readings in US History: The Super Power Era, 1918-Present. E e e e a f e a e c a e c c a a c a f e US e e f A e c a a e e Pe Ga a e a

HIST 676-3. Readings in the Trans-Mississippi West. A a a e e a e e e a e a f e e f e a M A e c a We e f e U e S a e

HIST 679-3. Readings in Latin American History. P e e a b a c e a e e a A e c a l e c e c a e e e e c e f a e ce a e f e c e be c e e

HIST 681-3. Readings in the Indian Subcontinent Since 1556. G a a e e a e e e a e e e e f S A a c e a e f e M a E e PRER A a e f c

HIST 686-3. Readings in the Pacific Rim Since 1600. Ga a e e a e e e a e e e f Ea A a c e

HIST 699-3 to 4. Special Topics. A e a e e a c a e a a a c a e c e e a a a e c e Pe Ga a e a e f c

HIST 711-4. Research in Medieval European History. Ga a e e e e e a c a e a a f a c a a e a c e e a e Pe HIST

HIST 715-4. Research in Renaissance and Late Medieval History. Ga a e e e e e a c a e a a f a c a a e a c e Re a a c e a a e Me e a E e Pe HIST

HIST 722-4. Research in the Reformation and Counter-Reformation. Ga a e e e e e a c a e a a f a c a a e a c e e Ref a a C e Ref a Pe HIST

HIST 725-4. Research in the Old Regime, 1648-1789. Ga a e e e e e a c a e f E e a Pe HIST

HIST 731-4. Research in the Age of Revolution, 1789-1870. Ga a e e e e e a c a e f E e a Pe HIST

HIST 735-4. Research in Modern Europe, 1870-Present. Ga a e e e e e a c a e f E e a Pe HIST

HIST 746-4. Research in American Religion. Ga a e e e a c e a e a a a e e e a c e c a a e c e a c e A e c a Pe HIST

HIST 751-4. Research in US History, 1765-1815. A c e a e e a c Re a A e c a Pe HIST

HIST 761-4. Research in US History, 1815-1877. A c e e a c f MA e S e be e e e a c e A e c a 8 8

HIST 766-4. Research in US History: the Emergence of Modern America, 1876 - 1918. Ga a e e e e e a c e A e c a Pe HIST

HIST 771-4. Research in US History: The Super Power Era, 1918-Present. Ga a e e e e e a c e A e c a Pe HIST

HIST 776-4. Research in the Trans-Mississippi West. A a a e e a c e e a e a c e a e a e a e a c a e c e f e Ta M A e c a We Pe HIST

HIST 779-4. Research in Latin American History. S e e a e a ce e eac fa c f e c ce e e f a A e ca P e HIST

HIST 781-4. Research in the Indian Subcontinent Since 1556. A a a e e a c e e e eac a e a e a e a eca e c S A a P e HIST 8

HIST 786-4. Research in the Pacific Rim Since 1600. A a a e e a c e e e eac a e a e a e a eca e c Ea A a P e HIST 8

HIST 940-1 to 3. Independent Study in History: Undergraduate. P e C e f c

HIST 960-1 to 3. Independent Study in History: Graduate. P e I c c e

HUMANITIES

HUM 303-3. Humanities: 1848, The Rise of Modernity. A ea f ca a a c a ec ca e 8 8 e f c e ec e a D c e Ha T e D a Ca e e Rea f C be e e f e e e e e C Ma fe a e a ea a a a e T e e e e e f e P e ENG e ae

HUM 311-3. Film, Technology, and Culture. A f a ac a e c e ee e a e e a e e c ca eac a a ca a e f be a a e ec be c a e P e ENG e ae a J a

HUM 313-3. The Baroque. T a e c a c e f c a a c e f e Ba e e I e a e e c e e ac f ca a e ab a e e f e ce ce ea e ea e a a c P e ENG e ae

HUM 314-3. Mythologies. A e a a f ce a a c e a e c a e a e e e e e ffe e e c c a ea e c c a a c e

HUM 317-3. Minority Voices. T e ce c ce eb a e a ace ca e e c ea e a e a Se ec e ea e a a c ca a ca c e A a f c a ca a e ca c ce

HUM 399-3. Special Topics in Humanities. T e c a b e e e a a ec cc e a be c e ac e a e e a e S e c ec eac e e e Sc e e f C e f ec c c

HUM 940-1. Independent Study. I e e e S H a e ea ef e e ee e ce H a e a f e Ge e a H a e Re e e Pe f D ec f H a e e e P e Pe f D ec f H a e

INTERDEPARTMENTAL STUDIES

I D 101-3. Freshman Seminar. A ee c e e c a ea e e e ce e fe e ccee c e e S e e e e ea ea a ec ea ea c ba e e f a e a f a c e a c e fac a ee T ec ee a e fac c ac c ab a e ea a ca e ce a a e fa e c a ee c c a a P e P a e e a

I D 103-3. Fundamentals of Written/Oral Communication. F a e a f e a a c ca ece a f e a a e aca e c cce T ec ef c e ee ea e c e ae e f e e a

ba cc e f a a e E a a c ca c ee c E e e ae a c a e ec e ae a a UCCS

I D 105-3. Quantitative and Qualitative Reasoning Skills. De e b c e a c ee c a a ea a a e I c e c c a ca ec a a c be a a eb ac T ec e e f e ea a f e Q a a ea Q a a e Rea e e e

I D 111-1. Academic Fitness. I c e e a e e a a e e e a e a c ca a a a e c ca T e e e aca e c cce a e e a a e c ea e c e be a e c c e Re e f AS ec e e e fe a aca e c ba a e e e e e e

I D 200-3. Mathematics: A Human Endeavor. A c c e a e ac a a be a a De e e a e e bea f a e ac e a ace a e ea Rec e e f e e e bec a f e e T c e e f e ea a f Q a a ea Q a a e Rea e e e

I D 205-3. Beyond the Finite. S c a a e e a e a c a a e a ea f a e ea a ea a e c e e f a f a a a ea J a e e e e e ee a ea e ac a a ce c e e f E e a Fe e ee e e Ge e Ca c e f e e S ec e e f a a ce ce a a a e ca a b ca be e ec e be e e e e A e f AS Na a Sc e ce a ea e e e

I D 301-1 to 3. Transition Seminar. S ec ca e e f e e e a fe e c e e e e ae e UCCS ca c e e ea a ec ec ba e ea c a ec ca e eac c ee ce a e e aca e ca ca ee Eac e e e a c e a e acc ee b a aca e c e ec e N e e a e a e I D

I D 366-3. Service Learning: Theory and Practice. C b e e ac ca a ca c e ea a e c a a e ce ea ec P e S e a c e f c

I D 371-3. Great European Film Directors: A Historical View, 1945-1994. A f e f c e a f ea E ea ec f WWII e f De S ca A Fe Pa Ta Pa a a Wa a Ja a a G ee a C e be a a ab e e ec ef a A a Sc e ce a Mee FI M

I D 372-3. Russian Avant-Garde Cinema: A Historical View, 1915-1995. A f e f ea ea f R a a S e c e a f ea ec E e e Ta Pa a a S e a e f E e e c e ac ee fea e e a ea ee eea e e A a ab e eec ef a A a Sc e ce a Mee FI M

I D 373-3. Russian Art Cinema Today: A Historical View. A e f e a e a e e f be ec ca c c a I e a S M a a a e a a e e ec b bec e ca c E e e c e ac ee fea e fe a a ab e c e ca A a ab e e ec ef a A a Sc e ce a Mee FI M

I D 401-1. Honors Senior Roundtable: Sharing Passions, Sharing Perspectives. Se e a a e e e e ec a a e e e a f e a e a e ec e a e a ec e f b e

e a ce a a e P e C e f c O e e a a e e e b a f a e a e C a

I D 409-3. Peer Mentoring for Freshman Seminar JTAs. E a e ec e e a ce e f eac a ea f b e e ca a a a c e ec e S e ea e ee c ac a e a ea e e e a ce f fac P e I c c e

I D 410-1 to 3. A Sense of Place. F c e e c a ac e fa a c a ace A e a f e e ace be acc e a a a f eec e a ec c a c e e a ea a e a

I D 445-3. Creators of Mathematics: A Historic View. A c e f a e a c a c ea Tace e e a f e ea e a e a ca fa e E e b a c e f e ea De e f a a e ca a a b a a be a a ab e e e e ce f ce ce a a a Mee I D a HIST

I D 446-3. Emergence of Graph Theory: A Historical Exploration of a Mathematical Theory. E e e e e e ce f G a T e S e a ee a e a e c ea A a ab e eec ef a a e ca c a e a P e I D I D c e f c Mee I D

I D 450-3. A Serious Course in Recreational Mathematics. A e c e c a e ac e f a e a ca a e e a c e e a e bea ee a ce a a a e f a e a ca ea A a f ec e e a c a e ea a C a Ma e a ca O a f a e c e Mee I D

I D 480-3. What Is Mathematics? De a e a e a ca c ea e e e a e ac be f c e e ea e be a e a ca f e e ea a ea f a e ac e e ea be I a ab e f a a a a eac e a e a f a ce ce a a e ca a P e H c a e ba I D a c e e Mee I D 8

I D 485-3. Geometric Insight in Combinatorial Mathematics. Ge e c a bea f a e ac I e a e e e f a a e e a a a a c b a a a e ac De e f a a e ca a a a ce ce a b a be a e b a e e a e ac P e H c e e

I D 490-3. Mathematical Coloring. S c ca e a e a ca be ace ea f c e e c b a c be e a e a ea f a e ac A e a f a a e a ca I a ab e f a a a a eac e a e a ce ce a P e H c e e Mee I D

I D 499-6 to 12. Argonne Semester. S e a A e Na a ab a e e J ea f acce a ce e a A e Sc e c e eac a f e a a e P e Acce a ce b e A e Na a ab a a a a b e ea f ec e e

I D 545-3. Creators of Mathematics: A Historic View. A c e f a e a c a c ea e ea e a e a ca fa e e e a e b a c e f e ea P e I D Mee I D a HIST

I D 546-3. Emergence of Graph Theory: A Historical Exploration of a Mathematical Theory. E e e e e c e f G a T e S e a e e a e a e c e a A a a b e e e c e f a a e c a c a e a P e I D c e f c M e e I D

I D 550-3. A Serious Course in Recreational Mathematics. A c a e a c e f a e a c a a e e a c e e e a e b e a e e a c e a a a e f a e a c a e a A a a f e c e e a c a a c a e a e C a M a e a c a O a P e I D c e f c M e e I D

I D 580-3. What Is Mathematics? D e a e a e a c a c e a e e e a e a c b e f c e e e a e b e a e a c a f e e a b e a e a c a f e e a b e a e a c e e a b e I a a b e f a a a a e a c e b a b e f e e c e c e a e a e a b e e a e a f a e a c P e H c a e b a I D a c e e M e e I D 8

I D 585-3. Geometric Insight in Combinatorial Math. G e e c a b e a f a e a c I e a e e e f a a e e e a a a c b a a a e a c D e f a a e c a a a c e c e a b a b e a e b a e e a e a c P e H c e e

I D 590-3. Mathematical Coloring. S c c a e a e a c a b e a c e e a f c e e c b a c b e e a e a e a f a e a c A e a f a a e a c a I a a b e f a a a a e a c e a e a c e a e a c e c e a P e H c e e M e e I D

I D 940-1 to 3. Independent Study: Undergraduate. I e e e e e a e a e U e D

ITALIAN

ITAL 101-4. Beginning Italian I. E e a f b a c I a a O a a a e e a a e a a a a

ITAL 102-4. Beginning Italian II. E e a f l a a c e A a a a a a c c e c e a e a a e a a P e ITA e a e

ITAL 211-4. Intermediate Italian I. I a a a e e e a e e e c c e a c e a c a e a e a a e e P e ITA e a e

JAPANESE

JPNS 101-5. Beginning Japanese I. S e a e a J a a e e E a e f e e c a e a H a a a a a a a a

JPNS 102-5. Beginning Japanese II. C e e a e a J a a e e R e a a e e f e f H a a a a b a c a P e JPNS e a e

JPNS 211-3. Intermediate Japanese I. C e a a J a a e e a e e e a e e e R e a a a a f a P e JPNS e a e

JPNS 212-3. Intermediate Japanese II. J a a e e a e a a c e e e a e e e S e a e a a a a a f a P e JPNS c e f c

JPNS 320-3. Japanese Culture and Civilization. E e e f c e a c a a f e J a a e e e e c e

JPNS 920-1 to 3. Independent Study in Japanese. S e e c e c J a a e e a a e e a e a c e M a b e f f e e e e c c e e M a b e e e a e e e f c e P e JPNS

JPNS 930-1 to 3. Independent Study in Japanese. S e e c e c J a a e e a a e e a e a c e M a b e f f e e e e c c e e M a b e e e a e e e f c e P e JPNS

JOURNALISM

JOUR 100-3. Contemporary Mass Media. E a e e a e a a e e a c c e a a a e a e a c a e e c a c a a c a c e M e e C O M M

JOUR 290-3. Writing for the Media. F a e a f e a e a e f M e e COMM

JOUR 666-3. Media Ethics. S e e c e c e a e a f a c e c a e S e e a e c e e a a c c e a a a e e c c e a e c c a b e T c a e a c e e e e a e c e e a e c a c a b e f c a e a e e a e e a e a

LATIN

LAT 101-4. Beginning Latin. I. E e a f a E e e f a a e a a

LAT 102-4. Beginning Latin II. C e e f a a a e a e e a a P e AT e a e

LAT 211-4. Intermediate Latin I. a a e e e a e e e R e a c e c a a e a e P e AT f c e c e a c e e

MATHEMATICS

MATH 090-2. Fundamentals of Algebra. A e e f b a c a e b a a a e c c a e b a f a f a c a f e a a e c e a f a c a a e e a f e e e a e a a e a e e a a b e a a c e a f a c A e e e D e a e f M a e a c P a f a a D e c a B A B S e e e

MATH 104-3. College Algebra. A e e f a e b a c e a a e a e C e e f e e a e b a c c e b e e e a e a a a a e a e b a c T e c e a a a e e a a a c f c a e a e f e a e a e P e S c e e a e b a a c e a *** See Ma e a c De a e e e e c ***

MATH 105-4. Elementary Functions of Calculus. A e e f e e e a f c e e f c a c T e e f c c e a a a e e a a c a e c f c E a e a e b a c c e a a A a f c c e c a a a c e e b e c e G T M A P e MATH c e e a e b a a c e a **See Ma e a c De a e e e e c ***

MATH 111-3. Topics in Linear Algebra. F b e a e c c e S e f e a e a a a e b a e a b a b a c P e MATH c e e a e b a a c e a **See Ma e a c De a e e e e c **

MATH 112-3. Calculus for Business and Economics. C a c f b e a e c c e P e MATH c e e a e b a a c e a **See Ma e a c De a e e e e c **

MATH 120-3. Reasoning about Data. H e e e e a a e a a e e a b a c e a e c e e a a e a c a a a c e a a a T c e e f e e a a f e Q a a e a Q a a e R e a e e e

MATH 131-3. Calculus I with Precalculus, Part A. S e e MATH f c a c c e e e A e b a c a e e a f c c a e e a e e e a e e e MATH a e e a e e MATH T e e e c e MATH e e f e e a a e e e c e f c a e b a a e c a c a b e a e a e f MATH C e a e f b c e a MATH P e e a c a a e b a e e e e e a e T e e a e f MATH C e e A e b a a MATH E e e a F c f C a c c e e e A e b a P a c e e E a AND c e e e C a c R e a e E a M e e a f c a e a c A e b a l a e a f

MATH 132-3. Calculus I with Precalculus, Part B. C a f MATH S e e MATH f c a c c e e e A e b a c a e e c a e e a e e e C e a e f b c e a MATH P e MATH e e a e f MATH C e e A e b a a MATH E e e a F c f C a c c e e e C a c R e a e E a M e e a f c a e a c A e b a l a e a f

MATH 135-4. Calculus I. S e e c e c a a c a e e a c a c R a e f c a e f f c e a e f a e b a c a c e e a f c a c a f e a e a e a P e MATH c e e e A e b a P a c e e E a AND c e e e C a c R e a e E a *** See Ma e a c De a e e e c ***

MATH 136-4. Calculus II. C a f MATH T a c e e a f c e c e a a c a f e a T a e e e e a e e e a a c e e a c a e P e MATH

MATH 215-3. Discrete Math. I c f e a c f c e e a e a c c e e e c b e e e c c b a c a a e M c e a b e f c e e e a e f a e a c a f c c a c a c P e MATH

MATH 235-4. Calculus III. C a f MATH P a a e c c e e c f c a a f f e e a e e a G e e T e e a S e T e e P e MATH

MATH 281-3. Introduction to Basic Statistics. S f e e e e a a c a e a e l c b a b a c a b a c a f e e c e a e e P e MATH e a e

MATH 301-3. Mathematics for Elementary Teachers I. C e e e b e e a a a b e e a a e f e a c e e e e a e a c e F e a e e e a e a c e c e c a

MATH 302-3. Mathematics for Elementary Teachers II. I e a c a e e e f e f a e a e a f e e c a a a e c e c e a e a e e l c e f a e a a c a e e F e a e e e a e a c e c e c a

MATH 310-3. Statistics for the Sciences. D e c e b a b e e a a e c e D c e e a c a a b e e a e a a a c e c e c e c e a a e e P e MATH

MATH 311-3. Theory of Numbers. A ca ef
e a f f ef c a cae
e e f e e b c e ce a
e cf c f ae a a ce e
a ec c a ee e a e b
f e Pe MATH a MATH

MATH 313-3. Introduction to Linear Algebra. S e
f ea e a a ce ec ace ea
e e e ce ba e e e a ea
a f a a a ce e e a e a e e ec
Pe MATH

MATH 340-3. Introduction to Differential Equations.
F e ffe e a e a ea ffe e a
e a e a ace a f e e e e
e ca ea e Pe
MATH

MATH 341-3. Estimation, Convergence and Approximation. Se e ce e ca e e a e
e e l e a a e a a ff c e e b
e a T c e e a c
f aa a ec e e f
e a a e MATH Pe MATH

MATH 350-3. Graph Theory. S a a a e a e
e f b e ce a e ce a c
e c ce f c ec ee
a e ab a a a c be ea
a a ce Pe MATH

MATH 351-3. Topics in Combinatorial Analysis. A
e f a a ea fc b a c T c a
c e e e a e c e e c e ce ea
c b a a e a e a c a
a Pe MATH

MATH 381-3. Introduction to Probability and Statistics.
T e a f bab a c a bab
be e a e a e e e e a ca
a a a f c e e a c bab
b A e e ca a a ce c ea
a b f a a abe be
e T e a f a e N be a e Ce a
T e e be e e e A ca a
c c e e e c e ce e a a
e e Pe MATH

MATH 405-1 to 3. Topics in Mathematics Secondary Classroom. T e c c e e a f e ffe
e e T c bec e ee e ee
f ec a a e a c eac e f a a a
eac eC a M e C e Sa a
Pe O e e e e f cac c a a
Mee MATH

MATH 410-3. Technology in Mathematics Teaching and Curriculum. Me f ec a a
eac ea f c a c e e a
c e U e f a cac a c e a eba
e c e e e e a e e e
bee a e S e a e e e e e
a e e a f f e ec Pe MATH
Mee MATH

MATH 413-3. Linear Algebra I. Vec ace ea
a f a a a ce e e a e e a
e a a f a a a
a f a a a ce a a a c f
Pe MATH Mee MATH

MATH 414-3. Modern Algebra I. A ca ef f
e e e a e f a e
Ma c a a
a e c e e T e e be e e c e e
e e Pe MATH a MATH O e f
MATH MATH MATH efe ab MATH
ec e e

MATH 415-3. Modern Algebra II. C a f MATH
Ga e Pe MATH Mee
MATH

MATH 421-3. Higher Geometry. A a c e e e
f a fE c e a a bac e a e e e
Pe MATH MATH Mee MATH

MATH 423-3. Fractal Geometry. I c e a e
f c e a a e a c a a ec f f a c a
e l c e e c a c e a e a c e f a c a e
a f a c a c a a C a e
T e e c a c a c a e e f a c a
e f a c a e a a e a e
f a c a Pe MATH a MATH Mee
MATH

MATH 425-3. Introduction to Chaotic Dynamical Systems. I c a c a e
c e e a a e e e c e e e
b e a f e f c c e
b f f e e a e a E a e a
c a c b e a a c c e a e e a
f c e a e T c c e b a
c a a a e a e c b f c a
b c a c c a f a c a a J a e Pe
MATH Mee MATH

MATH 431-3. Modern Analysis I. Ca c f e a
a b e e e a b e e c f f e e a
e a Pe MATH a MATH MATH
e c e e

MATH 432-3. Modern Analysis II. Se e c e a e e
c e e c e f c e e c e Ta e e
c a c f e e a a a b e c c f
f e e a a e a Pe MATH Mee
MATH

MATH 442-3. Optimization. e a a e a
a e e a a e a a c e
e a a a e e c e f c
c c a c f a a Pe MATH
a MATH Mee MATH

MATH 443-3. Ordinary Differential Equations. e a
e f f ffe e a e a e e c e a e
e e e e a b e e c e e a e
b e a a a f e a a f
a c a Pe MATH a MATH Mee
MATH

MATH 445-3. Complex Variables. T e f f c
f e c e a a b e c e a e
e e e e c f a a a e c a f c
Pe MATH Mee MATH

MATH 447-3. Methods of Applied Mathematics.
B a a e b e f e a e e a a a c e
e a e a a f a a b e e e e a e
b e F e e e a e Pe
MATH MATH a MATH Mee MATH

MATH 448-3. Mathematical Modeling. T e e f
e e a e a c a e c e a a e a e
b e f c e c e a e e a c a
b e e a e a c a e c e c
a e e C e a b e a
a e a c a e C e c e e c a e f
a e a c a e c a b e
a c a e b a b e a c e
a C c a f e f a e a c a
a a Pe MATH MATH a MATH
MATH 8 ECE Mee MATH 8

MATH 465-3. Numerical Analysis. E a a
e c a e a a f f e e a
e c a e a f a f f e e a e a
e c a e a a e b a a e e a e b e Pe
C S MATH a MATH Mee MATH

MATH 467-3. Scientific Computation. De c a
a a f a e f e c a f
a a f f e a e a f a c e c e c e
a e e e T e a e a e e c a
a a b e a c c a c a a e c e
P e MATH MATH MATH a C S
e a e Mee MATH

MATH 481-3. Mathematical Statistics I. E e a
Be a Ga a S e F e a C a e b
a e c e e c e a a
c a b e e e a e c e
a f a f a a b e a e c P e
MATH a MATH Mee MATH 8

MATH 482-3. Mathematical Statistics II. P a
c e c e e a e a c e f a
e f c e c a c e e e e f e
a c e e e e a e a e
e e a a O e c b e c e P e
MATH 8 MATH Mee MATH 8

MATH 483-3. Linear Statistical Models. Me a
e f e a a e b a a e e e e f a e a
a f a e a a e a e a e f a c
T c c e e e a e e a a e a
b a e e e a e a e A c a
f c e b e e a c
e T e S a c a A a S e f a e
c e a a f c a P e MATH
8 ECE MATH a MATH Mee
MATH 8

MATH 485-3. Stochastic Modeling. Ma e a ca
e e e f c a c e e e Ma
c a e e e a b e a B a
a c a e e e a c e
c e c e P e MATH 8 ECE Mee
MATH 8

MATH 505-0.5 to 3. Topics in Mathematics for the Secondary Classroom. T e c c e e a
f e ffe e e T c bec e
e e e e f e c a a e a c e a c e
f a a a e a c e C a M e
C e Sa a Pe O e e e e e f c a c
c a a Mee MATH

MATH 510-3. Technology in Mathematics Teaching and Curriculum. Me f ec a a
eac ea f c a c e e a
c e U e f a cac a c e a eba
e c e e e e a e e e
bee a e S e a e e e e e
a e e a f f e ec Pe MATH
Mee MATH

MATH 511-1 to 3. Technology in Math Education Seminar. A f MATH S e
e e e a e c a a b a e
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E e e e c e a e f c e a e b a
e e e a a c a c a a e
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e a a c a c a e e Pe
MATH c e f c

MATH 513-3. Linear Algebra I. Vec ace ea
a f a a a ce e e a e e a
e a a f a a a a
a f a a a c e a a a c f
Pe MATH Mee MATH

MATH 515-3. Modern Algebra II. C a f MATH
Ga e Pe MATH Mee
MATH

MATH 517-3. Graduate Modern Algebra I. G
e e a e b a c e a Ga
e Pe MATH

MATH 521-3. Higher Geometry. A a c e
T e f a f E c e a a bac e a
e e e Pe MATH MATH Mee
MATH

MATH 523-3. Fractal Geometry. I c e a e
f c e a a e a c a a e c f f a c a
e l c e e c a c e a e a c e f a c a e
a f a c a c a a c a e
e e c a c a c a e e f a c a
e f a c a e a a e a e
f a c a Pe MATH a MATH Mee
MATH

MATH 525-3. Introduction to Chaotic Dynamical Systems. I c a c a e
c e e e e c e e e b e a
f e f c c e b f f e e a

e a E a c a cbe a fa e a e
e ea f c Ob a ca a a
e a e c bf ca b c a
c c a fac a a J a e Pe MATH
Mee MATH

MATH 527-3. Algebraic Coding Theory. T e ba c ea
f e e fe c ec c e a e e e e
We e a e a e a e
a ca T e ec e a e a f e a
a f a a Pe MATH

MATH 532-3. Modern Analysis II. Se ce a e e
c e e ce f c e e ce Ta e e
cac f e e a a abe c c f
fee a a e a Pe MATH Mee
MATH

MATH 533-3. Real Analysis I. Mea e e e c
a e e a ace c e c
f c Re a Se e a ebe e e a
Pe MATH

MATH 535-3. Applied Functional Analysis. A
c eba cc ce e a a ca
ff c a a a T c c e e c e e c
ace e ace H be ace ea e a
ec a e e e e a a a
e e Pe MATH

MATH 542-3. Optimization. ea a ea
a e e a a e a ac e
ea a a e e c e
f c c cac f a a Mee
MATH

MATH 543-3. Ordinary Differential Equations. ea
e f ffe e a e a e ece a e
e e e ab a f c e c
a ca Pe MATH a MATH
Mee MATH

MATH 545-3. Complex Variables. T e f f c
f ec e a abe c e a e
e e e e c f a a a ecaf c
Mee MATH

MATH 547-3. Methods of Applied Mathematics.
B a a e be f e a e ea a a ace
e a e a f a abe e e e a e
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MATH MATH a MATH Mee MATH

MATH 548-3. Mathematical Modeling. T e e f
e e a e a ca ec e a a ea e
be f ce cea e ee a c a
be e a e a aca e c e c
a e e C e a be a
a e a ca e C e c e e ca e f
a e a ca e c a be
a ca e bab e a c e
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MATH 8 Mee MATH 8

MATH 552-3. Perturbation Theory in Astrodynamics.
Pe ba e c a a ea
Ha a ec a c a e e e a e e
f a e a G a a a a e e e
Pe MAE PHYS

MATH 562-3. Complex Variables II. H G ba
Ca c T e e Re e T e c f a a
e c a a cc a ecaf c
e e c e c Pe MATH a MATH

MATH 565-3. Numerical Analysis. E a a
e ca e a a ffe e a
e ca e f a ffe e a e a
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MATH

MATH 567-3. Scientific Computation. De c a
a a fa e f e ca f
a a ffe e a e a f a ce ce ce
a e ee T e a e a e e ca
a a b e ac ca c a a e c e
Pe MATH MATH MATH a CS
e a e Mee MATH

MATH 581-3. Mathematical Statistics I. E e a
Be a Ga a S e F e a C a e b
a e c e e c e a a
c a a b e e e a e c e
a f a f a a abe a e c Pe
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MATH 582-3. Mathematical Statistics II. P a
c e ce e a e a c e f a
e f c e c a c e e e e f e
a c e e e e a e a e
e e a a O e c be c e Pe
MATH MATH 8 Mee MATH 8

MATH 583-3. Linear Statistical Models. Me a
e f e a a eb a a e e e e f a e a
a f a e a a e a e a e a f a c
T c c e e e a e e e a a e a
b a e e e a e a e A ca
f c e b e e a c
e T e Sa ca A a S e f a e
ce a a f c a Pe
MATH 8 ECE MATH a MATH
Mee MATH 8

MATH 584-3. Computer Vision. Re e e a
a a a f a a e F e a a
f a e e a ce e ec e a a a
fe e c a e e a ce e a
e e e a b a e e e a e e
ce a e ec a a ca
b c Pe Ga a e a a e a c e
ee c e c e ce Mee CS 8

MATH 585-3. Stochastic Modeling. Ma e a ca
e e e f c a c e e e Ma
c a e e e ab e a B a
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MATH 8

MATH 590-1 to 3. Graduate Seminar. Va c
a e a c a e a a e e e Pe C e f
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MATH 591-3. Theory of Probability. T e e ca
a ac bab Mea e e e f
a a e b f bab c e a e e a a
a ca Wea a a f a e be
ce a e ec e ce Ma a e Pe MATH

MATH 631-0.5 to 3. Mathematics and Economics for K-12 Teachers. De e e eac e
a e a c ce f a e a c a
ec c c ca be c a e a
e a c ec c c c a N a f MATH
a a a e e Mee ECON

MATH 700-1 to 6. Master's Thesis.

MATH 800-1 to 10. PhD Dissertation. E e
e e e a e P D a
E ee a a e a e a e
De a e f Ma e a c Pe C e f c

MATH 920-1 to 4. Independent Study, Math – Undergraduate.

MATH 940-1 to 3. Independent Study, Math – Undergraduate.

MATH 950-1 to 3. Independent Study, Math – Graduate.

MATH 999-0. Candidate for Degree.

MILITARY SCIENCE

M S 101-1. Leadership and Personal Development.
I ce e e a c a e e a c e
e c e a a e c ca f effec e e a e S e
e a c ca a e e a a e e
ca e a e a a e e a e
a e e a e Of ce a e A
fe

M S 102-1. Introduction to Tactical Leadership.
P e a e e f e a e f a e a c
a e c e e be e a
b e fee bac a effec e
S e e e e f e a e a e
a b e a a c e c e f c a
c a a c c a e e c e

M S 201-2. Innovative Team Leadership. E e e
e f c e a e a a e a c a e a e
a e e a e b e a e a a c a
c a e a e e e S e a c c e a e c
f e a a a e a b e c e
f a e e c a a e e a e e c e

M S 202-2. Foundations of Tactical Leadership.
E a e e c a e e f e a a c a e a
e c e c e a e a e e
H e a a a a a e a
e l c e a a c e f e e e c a b a
f A e a e a e e a c f a a e
e a e e c e f a e a

M S 203-3. Military Science and Leadership: "Leader's Training Course" (LTC). TC e A
e a ROTC P a e T TC
e ROTC Ba c C e e e e c e c a
a f f A a c e C e e T e A b e e
e e e a e e e e f c e e a a
e a e e e c a e a a e e
a a a F e c Pe M
f c e c e e M a e c e e
a b a c c e e e e MS MS MS
MS

M S 301-3. Adaptive Tactical Leadership. C a e e
e a c e a e a a e a a e
e a e a e e e c e a e a e
a a c c a e a S e e c e e a c
a e c c fee bac e e a e a b e a
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c c a a b e O e e a a e
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Ba c C e C e

M S 302-3. Leadership in Changing Environments.
E c e a e e e a e c a e e
b a a e e a e a a c c a e a
a e a a a e e S e e a b a c
f a b a e a c c a
b e O e e a a e e
Pe MS c e

M S 303-3. Leadership Development Assessment Course (LDAC). Ma a ee a c c c e
a F e WA f a a a a c e c e A ROTC
e S e a e a e e a e a
a e e f e b a e e e
a a e e a a e e a b f c e
A e a C a c A ROTC e Pe M
S a MS

M S 304-3. Military Science and Leadership Army ROTC Nurse Summer Training Program (NSTP). T
c e a e e e e c a a e
a A N e C e c e a a A a
e U e S a e e a l e c c a
a e f c e c a c e e e e e c e
e a c e e f a c e c c a M a
Sc e c e S e e c e e a e a a a a a e
M a Sc e c e Pe MS MS M
S Re c e A ROTC N e e

M S 401-3. Developing Adaptive Leaders. De e
c e c a e e c a a e c e
e a b f c a aff A e a e
e f a c e fee bac b a e c a e e a
ba c f a a e e e c a e c a
a c e a e A e e a c
e O e e a a e e
Pe MS a MS c e

M S 402-3. Leadership in a Complex World. E e e a c fea c e a l c e a a ce c a c a c e e a a a f a e fe a e e c a a a e e a a a c a e b a e e a a O e e a a e e Pe MS MS a MS c e

M S 498-3. Special Studies in Leadership. C e f e e a c a e A ROTC A a ce C e a e f e e e a ca fea e c e a a c T c e b a a e e e P fe f M a Sc e ce S e be A ROTC A a ce C e a c a Pe MS

MUSIC

MUS 100-3. Introduction to Music. A c a e c a e Tec e e e a c a c a c c a a c a c E c We e c a A e c a a e e e c e c e A e f ASH a e a e a e e e

MUS 101-3. Music Theory I. C e e b a c b b c f c c e e a e e c a e c a c e a b e f c e a T e e e e f e a a a e e Re e f e c

MUS 103-1. Sight Singing and Ear Training I. F e e e c e a e e e e e c e S e e e e f e a e c a a c c a a e a e e a a e e c

MUS 131-2. University Choir. S a e f a c e f c a c O e a a e e Ma b e e a e e e f a a f f c e

MUS 150-1. Applied Music – Private Instruction. T c e a e e a e f ca b a c F e e e e e e a e f f e e e a e f f e e e a e e a c e b e a a e e c A e a e e e e f a e e c a e c e e c e e e a a c a e

MUS 201-3. Advanced Music Theory. C a f M c T e I T c f a e a a c e f a c a e f e e a a e f a c e c a c a e a f e e e A a c e M c T e e e f e c P e MUS c e f c

MUS 203-1. Sight Singing and Ear Training II. F c e a a c e a e a a C e e f e c a e a e f e e a f e a e c a e a e a c a S e e a e a c e e a e a a c b e e c a a c a e a e P e MUS

MUS 205-3. Jazz History. E a e e f a c a c e S a e 8 c a e e e e c e a e e e f A e c a a f e e e c e e a b e a c b e e e c a e a a e a e e a a c a a c a e e c e f A e f A S C a D e e e e e M e e E S T

MUS 210-3. Rock-and-Roll Music. T c e e a c a e c a c e e a e a c a a e c c e c a c f e a c f e a e 8 e e e S e a e e c a a a e a c e a c a

MUS 215-3. The Computer in Music. S e e e e e f c e c c e e e e e c e a a c a S e e e a a e f e e a e e f a e a c e e a e c f c e c c e a c e a e a e f a c e

MUS 225-2. Jazz and Improvisation Ensemble. A e e a a a e f a c e b a e e e b e c a e a b e c e b e e a e e e e e e e e e e f f e e e a e f e a P e A

MUS 230-2. Electro-Acoustic Ensemble. U e a c b a f e e c c e a c e c a a a a a c c e a T e c e f c a c e a e e a e e f f e c c a e a f l c e a a a e e a c a a c a e a c a f a e a a c a b a c P e C e f c

MUS 235-2. Vocal Jazz Ensemble. P a c c a a e f e e e c e c a a l c e c f e e e e e Re e a c a a e f a c e c a a e c e e e e e P e A

MUS 240-2. Chamber Music Ensemble. T e E e b e e e a e a e f e a e f W e e c a c a c a b e c T e e e e a e f e b a e c a c a a c e c e a c e A e f b a a e c a e e c e

MUS 285-3. Western Music History I. A e f E e a a c c f a a c e e e e f e M e e a e C a c a e f G e a c a J S Bac H a a e a Bee e

MUS 301-3. Music Theory III: Form and Analysis. A c a a c e e f MUS a M e e e e a e a a c e b e a a e e c e f f c C e b e e e e a c a c e f e e e a e e c c e a c a a f e c e P e MUS AND MUS

MUS 315-3. Introduction to Non-Western Music. A c f e e e e f e c f a e c e c e f Af c a A a a e A e c a E a a e c e a f c a e e e c a e e a b e e c a c e A e f ASG b a A a e e e e e

MUS 320-3. Advanced Computer Music Composition. Ac a f MUS T e C e M c C e e e c a e f a e a c e c a c a P e MUS

MUS 375-3. 20th Century Music. A e f ca f c e a e c e P e MUS 8 c e f c

MUS 385-3. Symphonic Literature. G e a c e a f Bac Ra a a a a b e e l c e e c c e c e a a a e a a c f e a ce e A e a c e a c c e a e e a a e e

MUS 403-1 to 3. Internship in Music. De e ca e e e c e e c ca ca f e e a c c e a e e f e a a Pa Fa P e P e f P a D e c

MUS 493-1 to 3. Advanced Special Topics. S e c a a a e e b a S b e c ffe e e e c a e e a c a c Ca b e a e c e f c e b e a a a a a a P e MUS COI

MUS 495-1 to 3. Special Topics. S e c a c a e a a a e e b a S b e c ffe e e c a e e a c a c

MUS 940-1 to 4. Independent Study in Music. U e a a e e e e c a f e f e b a a e e

PHILOSOPHY

PHIL 100-3. Introduction to Philosophy. A c e f a e a e f a f e e a a e e f A e f ASH a e a e a e e e GT AH

PHIL 102-3. Ethics. I c f a e e a e f e f a c e f e a a a a c c e S e a e e c e a c c a e c e a b A e f ASH a e a e a e e e GT AH

PHIL 104-3. The Individual and Society: Creating a Self in Society. A e e a e a e e f c e a a e f a e c c a a a c e c e l a c a e c e a c a e a f a f c a e a e b a e A e f AS a c c a e e e e

PHIL 105-3. Philosophy and Religion. A c e c c a a c e e f a e a e e a c e a a a G e e c e A e f ASH a e a e a e e e

PHIL 110-3. Introduction to Religious Studies. A c e f e e a c a b a a a e e a e e b e e f T e c c e f a c e a a e a c e e a e e e e e c e b e c e a f f e e a a c e e c c a c c a a c a e f e

PHIL 112-3. Critical Thinking. I c e f a a f a a a a c c a e c e e e e a a f a e a a a e A e f ASH a e a e a e e e GT AH

PHIL 115-3. Ethics in the Professions A e a a f e a c a b f e a a e c a e e e c c a e a e b a e c e e e a c c e f f e c a b e e e e a e a c a e a e a c

PHIL 131-3. A Lab of Her Own – Science and Women. A c a a c e c e a e f c e c e a l f c e e a c a b e f a f c e c c e a e e e e e f e M e c c e f c e c e a a e a c a e a e c b e e e e e T c e ffe a f e c e f e a a e f c e c e M e e P E S a WMST

PHIL 309-3. Philosophies of Asia. C e c a c a e c e e e e a e f e a c a e a f A a c H B C f c a D a a S A e f AS H a e a e a a G b a A a e e e e e e

PHIL 310-3. World Religions. A e a c c e c e e e a e a e a e f e a e a a a f e b e f e a f a A e f ASH a e a e a a G b a A a e e e e e P e P e c e

PHIL 311-3. Women and Religion. E a e e a c e a e b e e e a e c a a c e a e e a c e a c e a b e f T c e e e e a a e c a f e e b e e e e a e e c a f a e e a b e a a a b e e e a M e e WMST

PHIL 312-3. Greek and Roman Myth. A
ca e a a fGee a R a ba e a
a e face a e e e ca e
c a ac e f ePe cac Pa
A eS c S c a Se a cTe
P c a a a R aTe

PHIL 316-3. Philosophical Issues in Death and Dying. T e a fea a e
fWe e f a c e a
E e a Dea e a a fe ca e
a e ecae f e E a a a a e a
f ea e cae f e e e b ec

PHIL 317-3. Theories of Knowledge. C e a
f eca ca a c e a c b e
aa f e a e a c f
e e Mee PHI 8

PHIL 320-3. Politics and the Law. E a a f e
e a ece e e ec e a
e be a Ma a a a c c b
c e a c a a ca e A e f
AS S ca Sce ce a e a e e e

PHIL 323-3. Women's Equality, Women's Difference.
A c c e a e e b e f
ca e a e f e a c e a
c a a a e f e c a ca a
c c e c a ca e A e f AS
C a D e e e e Pe PHI WMST
WMST Mee WMST

PHIL 324-3. Philosophy of War and Terrorism. C ca
e a a f e cc e a
e e a affec a c c e a eace
e a a f a e e c c
a a e e c e a f efea b
f a c A e f AS G ba A a e e
e e e

PHIL 330-3. Philosophy of Mind. C e a f e
ce a be e f c
e b be e e e f e
fee a e e a e a c
f c ce c a a c e e e e
e e c

PHIL 333-3. Understanding Emotion. P a
e e ee a e e a e a fe a
e e e f a a ca
e e a e e a e e f c
e a T c e e e e fe
Pe PHI a

PHIL 334-3. Love and Hatred. A e a a f e
a a e e f c
c e e e a e a c e c e e e e
e a ab e a a e Pe Pe c e

PHIL 335-3. On the Nature of Things (Meta-Physics).
Ta a a c e a e e f e ba c
ca e e e e c be e a a e a
e a c c c e c a b a c e
e a c e a e c a a e e a a
e a c Pe f

PHIL 339-3. Philosophy of Psychology. C e c e
ca ca a c e a c f ca
e a e b c ca e l e c e
e c Ja e c a a ca e f
e e f Fe H e e a e Pa e e
c J be a S e fe
c C G a c e c e c e
c a a a e aca a e e a
c Me e a P

PHIL 340-3. Holocaust. De a e a a f e
H ca a e ca a a ce Ma f c
e Je ca a e a e e c ce
b e a e e e a e f ca
E a a f e a a e
ca e c e a c e a a c e e a a e
f fe A e f AS G ba A a e e
e e e

PHIL 344-3. Symbolic Logic. A e f e e a
a e c e f e b c c c
e e a f a e be e e a a
a a e a c f e f a f
a e c a e e e Mee PHI

PHIL 345-3. Mathematical Logic. I c e
a e a c a c T c c e e
a c a e f a be e a a c
e e c ab I c e e e e c ab
a a a e c be c e Pe MATH
MATH PHI PHI

PHIL 348-3. History of Philosophy: Philosophies of India. H ca e e e a a c ca a a
f e a ca e a c f I a
c e Ve a U a a a B a a a G a e
c Ja B a e
I a e c Ga a Ra a a

PHIL 349-3. History of Philosophy: China. H ca
e e e a c ca a a a f e a
ca c a e f C a c C f c a
Ta C a e B Ne C f c a a
e C e e

PHIL 350-3. Buddhist Philosophy. Ge e a e f e
B ca c ce f b e T e a a a
a Ma a a a a c a a a a a
a a e T e e a be e e Pa S a
a e T e a a a a be c e a e
a e e a be e e Ma a a a a e Pa a
Pa a a S a e c f Ma a a a c a
C a a a a Ma a a a a be ce

PHIL 351-3. History of Philosophy: Pre-Socratics.
S e a c e a a f e e e e f We e
f ce a e e S c a c
a e a c Pa a A e Pe Pe
c e

PHIL 353-3. History of Philosophy: Hellenistic.
H f We e e He e c
e c BCE CE C e S c
E c e a S e c A e Pa a
e c f Je a C a
a P f Ae a a a S A e
e e c e

PHIL 354-3. History of Philosophy: Medieval and Renaissance. H f We e f
e Me e a e e be f e
e C e c e C a Je a l a c
e c A e A e A c e a
A e e Ma e A a Oc a Mac a e
a F Bac

PHIL 356-3. History of Philosophy: Modern Classical.
S e a c e a a f e f a e a
c be e a e b Ra a a E c
e a 8 ce e H bbe De ca e
c e S a e b Be e e H e e e ca
e c ce e f a a a f
e e a a e e c e e a f e e
a

PHIL 357-3. History of Philosophy: Kant and the Enlightenment. S f e E e e A e f
Rea e c a e a a a e
f e c a c c

PHIL 358-3. History of Philosophy: From Hegel to Nietzsche. S e f e f e a e e
c e c a He e Ma e e a a
Ne c e

PHIL 360-3. Philosophy of Religion. De a e a a
f e e e e c e f Ea e a We e
a c c c
e e f G a e e a b e a a
a a e e c e f e c a

PHIL 361-3. Philosophical Approaches to the Hebrew Bible. T e f a f e O Te a e a c
a a c a a a e a f e
a e e e O Te a e e
e c e c a e e e f e a c e

Nea Ea a e e e c e O Te a e a e
f b b ca e e a

PHIL 362-3. Philosophical Approaches to the New Testament. A e a f e e e e f e
Ne Te a e c a e f e
a b a e He e c a Je bac
e Ne Te a e e f Te c e f c e e
c a be f e e e e c e f a e
ca e e c e e Ne Te a e
e e c a e c a b e e e a c f Je
a e f Pa

PHIL 363-3. Gender and Race in Biblical Literature.
C e e a e e e e c e e a
e e a e a f e e a a c e b b c a e a e
a e e a b e e c a e e e e
e e a e Mee EST a WMST

PHIL 369-3. Post-Ottoman Islamic Philosophy, History and Culture. A e a f e e e e f
A a b l a c a c e
e O a a C a e e c c
f e e A a b a e a e e e e c e
f c e a l a c c a T c
c e a a b a a e c a c a
a e

PHIL 370-3. Aesthetic Theory. I e a f
c c e c a e a e e c b e c e a c
e e e c e a c e a e e e a a c e f
c e a e e e e e b e f a e c
e a a Mee PHI

PHIL 373-3. Philosophy and Literature. A f e
e e c f a e a e e b e e
e a c e e f e e a e c a
e e e e e e a a c a
b e a e b e a e

PHIL 404-3. Continental Philosophy: Early 20th Century. C c a a a f e a c e
c a e e c a e e
c a a e e e c e a e
a e c a a c a
e a a e e e P e e c e
Mee PHI

PHIL 406-3. Continental Philosophy: Mid-20th Century.
A e e e a a f e a E e a
c a e e f e c e
c e e e e a c a
c a e a e a
c a a c a e f e e
P e e c e Mee PHI

PHIL 407-3. Existentialism. Ma e e f e a
f e e a a a Ne c e
c c e e a Ja e He e e
Sa e a Ca Mee PHI

PHIL 408-3. Continental Philosophy: Late 20th Century. A e e e a a f a e c
a l a a De e e Ba a Habe a F c a a
De a a f a e e c a c c a e

PHIL 410-3. American Pragmatism. A a a
a e c a f A e c a a c b
e e c a f e a a A c e a e
f a a e e c e a c e e a a
a a Mee P

PHIL 414-3. Philosophy, Globalization, and Sustainability. T e c a c a c e f e c
f e a b a e e a e e c A c a f
e e a e c c e a e b e
f e e e a e b e f e a a f
a e c e a e e a e e c e c e
f c b e e a a a a b a f e c a
Pe Pe c e Mee PHI

PHIL 415-3. Ethical Theory. T e b e f a a
c a f e c a a a c a e e c e
e a e f e f e c Pe PHI
PHI PHI Mee PHI

PHIL 416-3. Business and Management Ethics.
De e eac e a ecae ee ca
e f ec a ce c
b e aae aee ae e
ca ee Mee PHI

PHIL 417-3. Health Care Ethics. E ca e
f eae ca ea a e ac f
e ca ec T c c e f e c e
a e e e a a bec ec ca
a a fb a ea ce e a ca f
e ca e ce e e c cee e ace
a e e c e ee Mee PHI

PHIL 420-3. Consciousness. C c e a
e e e e a af a e a c c e
ce ce c e ce ce a T c e
ce e e f e ece e ce c
e f c c e a e e f e
ca be e b c c e Mee
PHI

PHIL 425-3. Topics in Social Theory. I e e a
a fa a c a e c e a ca e
c a c ca e eFa f c Ma
a Ma ec c e c ac ee ec
e a ec c Pe f
Mee PHI

PHIL 426-3. Philosophy of Law. A c e a f
a e f e a e fa e ce
a ea e c e Ea a f e
cc e a e ea affec e a
c e a ce e A e f ASS ca
Sce ce a ea e e e Mee PHI

PHIL 435-3. Analytic Philosophy. A a c P
a e e ec be b a a c a e a
a e f T c ee a e a
e a a ea e e ef e
ce e f e a a ca e
a be a ec e ce f e a e
Mee PHI

PHIL 440-3. Philosophy of Science. A c e e a a
f e e a c
f ce ce A e be e c e a
eba e c a e e f ce ce
e f ce c e e e c f ce c
c e a e a e e a f ce ce Mee
PHI

PHIL 441-3. Philosophy of Biology. A b a e a a
f e e e b f e e f
e c e a eba e c ce DNA a
e a e e ec

PHIL 443-3. Logical Theory. A e e e f
e f ca a a ce c T c
e a e c e a c a a e c ec
e c f c e a c a a a
c e e e P e PHI Mee PHI

PHIL 444-3. Decision and Game Theory. I ce
e ec e a a e e T c
c e a a a e c e a Na e b a
a e c a e e c a e c a e
ca a c e a e a e
a e a e e a P e PHI
MATH

PHIL 446-3. Theories of Human Nature. A e a a
f e a f a a e f a
e ec e c G e e e a a
a a e e a a a a e e

PHIL 449-3. Philosophy of Language. A ca
e f e e e f a a e
T c c e e c e e e a efe e ce e a
e e f a a a e
ec c a ca a e e f efe e ce
A c e e c e F e e H e De Sa e
W e e A De a a e Mee
PHI

PHIL 455-3. Feminism, Sexuality, and Culture. A
e a a f e e ce ca e ec
e f e ce e e e fe C e
c e e e e f e e a a a e
f ca e e e e e b a a f
A e f ASC a D e e e e
Mee PHI a WMST

PHIL 460-3. Theory of Film. Re a be ee
ca e a ca
c ce a e e b e a a Mee
PHI

PHIL 491-3. Systematic Philosophy. A
fa e ca be e
e Mee PHI

PHIL 493-3. Advanced Topics in Philosophy. De a e
e a a fa e ca c a e f e
f c c e e b e e a
e a e a c e ffe a a b e c e e P e
P a c e f c T c e
Mee PHI a WMST

PHIL 495-3. Senior Seminar and Thesis. A e e a c
ec ec e e e e faF e
e a e a fac e be T e c f e e e a c
c e b e e c a e ec
a Re e fa a A e
f ASO a C ca e e e O e
e

PHIL 504-3. Continental Philosophy: Early 20th Century. C ca a a fea ce
ca e e c a e e
c a a e e e c e a e
a e ca a ca
e a a e e e P e e c e
Mee PHI

PHIL 506-3. Continental Philosophy: Mid-20th Century.
A e e e a a f e a E ea
ca e e f e ce
c e e e e e a c a
c a e a e e a e
ca a ca e f e e
P e e c e Mee PHI

PHIL 507-3. Existentialism. Ma e e fe e a
f e e a a Ne c e
c ce e a Ja e He e e
Sa e a Ca Mee PHI

PHIL 508-3. Continental Philosophy: Late 20th Century. A e e e a a f a e c
a l aa Dee e Ba a Habe a F ca a
De a a f a e e c a c ca e

PHIL 510-3. American Pragmatism. A a a
a e ca fA e ca a c b
e e c a fe a a a A c e a e
f a a e e ce a ce e a a
a a Mee PHI

PHIL 514-3. Philosophy, Globalization, and Sustainability. T e ca ca ce fec
f e ab a e e a e c A ca f
e e a e c c e a e b e
f e e e a e be f e a a f
a e c e a e e a e e c e c e
fc be e ba f e c a Pe Pe
c e Mee PHI

PHIL 515-3. Ethical Theory. T e be f a a
ca fe ca a a c a e e c e
ea e f e fe c Pe PHI PHI
PHI Mee PHI

PHIL 516-3. Business and Management Ethics.
De e eac e a ecae ee ca
c f e ec a ce c
b e aae aee ae e ca e e
Mee PHI

PHIL 517-3. Health Care Ethics. E ca e
f eae ca ea a e ac f
e ca ec T c c e f e c e
a e e e a a bec ec ca
a a f e ca e ce e e c cee

e ace a e e c e ee Mee
PHI

PHIL 518-3. Theories of Knowledge. C e a f
a e b ca ca a c e a
a e c b e e a a f e a e
a c f e e Mee PHI

PHIL 520-3. Consciousness. C c e a
e e e e a af a e a c c e
ce ce c e ce ce a T c e
ce e e f e ece e ce c
e f c c e a e e f e
ca be e b c c e Mee
PHI

PHIL 524-3. Selected Topics in Social Theory. I e
e a a fa a c a e c e a ca
e c a c ca e eFa f c
Ma a Ma ec c e c ac ee
ec e a ec c Va a b e
c e Mee PHI

PHIL 526-3. Philosophy of Law. C e a f
a e f e a e fa e ce
a ea e c e Ea a f e
cc e a e ea affec e a
c e a ce e Mee PHI

PHIL 530-3. Philosophy of the Mind. C e a f
e ce a b e e f c
e b be e e e f e
fee a e e a e a c
fc ce c a ac e e e e
e e c Mee PHI

PHIL 535-3. Analytic Philosophy. A a c P
a e e ec be b a a c a e a
a e f T c e e a e a
e a a ea e e e f e
ce e f e a a ca e
a be a ec e ce f e a e
Mee PHI

PHIL 540-3. Philosophy of Science. A c e e a a
f e e a c
f ce ce A e be e c e a
eba e c c a e e f ce ce
e f ce c e e e c f ce c
c e a e a e e a f ce ce Mee
PHI

PHIL 543-3. Logical Theory. A f e
f ca a a ce c T c e a e
c e a c a a e c ec e
c f c e a c a a a c e e
e P e PHI Mee PHI

PHIL 544-3. Symbolic Logic. A e f e ea
a ec e f e b c c c
e e a f a e be e e a a
a a e a c f e f a f
a e ca e e Mee PHI

PHIL 546-3. Theories of Human Nature. A e a a
f e ea f a a e f a
e ec e c G e e e a a
a a e e a a a a e e

PHIL 549-3. Philosophy of Language. A ca
e f e e e fa a e
T c c e e c e e e a efe e ce e
a e e f a a a e
ec c a ca a e e f efe e ce
A c e e c e F e e H e De Sa e
W e e A De a a e Mee
PHI

PHIL 560-3. Theory of Film. Re a be ee
ca e a ca
c ce a e e b e a a P e A
BA a AS e Mee PHI

PHIL 591-3. Systematic Philosophy. A
fa e ca be e e
e Va a b e c e Mee PHI

PHIL 593-1 to 3. Advanced Topics in Philosophy. De a e e a a fa eca ca e f e f c c e e b e e a e a e a c e ffe Va abe c e Pe C e f c Mee PHI a WMST

PHIL 940-1 to 3. Independent Study in Philosophy: Undergraduate. P e P c e ffac e e

PHIL 950-1 to 3.Independent Study in Philosophy: Graduate. I e e e a f a ace e c a c ec a a a ec e c e e e e e f e bec f eca e e S bec a e c e a a a e e a e a e e e f eac e Pe C e f c

PHYSICS

PHYS 500-0.5 to 3. Physics for Teachers. De e f ac c eac e e e e e a c P c c e e ea e ec c a e e a bee e ece e a ce c a e e a e e e C e a c e ab a e e e ce Pe A bac e e e f a acc e e

PHYS 501-3. Astronomy Principles in the Classroom. E a e f a e a c ce fa a e a e a e e ca T e c e e f e a c eac e C a e f c e a e aca e c a Mee CURR

PHYS 503-3. Mathematical Methods in Physics. S e f c a ca a e a ca c l c e c e a a b e e b a a e be Gee f c a ce ec ace a e e f e ca e f ca be Pe PES e a e

PHYS 515-3. Solid State Laboratory. A a c e ab e e a e e ff a e a e e f l c e c ac a ec e O e e c e a e a b e e e e Mee PES

PHYS 516-1. Thin Films Laboratory. I c e a c a a c e a Fac e c e e a a e A e e e c ec c e e a ca e e c c C e PHYS

PHYS 520-3. Computational Physics. A c e f c b e ac e T c c e e c a a c c a c a f e e c a e c e e c c a e M e C a e a e a c a e c a c a a e Pe C S e a e

PHYS 541-3. Statistical Mechanics. A c e b a c a e c a c T c c e c a c a B a a c Fe D a c a B e E e a c a f c a e e b e A c e a e a c a e a a e

PHYS 542-3. Physics of Materials. A c e c f a e a T c c e c a a a a efec a e a a a e a f a a ff e c a c a e e a e e c a e e

PHYS 546-3. Introduction to Solid State Physics. T e f c c a c e a ff ac e a e e f a e e f e a ba c e e c c e a e c c c e c c a a e Mee PES

PHYS 548-3. Surface and Interface Physics. A c e a e c f face a e face c c a e a c a e e c ca e e Ga face e ac a c a ac e a e c e a be e a e

PHYS 549-3 to 4. Physics of Thin Films. A c b e e c e a b c e c e c e c e f e c a c a a c e a f a e c c e e e e e a b e e c e a a A e e c c e e a a ca e e c c Offe e a a c e e c e e e a e a b Mee PES

PHYS 560-3. Special and General Relativity. I e a e e e e c a a e e e a b a f E e T e f Rea T e c c e ff e a a c e e c e S e c a Rea T e c c e f c e a c e e e e e a e a e a c f e O e a a e e P e PES Mee PES

PHYS 572-3. Stellar Structure and Evolution. Ba c e a a a a c H R a a P c e f e a c e c e e e e a a e e a S e a f a a e c a c b e c

PHYS 590-0.5 to 4. Special Topics for Teachers. Va c c a a e e c e c e f e e e a c e C a e e f c e a e a c a c a

PHYS 595-1 to 6. Special Topics. Va c c e e c e c e a a e a e e

PHYS 596-1 to 6. Special Topics. Va c c a b e e a a f e a e c f e a e c c e effec e f a c e a e c e c c c

PHYS 621-3. Theoretical Mechanics. Va a a c e a a e e a Ha e a fa b e a c e c a c a f a e c e c a c a c a a Ha Jac b e

PHYS 625-3. Introduction to Quantum Mechanics. Q a e e a e a c a c a c Sc e e a He e b e c e a c a b e a a e c e a a e c a e e Pa e a a e e a c a e e a a c a c e e a e c a a Pe PES

PHYS 626-3. Quantum Mechanics II. Q a e e a e a c a c a c Sc e e a He e b e c e a c a b e a a e c e a a e c a e e Pa e a a e e a c a e e a c e e a e c a a

PHYS 631-3. Electromagnetic Theory I. A c a f Ma e e a e e c a c a a e a c e e f a e c e a a Pe PES PES e a e

PHYS 632-3. Electromagnetic Theory II. E e c a e e a c a f Ma e e a e e c a e c a e a a a f a e a e e e f e a c e e c a c a a e Pe PHYS e a e

PHYS 695-3. Special Topics in Physics. Va c c a e a e c a c c a c face c a e

PHYS 700-1 to 6. Masters Thesis. A a e b e e e c a e e e a c e e e c ffac e b e l e e c e e e c e e e e a c a a e e e e W f a a a e e e c e

PHYS 950-1 to 6. Independent Study: Graduate.

PHYS 999-0. Candidate for Degree.

PHYSICS AND ENVIRONMENTAL SCIENCE

PES 100-3. Physics in Everyday Life. A a e a ca e e f c a affec e e a fe T c be c e a e b a a c a e b a e ea e a e c c ba a c ac a c e ca e a e e e a ca f c Rec e e f e c e c e a e a c bac A e f AS Na a Sc e c e a e a e e e

PES 101-4. Physics for Life Science I. Ge e a c a e a a ca fe c e c e a ea fe Pe T ea f c a eba e ae

PES 102-4. Physics For Life Science II. Ge e a c a e a a ca fe c e c e a ea fe Pe PES

PES 104-3. Physics in Science Fiction. A f e c a e c cc c e c e e T c c ea e e a c fc f fe e a e b a E e e fea a e e c a e c e e a A e f AS Na a Sc e c e a e a e e e

PES 105-3. General Astronomy I. T e e a e f e a a e a a a a e e e a e A e f AS Na a Sc e c e a e a e e e e GT SC

PES 106-3. General Astronomy II. T e e a e f e a a e a aa e bac e a a c a a e e e a e e A e f AS Na a Sc e c e a e a e e e GT SC

PES 108-3. Science on the Nanoscale. E e a ca e c e c e a ca ec e ca e f ba c a c e a a ec e e e c e c e f a e a e a Afe a c c c e f a c a ca c b a e e e bee a e A e f AS Na a Sc e c e a e a e e e

PES 109-1. General Astronomy Laboratory I. GT SC A e f e e e a e e c e ea e e e e e C e c c a c e a a e e c e b e a a e a c e ea e e a e a ea ea A e f AS Na a Sc e c e a e a e e e

PES 110-1. General Astronomy Laboratory II. GT SC A e f e e e a e e c e ea e e e e C e c c a c e a a e e c e b e a eb a a aa ca ca a c e ea e e e a ec c A e f AS Na a Sc e c e a e a e e e

PES 111-4. General Physics I. R ca c e e c e c a ca c f c e c e a e e e l c e ea e e e ec e e ee e a c e a c a e e ea a a a e a f b e a c e b c a a a C e MATH

PES 112-4. General Physics II. T c c e e c e e e c a c e e c c e Ga a e e c e a ca a c a e e c c e a e a c e e a c e A e e a Fa a a a c a c e c a a e e c a e c a e Pe PES C e MATH

PES 114-1. Introduction to Physics Laboratory. E e e e e a a e e f c c e e c a c a c T b e a e c c e PES T ab e e b be a e f e e e c e f a a a c e c e abc e e a a c e c e e e e O e PES e A e f AS Na a Sc e c e a e a e e e

PES 115-1. General Physics Lab I Algebra Based.
De e be a e PES E e e
ec a c a a caa a f e PES
a PES e a e a e ab PES

PES 116-1. Advanced Physics Lab I. A a ce
cac ba e ab c e a f e a c
ec a c a f ec e Ne
a C e a fE e R a a M
De e be a e c c e PES PES

PES 117-1. Advanced Physics Lab I Honors Section.
A a ce cac ba e ab c e a f e a
c ec a c a f ec e
Ne a C e a fE e R a a
M T be a e c c e PES H
P c S e be e c a e e a
a ac e a ce ffac c O e
PES e

PES 121-3. Introduction to Physical Science. A
e a e e e a f eba cc ce f c
a c e f ce ce a T c c e
ea a ca ec a
c e c e ca eac ac a ba e a a
ac Pe T ea f c a e a c
Mee CHEM

PES 124-1. Physical Science Laboratory. A ab a
acc a CHEM PES l c e e e e
ec a c ea eec c c e ca eac
c e ac ba e c e a eac
e c Mee CHEM

PES 131-3. A Lab of Her Own – Science and Women.
I c a a ce cea e f
ce ce a l f c e e a c a
b ef a f ce cc ce a
e e e e f e M e c ce f
ce cea a e a c a e a e
c b e e e be e e e T
c e a ffe afe c e f e a a
e f ce ce A e f AS Na a Sc e ce
a e a e e e Mee PHI a WMST

PES 150-3. Introduction to Energy Science I. B ef
f a e e e e a e e c ce
a f a e a e f f e a e
a e e c c e a a e e a effec
f e e c a e Mee ENSC

PES 151-3. Introduction to Energy Science II. B ef
f a e e e e a e e c ce
a f a e a e a be a e e
e e e a e a e e e a ac e
e e a effec f e e c a e a
a e a a e e Mee ENSC

PES 160-3. Introductory Solar Energy. B ef f
a a e e e e a e e c ce
a f a e a e ba c e a f e
f a e a f e a e e a fe a
a e e c c a a ca f a c e
c c fe e c e a a eb
ac e Mee ENSC

PES 162-1. Solar Energy Laboratory. Ha ab
ca e a e e e a e c e a e
ce c e a e a e e a
a e a b a e a ac e a e e
e Pe C e PES Mee ENSC

PES 171-4. Honors Physics I. De e f c
a e e e e e c
T c c e e c e c a ca e c a c a e c a
e a l a cac e e c e T e
a e a ce f e c a c a a c a e e c e
b a A e f AS Na a Sc e ce a e a
e e e

PES 172-4. Honors Physics II. De e f c
a e e e e e c T
e c e e e f c c e e e c c
a a e l a cac e e c e
T e a e a ce f e c a c a a c a e

ec e b a A e f AS Na a Sc e ce
a e a e e e

PES 195-1 to 3. Special Topics. C e c e
b e c f c e e e a e e b a See
Sc e e f C e f e

PES 197-1 to 3. Special Topics. C e c e
b e c f c e e e a e e b a See
c e e f c e f e

PES 213-3. General Physics III. A c a f PES
T c c e e c e e c a c a e
e e a e e a a e a f e a c
e c e f a e e a e e c a
f e a c e e c a c e f e e c e
ff a c a a c Pe PES
C e MATH

PES 215-1. Physics Lab II Algebra Based. De e
be a e PES C e a a c e e c
a c ACa ACc c a e c e PES a
PES e a e a e ab PES

PES 216-1. Advanced Physics Lab II. A a ce
cac ba e ab c e a f e a c
e e c a a e a f e e c e
c c a a ACc c a e De e
be a e c c e PES PES

PES 250-3. Energy Fundamentals. Pa e e a
f e f a e e e e a e e c
ce a f a e a e ef c e c fe e
c e e a a fe c e c a e e c c
a e a e e e ce e e a a ca
e e c e a c e a a eb
ac e T e c e e e f ce ce
a a a e e e e fcac a
e ca c e ce Mee ENSC

PES 306-3. Astrophysics. A c a c a e a
c a a ce c e c e a c e f a a
a e e e a a e a c a fa
T e e f e a e c a e e a e a
a ce a e a e a e e
He R e a a Pe PES

PES 313-3. Modern Physics. S e c a e a
e e e f a e a c e a a c c e
Sc e e a e e a e e a a c
a e c a e c a c e a e a
ba e Pe PES

PES 315-2. Modern Physics Laboratory. Tea c e e
e a c e e f e e e a c a a
a a c e e e c c c a c a c
e e c c a e e e f a a c e
e c a c

PES 317-2. Instrumentation Laboratory I. De a
e a f e c e f e c e e e
I e f a c c e e a e e e
Re e a e e f ABVIEW Pe PES

PES 318-2. Instrumentation Laboratory II. De a
e a f e c e f e c e e e
I e f a c c e e a e e e
Re e a e e f ABVIEW Pe PES

PES 321-3. Classical Mechanics I. Ne a e c a
c c a a a e a Ha e a
c e a f c e c a e a b
E e c a a a c a c Pe PES
Pe C e MATH

PES 325-3. Mathematical Methods of Physics and Engineering. S e f a e a c a e a e a
a f a a c e c a e e e c e
I c e e c c a c a a a ffe e a e a
e c a f c F e a a a e e a e f c
c a e D a c e a f c

PES 331-3. Principles of Electricity and Magnetism.
E e e f e a e a c a e f e e c c a
a e c e e c a c a e a c
a e e a e c a e a e a c e e
a c e e c a e c e e a a e
Pe PES a MATH

PES 332-3. Principles of Electricity and Magnetism II. C a f PES E e e f e a
e a c a e f e e c c a a e c
e e c a c a e a c a e e a e c
a a e a c e e a a c
e e c a e c e a e Pe PES

PES 341-3. Thermodynamics and Statistical Mechanics. S a c a e c a c a e a c
c c c a e a c a e a c
c a c a e a c e a c a
e e Re a f a c a e c a c
e a c Pe PES

PES 365-3. Nuclear Physics and Energy Technology.
N c e a c e a e c e a e a c
a f E a c e a e c
a e e e a a c Pe PES

PES 367-3. Wind Energy. A e f e e c
f e e c e c c a c a e c
e e e c a e e e e a a e e
e c e a e a a e c

PES 395-1 to 3. Special Topics. C e c e
b e c f c e e e a e e b a See
c e e f c e f e

PES 397-1 TO 3. Special Topics. C e c e
b e c f c e e e a e e b a See
c e e f c e f e Pe PES

PES 415-2. Solid State Laboratory. A a ce ab a
e e a e e f f a e a e e f
l c e c a c a c e c
ec e O e e c e a e a b a e e
e e Pe PES a Mee PHYS

PES 416-1. Thin Films Laboratory. I c
e a c a a c e a Fac e c e
e a a e A e e e c e c c
e e a a c a e e c c c C e
PES

PES 425-3. Quantum Mechanics. A c a e e a
e f a e c a c c e Sc e
a a e e c a c e a a a a c e
e e a a a e a Pe
PES

PES 426-3. Quantum Mechanics II. C a f PES
e e e e a e e e e e e b a
e e e W Ba a a a a c e
a c a e Pe PES

PES 442-3. Physics of Materials. A c e
c f a e a T c c e c a a
a e f e c a a e a a a e a f a f
f e c a c a e e a e e c a e e
Pe PES

PES 446-3. Solid State Physics. T e f
c c a c e a ff a c
e a e e e f a e e f e a
b a c e e c c e a
e c c c e c c a a
e Pe PES Mee PHYS

PES 448-3. Surface and Interface Physics. A c
e a e c f face a e face
c c a e a c a e e c a
e e Ga face e a c a c a a e c e a
e c e a b e e a e Pe PES

PES 449-3 to 4. Physics of Thin Films. A c b e
e c e a b c e c e c e e f e
c a c a a c e a f a e
c c e e e e e a b e e
c e e a a A e e c c e e
a c a e e c c c Offe e a c e
e c e c e a e a b Pe PES
Mee PHYS

PES 451-3. Optics. A a a c e e a a e e a
e f c e e c a c a a a
c Pe PES a e e PES

PES 460-3. Special and General Relativity. I e ae e e e c a a e e e a b a f E e Te fRea Tec ce ff e a ace e ce Seca Rea Te c ce fc e ace e e e e e a e a c fe Oe a e Pe PES Mee PHYS

PES 472-3. Stellar Structure and Evolution. Ba c e a a a c H R a a P c e f e a c e c e e a a e e a Se a f a a e c ac b e c Pe PES a PES

PES 481-2. Senior Physics Seminar. P e e a e c S e e e a e a e f c c c a a f a e e a b e e a c e e a c c S e a e b a fac a e e e a efe e f c a e a e f c A e f AS Oa C ca e e e Pe Se a c c e f c

PES 485-3. Senior Project. S eca e e e a e e c a e e a c e c a e f c c e a e e e c e P e c b e c c c c a e e e a e c b e e e e a e e f c e e e e a e e a c a e a e e a c a e a e a e a e e f c e e c e e e c a e e a c A e e e e Pe Se a e a e a e f c

PES 930-1 to 3. Independent Study for Physics, Undergraduate. P e C e f c

POLITICAL SCIENCE

P SC 101-3. Introduction to Global Politics. I c a a f e c e a e a a e a a a e a a e c C e a b e a e e e a c a f e a e a b e e c e f e a a c a a e e e e a b e a A e f AS S ca Sc e c e a G b a A a e e e e e

P SC 110-3. The American Political System. A e e a c e A e c a c a e e a e e e a a e e e a b a c e f e e f a a f a c a c e e a b e a Re e f a a N e e a e a e b e c e A e c a e e A e f AS S ca Sc e c e a e a e e e GT SS

P SC 210-3. Politics and Policy in State and Local Communities. F c e e e a a e a c a e e e e c face face a e e c a e c e a affec a e Te c a e a e a c c e e b e c e c a b a e e e e f a e a e e c e a e f c e A e f AS S ca Sc e c e a e a e e e

P SC 250-3. Introduction to Political Inquiry. A c e b a c e a f e a c c a c e c e T c c e c f e e c e a a a b e f c a e a c e f c a a a e e e e f e a c e e a c e a e e c f c a e a c T e c e b e a e e e e a e c e e a c e e e c e

P SC 301-3. Women in Politics. A e a a f e e f e A e c a c T c c e a c a e e c e f e c a c a c e c a e e a a c e f e e e a a f e c a a e f a a e a e c a b e a Mee WMST

P SC 303-3. Political Parties. Pa c e U e Sa e Na e c e a a a f c f c a a e A a f c a b e a

P SC 305-3. Race and Ethnicity in American Politics. A e a a f e e f U S e c A e c a c f e e e c e f e e e e T c c e c a a c e a e a e c e e c a c a c e e e a e a f U S e c e e e a f a c e e c a c a e e e a effec f e c a e e e a e ac f e e e e c a e Mee EST

P SC 311-3. Emerging Nations. A a f e e e a b e c a a c fec c c a c a a e e a a e b a e e f a e A a c e e a e c e

P SC 321-3. Western European Political Systems. G e e a c f e e c e c e f c e a a e e E e e a B a Fa c e Ge a a c e a e

P SC 322-3. Eastern European Political Systems. E a e e e c a c e f Ea e E e e e c e a e c e a a e Ea e E e a c f WWI e e f 8 a c e a f e b e a a a e f e c a a

P SC 330-3. The Bureaucrats. Na a a e a c a b c e c e c a e e e e U e Sa e a e e c e f e c e H e b e a c a c a e b c c A e f AS S ca Sc e c e a e a e e e

P SC 348-3 to 6. Legislative Internship. T e e a e a c e e e a e e a a e e a b Wa e a e b e S e a e e e e a e a e a f c e e Ca f De e C e e e e e Pe 8 c GPA c e f c

P SC 398-3 to 6. Internship: Public Administration. T e e a e e a c e a b c a e c e e a a e e e f e a a e f c e Pe Oe e e f aca e c e c a c e f e c

P SC 402-3. The American Congress. A e f e e e e a c c e a e f e c e a C e Pa c a a e a e f a a a a a c a e

P SC 404-3. Political Interest Groups. Na e c e a a a f c f e e Aa f e e c

P SC 406-3. State Political Systems. Na a a e a e a e e a c a e e e a e e e c e a c a c e e a be a a e a a a e a a a e a c e a a e e c e f e f e a e S e c a a e e e e e f C a

P SC 407-3. Urban Politics. P c a a c a e c e b a a e a e e c f b a e a e e a f e c a e e a a c a Mee PAD

P SC 408-3. US Electoral Process. E a e c a a a a e a e e f a e e e a e e a e e e c a c e e U e Sa e e c a a e e e a a a c e c US e e c a e a c e Pe PSC

P SC 413-3. Latin-American Political System. G e e a c f e e c e c e f a A e c a C a e e e a a c c e P c a a e e e a c c Te e a be e e c a b e a c a a c a e e Mee PSC

P SC 415-3. United States Space Policy. E a a f c a c e a f e e c f e U S c a a c e a Mee PSC

P SC 418-3. Gender in International Politics. a e f e e a e a a e a a c e C e a a a a e effec e e e a a f ab e effec f e f a e a e a a a f c e a e a e c e e Mee WMST 8

P SC 421-3. International Politics. T e e f a a a e c c e f a a e e a f f e c e c c f a c e e f a e a c a e b e a f e e e e e b e f e a c e G e a e a e f e e a a c a e e e a a e a e e e e f e a a e A e f AS S ca Sc e c e a G b a A a e e e e e Pe PSC Mee PSC

P SC 422-3. Comparative Politics. A a c e c e e a a c a e e c a c e a b a a e f c a e c c a c a e e Ca e e a a a a a f a e a a e a c e e a c a e e a a c a a e f a e a e c e e a a c e e Pe PSC

P SC 423-3. The United States in World Politics. T e f a a a b e c e a e f U S F e c Te e c a e e a b e f a a U S P c e c a e e

P SC 424-3. Russian Foreign Policy. F e c f e R a Fe e a ac e a a c a e a e c e e e

P SC 425-3. International Law. A e f b c e a a a a e c a e a c e f e a a a a e f a c a a e a e a a e a e e a e e f a a e a f a e Mee PAD 8 SEC

P SC 426-3. International Organization. A c a a e a a f e e a a e e a e a a a a Se c a a e a e U e Na a c e a e a a a a c a e E e a c NATO a e a a f A e c a a e

P SC 427-3. Latin America in World Politics. Ba c e e a A e c a e a a e a U e Sa e a A e c a e a c e F e c f a a a a A e c a e b c F e PSC N e e a e a e PSC

P SC 428-3. International Political Economy. O e e f e c a e c e e c a e e WWII e Te c e a a f e c e e f a a a e e a a c a e c e a f e a e c a e e e e a a e c c e a Mee ECON 8

P SC 429-3. International Environmental Politics. S f e a c e e a a c e a c e e a b e f a a b a a e E a a f e e c a f a e e c e e e a c e a a a f a b e f a c a e a e e e a e e a c Mee PSC

P SC 432-3. Public Administration. R e f a a e e e e A e c a b c a a a b e a a e c e f a a e e

P SC 434-3. National Security Organization and Policy Making. A a f e e e a c e a e a e c a c e e f A e c a a a e c a e c a a a c

P SC 435-3. Environmental Policies and Administration. Re ce eA e ca ec c e a fc a ca a e a c fac e e e e f e ce c a a ce e a a f a a a e e e f a a e ce

P SC 439-3. The Presidency. A e a a f e ca f c a c a a caa e c f e e e c A a a ca c a f e e e c e e e c e e

P SC 440-3. Government and Society. E a e e a e a e e e ca e f e e ce e a ce e U e Sa e E a ace ef a e e ca a a f a ce Pe PSC

P SC 442-3. Political Ideas. Ma c e f ca f a ce e e e e a ee e f ca e f Pa a A e ce H bbe R ea a Ma c e a e e f e e f ef

P SC 445-3. American Political Thought. H a e e e fA e ca ca e e a ea f c a e e e

P SC 446-3. Administrative Law. Ge e a a e f a a e a e fa a e ac a e f ce e a a f e a a a ca a a a e e ce

P SC 447-3. Introduction to Constitutional Law. R e f e S e e C e e e f c e f c a a be e c ce f ca e e Fe e a c f e fe e a c e a a f e e a e e c e ce e e c e f e e a e c e a e e a c e f e a e c e a e e a f e c A e f AS S ca Sc e ce a e a e e e

P SC 448-3. The Constitution and Individual Rights. Na e a c e f A e ca c a c e a e e e b e U S S e e c e a e a e e f e f e e e c e e B f R a e C Wa a e e

P SC 449-3. The Judicial System. E a a f e c a ac e e a e ce a e e c e a e e e a e ca ce

P SC 450-3. Senior Research Seminar. A c e e e e ec e Se e ca c e ce a e e a c ec T e e a f ec e be e e e e b e e f e e a c c a e c e a e e Ma a e be e e f a e Re e a c e be e e e a a c e ca Re e f a a

P SC 451-3. Defendant's Constitutional Rights. Na e a c e f A e ca c a c e a e e e b e U e Sa e S e e C e a abe a c e a c a e e a be e a ef c a e ce f a e e a b c a c e a b ba a c e a a e

P SC 452-3. Model Organization of American States (MOAS). T e c e a a e e e e e a a a e e c f e M e O a a f A e ca Sa e f U e e MOAS Wa D C S e e a ab e e c e a e a f e MOAS b e e e a e be a e e l e A e ca e e a b a e a f e l e a a P c a e a c ce f a c a e a a a a Pe A ca a c e f c

P SC 453-3. Model United Nations. C e a a e e e e a a a e e c f e M e U e Na MUN c e e c fe e ce T e c e ca a e e e f a c a e a S e e a ab e e c e a e a f e U e Na Pe c c e

P SC 498-1 to 3. Special Problems in Political Science. A f e ca be e e a ca ce ce a b a a e e e a c a be a e a Eac e e e a e c e ffe e a ffe e be f ac e

P SC 515-3. United States Space Policy. E a a f ca c e a f e e c f e U S c a ace a Mee P SC

P SC 529-3. International Environmental Politics. S f e a c e e a a c eac e e a be fa a b a a e E a a f e e ca fa e e ce e e e ac e a a a fa be f a ca e a e e a a e e a c Mee P SC

P SC 598-3. Special Topics. Eac e e e a e e a ffe e a ffe e a e f ca c e ce be e f c f e e a a a

P SC 940-1 to 3. Independent Study in Political Science. I e e e a f a ace e c a c ec a a a ec e c e e e e e e f e be c f e ca e e S be c a e c e a a a e e a e a e e e e f eac e e Pe Se a e e e f ca c e ce a c e f c

P SC 948-3 to 6. Prelaw Internship. S e a e e a e c ce e ac ce fa e a a f ce e e e a f a e e e a a f ce c e c b c efe e a a e e a f ce e a a e c e ac ce fa e a a f ce Pe C e f c ab e a e a e c e SAT a Se a

PSYCHOLOGY

PSY 100-4. General Psychology. A c e ce c f be a C e c a a ca J a e ca ba e f be a be a a a ce e a e e l c e c c e a e a fc ca e e e a e e e a ab a a ca A e f AS S ca Sc e ce a e a e e

PSY 110-1. The Profession of Psychology. E e e fe f c c ca e e a ee e be cce f a fe a e c a e b e Pe C e PSY

PSY 210-4. Introduction to Psychological Statistics. De c e a c c a fe e c b ea e f ce a e e c a a ab l f e e a a c c a c e a T e c a e e a a a f a a ce c fac e a e c a e Pe PSY a Ma e a e

PSY 211-4. Introduction to Psychological Research and Measurement. A c e e a c e e c c e e e a e a e e e c e a e e a c a e e a e Me f e a c ca c ce a e a e e a b a a f e e a e e a e c e S e e e APA f a Pe PSY Pe C e ENG

PSY 212-1. Two-Factor Analysis of Variance. C e e c a a e e a f e fac a a f a a c e a c e c a a e f e a a e a c effec Pe l c a c ca ce

PSY 230-3. Psychology of Adjustment. A e fc ce bea e c e e f a c caa e e a e c ce e a c a be e a a e a e

PSY 245-3. Social Psychology of Social Problems. A e a a f ca c ca a ec fa a e f ca e a be c e a ce l e a c e e e e ce ace a IQ e c f a e e e a ac a a c ca e a e e a c e e a e a ea be c e e a e ce e e a ca be a a a be Pe PSY Mee WMST

PSY 300-3. Honors Seminar I. E a f c e a e e ce ce f c c c e e e e e a c ec e e e f c fac e be O e e f a acce e e De a e f P c a Pe PSY PSY a a c e f c e e

PSY 303-1 to 3. Undergraduate Practicum. S e a c a e e e e ce e e a c ac e Pe C e f c

PSY 306-3. Psychology and Health. I c c e e a ca f c ca c e e e a ce e f ca e a Ca e a e e e a f a e ac a c c e e a be a c a e a Pe PSY

PSY 310-4. Statistical Models in Psychology. T e e f a ca e e c ca e e a c l c e e fe a fe e ce e e e a e e fa a ce a e e a SPSS a ca Pe PSY a PSY c e

PSY 313-3. Learning and Cognition. S e fa a a a e e fea a a c c e a e e f a c c e a f a ce Pe PSY

PSY 314-4. Cognitive Psychology. A e f e c e a ea f a c a e ea e be a ec a H e e a e e a c f e a e c e a e c e Pe PSY a PSY

PSY 315-3. Psychology of Motivation. P c ca a ca fac e a f be a Pe PSY

PSY 320-4. Psychology of Learning. C e e e ea e e fea A e a be ace e e e ca f a f e c a a e ece a f ea a e e P ac ca a ca fea c e bec e e Pe PSY a PSY

PSY 321-3. Human Sexuality. C e b a e f e e c a e f a e a T e c a ac e f e e ec e f e c be a c e a a Pe PSY

PSY 324-3. Psychology of Personality. A e e f a e e fe a c c a c be a c a c a e e a a ac e Pe PSY

PSY 326-4. Comparative Psychology. Be a f a a f a e a e ec e P c e fbe a a a e fa a ece c a Pe PSY c e f c

PSY 327-4. Introduction to Biopsychology. A b a e c e eb ca ba f be a A a a ce f e e e ec a e a eba e c a e e c a e c e a e a e f be a A e f AS Na a Sc e ce a ea e e e Pe PSY c e f c

PSY 328-3. Abnormal Psychology. T e ca ca a ea e fab a be a Pe PSY

PSY 340-3. Social Psychology. S e fc e a ca c ca e a e ea c A a f ba c c e e a ca be a Pe PSY

PSY 345-3. Psychology of Diversity. A ba c e f a ea e f c a a e e e ea aaf e ea be c Raca a e c e aee a e b e e e ea e e a efe ece a SES a bee e Pe PSY

PSY 348-1 to 4. Selected Topics in Psychology. S bec a e ca e e e a c a e ffe Te cf a e e e e be ec e e Sc e e fC e Ma be e eae f ce Pe PSY

PSY 351-3. Psychology of Aging. A e e f e c c e c ca ea ce a e e c ea c ac e f a e a a ae fe e a e a e c ef e Pe PSY Mee GRNT

PSY 355-3. Psychology of Women. A e ffe ae c a e f e ffe e ce a e a f e e a ee a ffe ae e a a aa a e a e fe e e c ea a e a Pe PSY

PSY 362-3. Developmental Psychology. S e f a e e e f c e ea e a ca c e e a a c ca e e e Pe PSY

PSY 364-3. Psychology of the Exceptional Child. T e c e e c e ea a c e ffe e ce be a a a e a e a e a ca ffe e ce E a e a ea e a e e f a e f ffe e e ca e ec e Pe PSY

PSY 365-3. Clinical Neuropsychology. O a a f c a f c f e a ba ac e fe a Ne c caa e e ec e Re e be a a c e a e a c a e a a e f ea e a a Pe PSY c e f c

PSY 366-3. Service-Learning Internship. A a e ce ea c e e e e ec a ea be e A a ce be e ca ee Pe C e f c

PSY 371-3. Survey of Clinical Psychology. A e f ea ea fc ca c c c c a c ca a e e ea e a c e e Pe PSY

PSY 372-3. Community Psychology and Mental Health. Fc e e a a a c a e e f e a ea e ce ec a e ec e f e f e a ea eae e ce e e fc fac e c fe a e a ec e f c ca e Pe PSY a PSY 8

PSY 384-1. SPSS and other Statistical Packages. T e e f a ca ac ae f ae e e a a e aaa e eec a e fa ae a ca a a e f e aa Pe C e PSY e ae

PSY 385-3. Principles of Psychological Testing. A c caa a caaa f e ce e c c a e fe fab a e a Pe PSY

PSY 386-3. Theories of Psychotherapy. A c f e e e a ae e e e a ec e f c ea Va a ac e c ea bee a e e c a a be a ca a ce e a Pe PSY a PSY 8

PSY 393-3. Industrial/Organizational Psychology. A c e ce c fe e a a E a e a e e a a a a e e e e be f a be a a Pe PSY

PSY 394-3. Psychology and the Law. A c e c e e eece c ea e eac f c a e a Pe PSY

PSY 395-3. Applied Psychology. E a e e a ca f c ca e eac a e ea e a a abe a ea a ea cae e e a e a e ca a e a bc c Pe PSY

PSY 400-1 to 3. Honors Seminar II. C a f H Se a l PSY S e c e e e e e eac ec a ee e e a c a Pe PSY PSY PSY PSY a c e f c O e e f a acce e De f P c a

PSY 405-3 to 4. Physiological Psychology. T e ca e c e ca a ca ba e f be a T c c e e ca b a e f e a c c e ee ea a e Pe PSY c e f c lfc e a e f ce e ab e ee e e

PSY 406-3. Seminar in Health Psychology. I e f c eece c ea c T c a Pe PSY a PSY PSY 8

PSY 411-3. Seminar in Methodology. I e f c eece c e a c a ea e e T c a Pe PSY a PSY

PSY 412-3. Human Memory. P c ca e eac a e e ab e l f c be e e ab e f a f c a Me f c a c e be fe e f e eac e e e a f c be e a e ca S e ca f e be c e Pe PSY

PSY 413-3. Seminar in Learning and Cognition. I e f c eece c ea a c T c a Pe PSY a PSY PSY PSY

PSY 417-3 to 4. Sensation and Perception. I c c ca ca e ca e e ecae a a a a ece a e e a Oe ab e ee e e fc e a e f f ce Pe PSY a PSY c e f c

PSY 419-3. Conditioning: Principles and Application. P c e fca caa ea c a a ea a Pee a f e e ca ba fbe a ca Oe ab e e fc e a e f ce Pe PSY

PSY 421-1 to 3. Practicum in Experimental Psychology. ab a f a a ce c a E a be a ec Pe C e f c

PSY 422-3. Introduction to Language Behavior. I c e e a c ca e e e cae a a c ca a ea f a a e Pe f PSY c e f c

PSY 424-3. Seminar in Psychology of Personality. I e f c eece c e a T c a Pe PSY a PSY

PSY 427-3. Seminar in Biopsychology. I e f c eece c b c T c a Pe PSY a PSY

PSY 428-3. Seminar in Abnormal Psychology. I e f c eece c ab a c T c a Pe PSY a PSY 8

PSY 440-3. Seminar in Social Psychology. I e f c eece c ca c T c a Pe PSY a PSY

PSY 443-3. Seminar in Social Issues. I e f c ca e T c a Pe PSY PSY

PSY 444-3. Drugs and Behavior. A be a a a a f e effec f c ac ec c a e e a a a e e a a c c a c ae a c e e c Pe e a f e b ca e f affec e e e c e ae e e e a a a a e Pe f PSY c e f c PSY c b a ce ec e e

PSY 451-3. Seminar in History of Psychology. O e f e e e e f c ca e e ce e G e e e T e f e e a c a be Sc f c ca Rea f a ce E a E a a Pe PSY PSY a a

PSY 462-3. Seminar in Developmental Psychology. I e f c eece c e e e a c T c a Pe PSY a PSY

PSY 499-1 to 3. Teaching of Psychology. A c ea f be ec e a bec a e eae e eac f c Pe C e f c

PSY 521-3. Psychology of Aging I. A a a ce e a e e a e eac ac e fe a b ca e ca e ece a a c e a a f c e a a a S e e e e e eac e a e ca e e c fa Pe P c a ae a c e f c

PSY 522-3. Psychology of Aging II. A a a ce e e e a e e a e eac ac e fe a e a ca a ea a A e eae a e a bec e e S e e e e eac e a e ca e e c fa Pe PSY a P c a ae a c e f c

PSY 570-1. Ethical, Legal, and Professional Issues for Clinicians. T c ec e e e e a a e ca c a a a a f fe a c c c ca c l c e e a a e ca ec a c ca a e c a c e f fe a c e e c e c e a a a ec a a ea Pe P c a a e a c e f c

PSY 571-3. Clinical Skills Laboratory. A c ac c c e c e a e c e a a c ce eae e a e c e ac A e e ef ec ca ac c PSY Pe P a ae a c e f c

PSY 580-3. Behavioral Science Statistical Packages. Te e f ec e f a caaa e be e e e T c c e a e aa c ec eec a e fa ae a ca ac a e a a e e e Pe PSY 8 e ae a a c c e f c

PSY 581-4. Research Statistics and Methodology I. A a ce a ca ec e a e eac e f c ca e eac F c e e f e e e e a e eac e c fac a e eae ea e a e e ANOVA e C e ab f c e e f a ca ac a e f a a f a a Pe l c a c a a e a c c e f c

PSY 582-4. Research Statistics and Methodology II. A a ce a ca ec e a e eac e f c ca e eac F c e e f e e e e a e eac e c c e a a e e e Mea e e e a ec ee c e ab a a C e ab e a ca ac a e f a a f a a Pe PSY 8

PSY 583-3. Applied Multivariate Techniques I. M a a e a c a e a e f c c a e a c T c c e e c c fac a a MANOVA ca c a c e a a e e c e e c e P e G a a e S a PSY 8 PSY 8 e a e SPSS

PSY 584-3. Methods and Design for Analyzing Change. Re a c e a a c a a a f e f c a e T c c e e e e a e a c e e c e c a a c e c e a a e e e a e a C e a b e e P e PSY 8 a PSY 8

PSY 585-3. Research Statistics. A a c e a c a e c e f e a c c c e c a e e a e f a a f a a c e P e l c a c c a a e a c e f c

PSY 587-3. Multivariate Statistics. M a a e c e a e e c b e e e f e e e a e a e P c e e c e e e e c a c a c e a MANOVA fac a a c a f c a a a e e e c e c P e P c a a e a c e f c

PSY 590-3. Basic and Applied Research Methods. A a c e e f e a c e a e P e PSY 8 a c a a e a c e f c

PSY 595-3. Psychometric Theory. T e f c c a e c c E a c a e a e a e e f e a b a a e a a a e e P e PSY 8 P c a a e a c e f c

PSY 603-3. Research Practicum. S e b e a c e a c a e a c a f e a c a a e f e c a P e P c a a e a c e f c

PSY 610-3. Proseminar: Developmental. P e P c a a e a c e f c

PSY 611-3. Proseminar: Cognition. P e P c a a e a c e f c

PSY 612-3. Proseminar: Neuropsychology. P e PSY P c a a e a c e f c

PSY 613-3. Proseminar: Social. P e P c a a c e f c

PSY 614-3. Proseminar: Personality. S f e a e e e a e c c a a a e a c a b a e e c a e a e e a e e f a e P e P c a a e a c e f c

PSY 641-1-3. Aging Seminar (Special Topics). C e e a c a a c T c b e c e e f a c a e e e e See c f e a Ma b e e a e f c e P e PSY a PSY c e f c

PSY 642-3. Aging Proseminar. I e e a a f e a e a c a a f c e c a c e c e a e a f c e c e e a c a Ma b e e a e f c e P e G a a e a PSY PSY c e f c

PSY 643-1. Contemporary Issues in Psychology. C e a c c a b a c e E a c e a e e a c a e e e a e a e e O e a a e e

PSY 648-1 to 3. Selected Topics in Psychology . S b e c a e c a e e e a c a e f f e T e c f a e e e e b e c e e e e e e c e e Ma b e e a e f c e P e P c a a e a c e f c

PSY 651-3. History of Psychology. A a a c e e e e e f e e e f c c a e e c e e G e e e P e P c G a e a e S a

PSY 661-3. Clinical Geropsychology I. P e a e e e a c e a e C e c e e a c e c a e a e c a e e c e a c e c e a c e c e P e PSY PSY a PSY

PSY 662-3. Clinical Geropsychology II. T e a c c a e c e f a e e a e e e c c a e e f e a T c c e a e e f e a c a c e e c l a a a c e e f e a a b e c e e PRER PSY PSY PSY PSY GRADUATE STATUS

PSY 667-1 to 3. How to Teach More Effectively. De e e c e e fe b e c e e effec e e a c e Rea c a e a e c a P e P c a a e a c e f c

PSY 672-3. Ethics and Practice Standards: Professional Development I. T a a a f fe a a c c e e c a a a c a a e c fe c e e c e e c e a e S e e a e e e f e c c a e e e c e c a a e e a P e P c a a e a PSY PSY a PSY 8

PSY 673-3. Diversity of Culture and Family: Professional Development II. T a fe a a c c e a a e a e c a a fa e c e e c a e a e e c l c e a e e f e e e c e a a S e e a e e e e f c c a a c c e a a e e a P e PSY PSY PSY 8 a PSY

PSY 674-1 to 3. Practicum in Clinical Psychology. D e c c a e e e c e f a a e c a a e c S e e c a e c e e e c e Ma b e e a e f c e P e PSY P c a a e a c e f c

PSY 678-3. Advanced Psychopathology. A e e e f e a e e e e a c a a b e a a c a a a c e a c a e e a e a c a a e P e P c a a e a c e f c

PSY 679-3. Psychopharmacology. P c a a b e a a f a c a e e c a e a c c a e e a b c a e e f f e c e c a b e a a c a e e a a b e e e c f e c a e a e e f f e c P e PSY 8 c e f c

PSY 680-1 to 3. Clinical Geropsychology Special Topics. C e e a c c a e c T c b e c e f a c a e e e See c f e a Ma b e e a e f c e P e G a a e S a

PSY 685-3. Clinical Interviewing and Personality Assessment. T e a a c c e c a e e a a e e f e a a c a P a c a c e a a e a e e a e a e e e a e c e c a a c c e a a f e e a e a a e E e e e f c a a f c a a c c e f e e a a e e a e e E a a c e e e f b a c e e a c c a a b e a a a e a e e c e a f a c a a c a a e c e e M e a S a E a a c e e e e b e c e e a a e e a e a b a e a e e f a a a e f P e PSY

PSY 686-3. Cognitive Assessment. C e e e c a a e e a c e f e a A c e e e e a c e c e e a b e c e e PSY 8 C c a N e c C e c e b a c f a f a e c a e c c a a e e f a T c c e b a b e a e a f f e e a a a e P e PSY 8

PSY 688-1 to 3. Clinical Neuropsychology Lab. T a a c c e f c a e c e e e e e e c e a e e e e e e Ma b e e a e P e PSY 8 a PSY 8 a b e c c e P c a a e a

PSY 692-3. Seminar: Psychotherapy. Rea a c f e c e a e c c e f a e e c a e e c e P e P c a a e a c e f c

PSY 700-1 to 6. Masters Thesis. A e e a c e c e e f e a a e fac f e c e a e

PSY 703-3. Doctoral Research Practicum. S e a c a e a e e a c a b a f c e e a c e e c P e D c a Ca a c PSY 8 PSY 8 PSY 8 G a a e S a

PSY 800-1 to 12. Dissertation. P e D c a e

PSY 930-1 to 3. Independent Study in Psychology: Undergraduate. P e f c e a e a c e f c

PSY 950-1 to 3. Independent Study in Psychology: Graduate. P e C e f c

PSY 999-0. Candidate for Degree.

RUSSIAN

RUSS 101-5. Beginning Russian I. S e a e a R a E a e f e e c a e a

RUSS 102-5. Beginning Russian II. C e e a e a R a Rea a e e f e f R a c a P e RUSS e a e

RUSS 211-3. Intermediate Russian I. R a a e e e a e e e S e a e a a P e RUSS e a e

RUSS 212-3. Intermediate Russian II. A e e a e R a c e c e a a a e a c a e a c e a a e a e a e e c P e RUSS e a e

RUSS 920-1 to 4. Independent Study: Undergraduate. I e e e f e a a e B e c a a a e e e fac O f e e e e R a e a a Ma b e e a e e e e f c e P e C e f c

RUSS 930-1 to 4. Independent Study: Undergraduate. I e e e f e a a e B e c a a a e e e fac O f e e e e R a e a a Ma b e e a e e e e f c e P e C e f c

RUSS 940-1 to 3. Independent Studies in Russian. Ma b e e a e e e f c e P e C e f c

SOCIOLOGY

SOC 111-4. Introduction to Sociology. Ge e a e f e e f c S c a a c e c e c e a c e c a c a c a e a c a c a e A e f AS S c a Sc e c e a e a e e e

SOC 211-3. Sex and Society. T e c e c c a e a e e e e c a e e c e e a a e a

e a caa c ac c f ea eea be ee eaa e be a a ae caf ce a e a e e e cac c e eca e ea ace a e a c e a ca e a eba e

SOC 212-4. Introduction to Social Research. A ee e a ea a f ea e e ca e eac e a e ce c e a e e fe ca c A e f ASS ca Sce ce a ea e e e Mee C J

SOC 220-3. Introduction to Racial and Ethnic Groups. A e fc e a acaa e c ea eUS Ic e c f e a ee e f ec e a f ea e e a c a f ca a ae c a a c a e e A e f ASS ca Sce cea C aD e e e e

SOC 222-3. Communities in a Global Environment. Ea e ecae e ee a abe c e afa e a e e b caa e e a ce S ecaa e e e e ac f e ce f ba a c e e a a a A e f ASS ca Sce ce a ea e e e

SOC 224-3. Childhood Socialization. A e a a f e ce c c e e e e e ea e be f e c eTe ece f c c a c ca a efa c ee a ca e c e ea e a e a ee ea be e a e

SOC 225-3.Images of Women in Society. S f e a e f e A e ca ce ea e e ee e ac a c a e e e ce f e Rec e e e e e A e f ASC aD e e e e Mee WMST

SOC 250-3. Social Problems. A c e c ca e ec e ca e a be c a e a ce acea e c e a a c e a e e c a ab e a e a e e c A e f ASS ca Sce ce a ea e e e

SOC 315-3. Modern Sociological Theory. A e e f a e c f e a e ce ece a c e Pe H f c c e f c U e a e e

SOC 317-4. Social Statistics. C e e e e a a e ec e e a a ca a a a e SPSS c e a Re a c e a e a e Pe SOC e a e Mee C J

SOC 321-3. American Minority Communities. E a e e f ce e a e e e e fe c c e eU e Sa e Tec e e e e a c e a e a a e f a ca e e ec e f eac f ef a e e c e a ca be W e a c e a e e e e f e e e ce ea a e e e a a fac e e e e f ea c c

SOC 322-3. Urban and Community Sociology. T ec e f ca c e e e a a a e ce e f ea c e a c ce e a a e f a c a e Pe SOC c e f c

SOC 323-3. The Chicano Community. S f e e e a c e e f e C ca c Ic e e f e Ba e c e ca a e a ec e e ce f e ce a c a Pe SOC SOC Mee EST

SOC 324-3. African American Community. S f e e e a c e a a e f e bac c E c a e a e a f bac c e a a e a ec e e ce f e ce a c a Pe SOC SOC Mee EST

SOC 325-3. Power, Privilege and Social Difference. Ea e e ce e a c a ce e e f ffe e ce a e e a e e e ce C ca a a e e e a c a e e ca ace e e e a a ab E a e a a e e e ec ce a e A e f ASC a D e e e e Pe SOC e a e Mee WMST

SOC 327-3. Native Communities. Ea e e e e e a c e a e f e a e e a a e f Na e A e ca Ic e e f ca c e c ec e e c a a a a acce e ce A e a e c e e ce f bc c a e e e c Pe SOC SOC

SOC 329-3. Perspectives on Race and Ethnic Relations. A e f ac c a e ce a ea be ee a a e ece a ea f e A e f ASC a D e e e e Pe SOC c e f c Mee EST

SOC 330-3. Sociology of Sport. A a f a ace ec e fe fc e a c e e F c a e e e ce a e e a e ca e e e ca ea a a e e f ca fe c a e ec ca e e ca a e Pe SOC c e f c Mee S a S

SOC 331-3. Sociology of the Family. T e fa a a ca H ca e e e a c e a c c a a a e a ec e a A e ca fa Pe H f c Mee WMST

SOC 332-3. African American Families. Ea e e a a fe a f fa e Af ca A e ca c a e caa c e a c a f ce c c b e e e f a a e e E a a ace e e a ca a a bac fa e e e ce Pe e e e f c

SOC 335-3. Sociology of Health and Illness. T c e e a e e c ca e f ea a e ea e a e c a f a e e ac f ca c ace ca a e e a e ca a a a e a c f ea a ea ca e

SOC 336-3. Sociology of Drugs and Addiction. Ea e e c ca ca e a c e e ce f a ca c a a ca c e A e e bc c a ac e ea e a c a c Pe SOC

SOC 340-3. Criminology. A ba c e c e c Te a ea e e e fa e e fca a e ca e c e e e c c ce a c ec a e e A ac c a

SOC 341-3. Sociology of Law. E a e c f a a e e c ec a ce e a a e c a f e c ca e

SOC 349-3. Youth Gangs. A c ca e a a f a Fac e a e f a a a e a ce f e a c e ffe e ca e Te ca c c f a a e a ce cac a c a a f fc S c a c a e b e ce

SOC 357-1 to 3. Field Experience in Sociology. O ba aca e cce f ece ea a ca a a Te e e ce a be a ee l e c e e b f e e ba acce a a ae ace e O e fce a be ea e f eac ee a ee fe e e ce a a f e e ce

SOC 360-3. Introduction to Social Psychology. A e f e e f ca c a e a ca a ea efc ce a e Pe SOC c e f c

SOC 361-3. Gender and Society. E a e e ca c c f e e e ffe e ce a ec e e ce f a ffe e ce f a ea ca a ce e e a Tec e e a e c caa a a ec a e e a c b A e f ASS ca Sce ce a ea e e e Pe f c c e f c Mee WMST a EST

SOC 364-3. Sociology of Popular Culture. S e f c caa a ac e e a c e Sec c c a c ea e ee c bc e a eb a c e Pe SOC

SOC 401-3. Special Topics in Sociology. Offe e a e e a ec ca ea a e a ba Mee SOC

SOC 404-3. Sociology of Gender and Sexuality. Ea e caa c e a e e f e e a e a ec e c e a e c c e e a be ee ac e fe e e e f e fa a e c f e a Pe SOC WMST WMST Mee WMST

SOC 408-3. Sociology of Men's Lives. T ca e a e ac ca e a f e a ac e e e a e e e be l e e a a a ca c c b ca a c c a a e a e e f e e f a e e e e e e a e a a a e f c c e a a ac ace ca a e a e fa e e ce ea f e a ac e e e a e e f e e Mee WMST 8

SOC 409-3. Research Practicum. P ac ca e e e ce a ca a c e f e e a c e a a a ce a ca e e a c be e e ce b c Pe SOC c e f c

SOC 415-3. Social Theory II. E c f c c e a ca e a e c f e e ec a a e e e a e f e e a be e e e a e a Pe SOC

SOC 417-4. Advanced Statistics and Methods. De e e e c e e ce e a ae e a e a f a ca e c e a a e a a A a ce e e a c e a ce l c e e a a ca f e SPSS c e a a c a e e e l c e a c ce a e a a a e e a a a e a ca e a a a a be e e a e a Pe SOC Mee SOC

SOC 418-3. Community Organization and Analysis. S fc a abe ec c c a ca a ca C a a e a a f ace ca e e a e c c e a e e fa a e f e e a c e Pe U e ca ce ce a

SOC 419-3. Deviant Behavior. A e a a f e e a e e ec e a e e c e e ce a ca c f e a be a Va f f be a c e a be a be e a e c a ab e a c e a e e c e a c e Pe SOC c e f c

SOC 420-3. Sociology of Poverty. C e a f c a f e e eca a e a ec A a a e a a fc e e ce f

SOC 421-3. Social Services and Welfare Reform.

SOC 422-3. Sustainable Urban Development.

SOC 431-3. Social Inequalities.

SOC 432-3. Religion in Society.

SOC 433-3. Sociology of Education.

SOC 434-3. Political Sociology.

SOC 435-3. Formal Organization.

SOC 437-3. Technology, Media, and Society.

SOC 438-3. Globalization and Development.

SOC 440-3. Contemporary Social Movements.

SOC 443-3. Social Work Practice with Individuals and Families.

SOC 446-1 to 6. Field Studies in Sociology.

SOC 450-4. Applied Sociology: Organizational Applications.

SOC 451-3. Community Development Field Work.

SOC 452-3. Sociology of Corrections and Rehabilitation.

SOC 456-3. Internship in Applied Sociology.

SOC 461-3. Youth and Society.

SOC 462-3. Sociology of Aging.

SOC 463-3. Social Self and Identity.

SOC 465-3. Sociology of Mental Illness.

SOC 467-3. Sociology of Death and Dying.

SOC 480-3. Sociology of the Military.

SOC 496-3. Juvenile Delinquency.

SOC 501-1 to 3. Seminar: Special Topics in Sociology.

SOC 502-1. Proseminar: Social Statistics.

SOC 503-1. Proseminar: Social Theory.

SOC 504-3. Sociology of Gender and Sexuality.

SOC 505-1. Proseminar in Sociology.

SOC 507-4. Seminar: Research Methods.

SOC 509-3. Research Practicum.

SOC 514-3. Seminar: Applied Sociology.

SOC 515-3. Seminar: Social Theory I.

SOC 516-3. Seminar: Social Theory II.

SOC 517-4. Advanced Statistics and Methods.

SOC 518-3. Community Organizations and Analysis.

SOC 519-3. Seminar: Deviant Behavior.

SOC 521-3. Social Services and Welfare Reform.

c a f ce c efa e ef e a e e e ac e e a e ffe e a ac f ef b ace a e e O e e a e e Pe SOC a a e SOC c e Mee SOC

SOC 522-3. Sustainable Urban Development. S f e e a ac ca a ca f a abe ba e e e a e ca e a a a a e a a e e Fc e e c ca e f ba a ab c ca aca a e a e a e e c e a e C e e a e e a c ab a e ea ca e Pe C e f c Mee SOC

SOC 526-3. Seminar: Urban Sociology. I e e e a a f e caa c a a a f e ba c e H c e a a f e f ec ae a e ec e c c a a ec f ba e e e a a e e a e

SOC 531-3. Seminar: Social Inequalities. A c ca a a f e e ec e e e a e ea c e e f ca a ca e a e A e ca ca e Mee SOC a WMST a EMST SEC

SOC 534-3. Seminar on Sociology of Politics. A a f e ca e b ea f ec c c ca e a e e a e e c a c e c a f a be a a a e

SOC 536-3. Sociology of Culture. A a ce a a f a e e a e e c fc e I c e f e c fc e effec f c e ce c e a e a c e a a a ffe e ce O e a a e e a e a a e e e f c

SOC 540-3. Social Psychology. S c ca a a c e e f e e f e e e a e ca ca a a e c a a ce c f e ce S e f ce e bea e a ce e

SOC 546-1 to 6. Field Studies in Sociology. Fe ba e e a f ec ca ec f ce c e c a c e T ca ce a Pe C e f c

SOC 552-3. Sociology of Corrections and Rehabilitation. Re e a e a e a effec e e c c a a e e be a E a e ca c ca a be a a be a e ce e e c a e c a c ba e a e a e Mee SOC

SOC 555-3. Seminar: The Family. Rece e e ea c a e e a e A e ca fa ac a a e e ec e Fa f c a f c bec e e

SOC 556-3. Internship in Applied Sociology. Pa c a e e e ac e a c e a fac a e ea c c c c e c a e c e O e ca e e e e e f eac e fce Mee SOC

SOC 564-3. Seminar: Power and Privilege. C e f c e e e a e e ec f ace ca e e a e a Fc e e e af e e a f e a e a c f e a T c e e e ec ca e a c ace e e c a a e a e a c a e e a c e e e e f e ac e U S c e a ca O e a a e e a ca e e e abac e e e e

SOC 583-1 to 3. Seminar: Race and Ethnic Relations. A e a a f ac e e e ace e c e a a a cab b ace e c e a ca e e a f a be f c e e a e e e a c fe cc e e a c a e a a e ce c a a c e a ca ce

SOC 590-3. Seminar: Analysis of Criminal Justice. A a f e c e a ac ce fa e ce e e c a ce ce C a f e ce a c ec e f c a a e a ce a ec a a ce Pe Ga a e a Mee CJ

SOC 594-3. Seminar: Sociology of Law. A a f e a ce e e c e e b e e a a ffe e a e effec f e e ce e a

SOC 595-3. Seminar: Criminology. T e e f ca a fc e a a ca e e e e f e ab a a fca e Mee CJ

SOC 700-1 to 6. Masters Thesis.

SOC 940-1 to 4. Independent Study in Sociology: Undergraduate. I e ba a e e e c e e e b a e e c f e a be c e a ce e af e fac e be Eac fac e be a e e a a f ee e e e e e T c e ec ca a a e e e aea c a e e e f eca a ffac e be b ffe e a a e a a f e c ec c Offe e a a

SOC 950-1 to 3. Independent Study in Sociology: Graduate. I e ba a e e e c e e e b a e e c f e a be c e a ce e af e fac e be Eac fac e be a e e a a f ee e e e e e T c e ec ca a a e e e aea c a e e e f eca a ffac e be b ffe e a a e a a f e c ec c

SOC 999-0. Candidate for Degree.

SPANISH

SPAN 101-5. Beginning Spanish I. E e a f Sa a a a e e a a ea a a a

SPAN 102-5. Beginning Spanish II. E e a f Sa c e A a a a a ac ce ce a e a a ea a Pe SPAN e a e

SPAN 211-3. Intermediate Spanish I. Sa a e e e a e e e c ce a c e a c e a c a e a ea a e e Pe SPAN e a e

SPAN 212-3. Intermediate Spanish II. A e e a e Sa c e c c e a a a e a c a e a c e a a e a e a e e a e e c Pe SPAN e a e

SPAN 213-3. Applied Conversation. C e a a e e e a e e e c e a c Sa c e Pe SPAN e a e

SPAN 216-3. Intermediate Grammar. T e c e a a ca f e a e a a e a e e e a e e e Pe SPAN e a e c

SPAN 292-3. Spanish for Health Profession. T e cab a a a e f e f ea ca e A e a a e a c a a e f a c e Pe SPAN e a e

SPAN 293-3. Business Spanish. T e cab a a a e f e f a ce a c e ce A e b e c e e ce a e a a cc e e e Pe SPAN e a e

SPAN 300-3. Spanish Grammar. Ac e e e e e e e e ef c a a ca f e Sa A e e e a ac fea c ba e a e a e c ee e e a c e a a a a e e a Pe SPAN e a e c e a e a c e

SPAN 301-3. Spanish Conversation and Composition I. Pac ce c e a e a ca a c e e e e c e a a e c Pe SPAN c c e e e SPAN

SPAN 302-3. Spanish Conversation and Composition II. Pac ce c e a e a f a a a e c c aca e ce a Pe SPAN c c e e e SPAN

SPAN 310-3. Literary Analysis. S e ea ffe e e e a a e e a a a a e fac a e e ac fc ca e e ca f ba c e ca a f a c e e be e Pe SPAN a SPAN

SPAN 319-3. Introduction to Hispanic Literature I. I c e a f a e e e e c e a e ece f Pe a e a e Pe SPAN e a e

SPAN 320-3. Introduction to Hispanic Literature II. I c e a f a e e e e c e a e ece f a A e ca e a e Pe SPAN e a e

SPAN 323-3. Applied Conversation. C e a a e a ce e e c e a c Sa c e Pe SPAN e a e

SPAN 325-3. Hispanic Culture Studies. C a f Sa Rea f e e c e a e c ab a c ac ec e f e a c Ta Sa Pe SPAN

SPAN 336-3. Hispanic Short Story. Rea a c f a e H a c e c b ea a e ba a e e a e e e P e a e a e f a a e a e e e c e Pe SPAN e a e

SPAN 337-3. The Latin American Essay. Rea f e a W f ec e c e a ce c a Ca a Sa e H Se a G ae Pa a R Pa Pe SPAN

SPAN 349-1 to 3. Internship in Applied Spanish. T e a a e a C e e a e ffe a a ce a a e e e a e e e e c a c ca a e ce ec Ma be e e a e ee e f ce Pe De a e a e

SPAN 369-3. Hispanic Culture Through Film. T e c e a c a fe a f e c e a e a e f H a cc e a e e e a a ca a c Ma be e e a e ce e e c ffe e A e f AS G ba A a e e e e e Pe SPAN f Sa a Mee F CS a Fl M

SPAN 391-1 to 3. Spanish Theatre Workshop. A ea e ac c Sa e e c a c a a ca a e a e a ac e e e b c e e a f e e ce a a c e Pe SPAN

SPAN 392-3. Advanced Spanish for Health Care. A a ce f e cab a a a e a c a a e f a c e f e e a cae fe a Pe SPAN

SPAN 393-3. Advanced Business Spanish. A a ce f e cab a a a e f e fb e a c e ce Pe SPAN

SPAN 401-3. Advanced Spanish Communication I. De e e e e e Sa De a e f e a ce f a a A e e f c f e c a a e f e Sa Pe SPAN e f c

SPAN 403-3. Advanced Conversation and Composition. Ac e e e e aa e c f eea c e a e e ba fe e ce c ac c ac a aa ec Wee c a e e a l e ac a e f a Pe SPAN

SPAN 411-3. Women in Hispanic Literature. A e e fH a c e a ee b H a c ae a fe ae e a be c e a a f e e a Pe SPAN e a e c Mee S a

SPAN 415-3. Masterpieces of Spanish Literature. Ma e f a S a a ea a c Pe SPAN e a e c Mee SPAN

SPAN 421-3. Hispanic Heritage of Colorado. T e f e a a fH a c e a e f e ce e e e A e f AS C a D e e e e Mee F CS

SPAN 425-3. The Cultural Heritage in Latin America. T e ca c a a ca c e a A e ca be Pe C ba e c e a c e e e Pe SPAN Mee SPAN

SPAN 428-3. Generation of 1898. Rea a c f eece b U a Ba Va el ca A a A Mac a S f e ca ce f ce eb a e e a c b H a c ea e a Pe SPAN e a e c Mee SPAN 8

SPAN 440-3. Topics in Contemporary Literature. Se ece c S a a A e ca e a e C e a acc e c a e e ea c e e f e ca P be e e c e W Wa ll e e b F a c S a a aa C ba A e ca e Ma be e ea e cef ce f e c ffe e Pe SPAN e a e c Mee SPAN

SPAN 441-3. Studies in U.S.-Mexico Border Literature. T e ea a fe a fUS Me c b e e c e e e a a ef a ce a S e f e e be S a e be E Pe SPAN c e f c Mee F CS

SPAN 442-3. Hispanic/Latino US Literature. S f e f e ea C ca a Pe Rca a C ba A e ca e e U e Sa e Ta S a A e f AS C a D e e e e Pe SPAN c e f c Mee SPAN a EST

SPAN 443-3. Hispanic US Drama. T ea ca f C ca a Pe Rca a US C ba e c Va e Pe M a M Ta S a Pe SPAN Mee SPAN a EST

SPAN 444-3. Hispanic, Chicano/a, and Mexican-American Literature. T e ea a fe a f a f Me ca ea e e a e Ta E Pe SPAN Mee SPAN a EST

SPAN 445-3. US Cuban Literature. S ce a e e e ce C ba ae e U S a be a e e e a c a eae a f e e Ta S a Pe SPAN Mee SPAN a EST

SPAN 451-3. Contemporary Hispanic American Literature. Rea a c fc e a H a c A e ca a e Pe SPAN e a e c Mee SPAN

SPAN 461-3. Latin American Authors. Rea a c f eece a e a Pe SPAN

SPAN 462-3. Don Quijote I. Bac a f e a f Ce a e D Q e e c a e Pe SPAN

SPAN 463-3. Don Quijote II. Bac a f e ec a f Ce a e D Q e Pe SPAN e a e c

SPAN 465-1. Spanish or Latin American or Chicano Authors. Offe e a ee e ee c e eac c e ca ce T c e e e ce ea ee e a e fe e S a a A e ca C ca a e ece S e a e e c a e a e e e e ec a e a e e e e ec c e e e ce c be ffe e e e a e e e e cce e e e e a e a e b c See c e e fc e f ec c c Pe SPAN e a e c Mee SPAN

SPAN 466-1. Spanish Authors – Poetry. Offe e a ee e ee c e eac c e ca e c e T c e e e ce ea ee e a e fe e S a a A e ca C ca a e ece S e a e e c a e a e e e e c e e c e e e ce c be ffe e e e a e e e e cce e e e e a e a e b c See c e e fc e f ec c c Pe SPAN e a e c Mee SPAN

SPAN 467-1. Spanish Authors – Drama. Offe e a ee e ee c e eac c e ca c e T c e e e ce ea ee e a e fe e S a a A e ca C ca a e ece S e a e e c a e a e e e e c e e c e e e ce c be ffe e e e a e e e e cce e e e e a e a e b c See e c e e fc e f ec c c Pe SPAN e a e c Mee SPAN

SPAN 497-3. Senior Seminar: Spanish. Re e ca e c ef a ae a a S a M a c fa e a e e c Pe F e e ea e c e C e f c Se a

SPAN 511-3. Women in Hispanic Literature. P e Ga a e a Mee S a

SPAN 515-3. Masterpieces of Spanish Literature. Ma e f a S a a ea a c Pe a a e a Mee SPAN

SPAN 516-3. Masterpieces of Hispanic American Literature. A a ce be e SPAN c e Pe Ga a e a Mee SPAN

SPAN 525-3. Cultural Heritage in Latin America. T e ca c a a ca c e a A e ca be Pe C ba e c e a c e e e Pe Ga a e a Mee SPAN

SPAN 528-3. Generation of 1898. Rea a c f eece b U a Ba a Va el ca A a A Mac a S f e ca ce f ce eb a e e a c b H a c e a e a Pe Ga a e a Mee SPAN 8

SPAN 541-3. Modernism. S f S a A e ca e a e e f a e ce A a e e be e SPAN e e Pe Ga a e a

SPAN 542-3. Hispanic/Latino US Literature. S f e f e ea C ca a Pe Rca a C ba A e ca e e U e Sa e A a ce be SPAN Ta S a Pe Ga a e a Mee SPAN a EST

SPAN 543-3. Hispanic US Drama. T ea ca f C ca a Pe Rca a US C ba e c Va e Pe M a M Ta S a Pe Ga a e a Mee SPAN a EST

SPAN 544-3. Hispanic, Chicano/a, and Mexican-American Literature. T e ea a fe a f a f Me ca ea e e a e Ta E Pe Ga a e a Mee SPAN a EST

SPAN 545-3. US Cuban Literature. S ce a e e e ce C ba ae e U S a be a e e e a c a eae a f e e Ta S a Pe Ga a e S a Mee SPAN a EST

SPAN 551-3. Contemporary Hispanic American Literature. A a ce be e SPAN c e Pe Ga a e a Mee SPAN

SPAN 561-3. Latin American Authors. T e e a A e ca a a Va e e a l abe A a a Ma a Ta a Rea a c f eece a e a A a ce be SPAN c e Pe Ga a e a

SPAN 562-3. Don Quijote I. Bac a f e a f Ce a e D Q e e c a e Pe Ga a e a

SPAN 563-3. Don Quijote II. Bac a f e ec a f Ce a e D Q e Pe Ga a e a

SPAN 565-1. Spanish or Latin American or Chicano Authors. Offe e a ee e ee c e eac c e ca ce C e e e ce ea ee e fe e S a a A e ca C ca a e ece S e a e e c a e a e e e e c e e c e e e ce c be ffe e e e a e e e e cce e e e e a e a e b c See Sc e e f C e f ec c c A a ce be SPAN e e Pe Ga a e a Mee SPAN

SPAN 566-1. Spanish Authors – Poetry. Offe e a e ee e ee c e eac c e ca ce C e e e ce ea ee e fe e S a a A e ca C ca a e ece S e a e e c a e a e e e e c e e c e e e ce c be ffe e e e a e e e e cce e e e e a e a e b c See Sc e e f C e f ec c c Pe Ga a e a Mee SPAN

SPAN 567-1. Spanish Authors – Drama. Offe e a ee e ee c e eac c e ca ce C e e e ce ea ee e fe e S a a A e ca C ca a e ece S e a e e c a e a e e e e e c e e e ce c be ffe e e e a e e e e cce e e e e a e a e b c See Sc e e f C e f e c c c A a ce be e SPAN e e Pe Ga a e a Mee SPAN

SPAN 920-1 to 4. Independent Study in Spanish. Ma be e ea e ee e f ce Pe C e f c

SPAN 930-1 to 4. Independent Study in Spanish. Ma be e ea e ee e f ce Pe C e f c

SPAN 940-1 to 4. Independent Study in Spanish. l e e e f e a a e B eca a a e e e fac O f e e e S a e a a Ma be e ea e ee e f ce Pe C e f c

SPAN 950-1 to 4. Independent Study in Spanish: Graduate. l e e e f a a e e b eca a a e e e fac Ma be e ea e ee e f ce Pe Ga a e a

SPORTS AND LEISURE STUDIES

S L 220-3. Introduction to Fitness Management. A e c e a a e e ea e a eac e c ee a a a a e a a e e a ea e

S L 270-1. Introduction to Sport/Recreation Activity.
Ba c c a a c a a ece
a a ac e c e b e e ba
c c e f ba e ba ae bc a ce
a a e c a e e S e a e a a
f ee ffe e ac e f a a f ee
f c e Eac ac ca be a e ce
f c e F e e e e c a a e S
a e S a e b ca a e S
a e S e a e Pe C e f
c e e

S L 271-1. Self-Defense and Empowerment. A ca
ac c e f c e f e f e e a e a
e e e e e e e f
ca a a e e a e e c f e f a e
S e e e a e e a
a

S L 275-1. Intercollegiate Sports. S e c e e a
e be f e c e a e e a e a e a
e f c e f a f e a f a c a
Ma be e e a e f a a f e e f
c e

S L 279-1. Introduction to Strength Conditioning.
I c e e f e e c e a c e a
e e e e a c a e a e a
e S e e a e e
e e e a e f a c e T c e
a be e e a e f c e Pe S

S L 301-1 to 3. Special Topics in Sports and Leisure.
S e c a c e e e e e e e e f e
e c a e a c a e c e e e a e e
e e c e e e a

S L 400-3. Perspectives on Sport and Leisure Studies.
A e e c c a a a f e e e b e a
a e c e E a b e e e
f a e f e e a c e c e e a
f e e e a a e a e S b e c e e
a a e c a f f e e Mee S a
SOC

S L 402-1. Effectiveness in Coaching. T e A C E P
a e c e f c a c e c a c
e e c e a a a e e c e c e a
c a c e a C e e e a e e I C a c
S e a c e e S S a S
c a e a e S f c e Mee S

S L 404-3. Principles of Sport Psychology. M a
c c a e a a e e e e f e a
a e a e c f e a c c a c a e e
e a a f a e e f
a c e b e c e e Mee S

S L 405-1. Principles of Sport Physiology. P c e
a e f e e c a a e e e
P e c a c e e f a a a c e
e e a a a a e f a c a
a a e e Mee S

S L 432-1. Principles of Sport Law. E a a c a c
e a e b e a e a e a
e a c c a a c e f a a f c a e
a a f e f a e e Mee S

S L 440-3. Dimensions of Athletic Administration.
A a f a a a e
c c e e a e e E a e e
e e e c a e e a a e e f
a e c a a c a e a a e e
a a f f a c a c e a e a c e e a e e
e c e a e c e a
c a c e Pe J Se a Mee
S

S L 452-1. Sports, Drugs, and Society. S e e
effec f e e a e e e a a e c
e f a c e E a a e a f e
a c e a e e a
ab e Mee S

S L 461-1 to 4. Sport Specific: Basic Techniques and Tactics for Beginning Coaches. P e a b e
c a c e e a f a c a c
a a e e c e a c a c effec e
Ma a b e e a a e c a c c e

S L 462-1 to 4. Sport Specific: Intermediate Techniques and Tactics in Coaching. I c
c a c e c c a a c e e e e I c e
e e f b a c a a e e e f e a a
e b c c e a e e a e a e a c
e a a a e e e A ffe e a a
e c a c e Pe S e a e

S L 463-1 to 3. Sport Specific: Advanced Techniques and Tactics. P c e a a e e f c a c a e
a a c e a c e e e e Ma e a e
e e c e b e c a c c e c
e c c a e Pe S S c
c e Mee S

S L 490-1. Internship in Sport and Leisure. P a c e
a e c a e a e e e a e a f
e c a a e e e a a e e a
e a c e e e c e Pe S
e a e Mee S

S L 499-1 to 3. Selected Topics in Sport and Leisure.
T c e b e ffe e e e e a f
c e c e a e a f e c a e
e ffe e e c c T c c e e
e e a b e c e e a b e e e
e e e c a e Pe C e f
c Mee S a SOC

S L 500-3. Perspectives on Sport and Leisure Studies.
A e e c c a a a f e e e b e a
a e c e E a b e e e
f a e f e f e a c e c e e a
f e e e a a e a e S b e c e e
a a e c a f f e e Mee S a
SOC

S L 502-1. Effectiveness in Coaching. T e A C E P
a e c e f c a c e c a c
e e c e a a a e e c e c e a
c a c e a C e e e a e e I C a c
S e a c e e S S a S
c a e a e c e f c e Mee S

S L 504-1. Principles of Sport Psychology. M a
c c a e a a e e e e f e a
a e a e c f e a c c a c a e e
e a a f a e e f
a c e b e c e e Mee S

S L 505-1. Principles of Sport Physiology. P c e
a e f e e c a a e e e
P e c a c e e f a a a c e
e e a a a a e f a c a
a a e e Mee S

S L 530-3. Management of Sport and Leisure Programs. A a f a a a c e f
a a e c e a a e c e T c c e a c
a e c a b e e f e e a e a e
e c e e e e a c e a e a a e e
b e c e c a a e c Mee
S

S L 532-1. Principles of Sport Law. E a a c a c
e a e b e a e a e a
e a c c a a c e f a a f c a e
a a f e f a e e Mee S

S L 540-3. Dimensions of Athletic Administration.
A a f a a a a e
c c e e a e e E a e e
e e e c a e e a a e e f
a e c a a c a e a a e e
a a f f a c a c e a e a c e e a e e
e c e a e c e a
c a c e Mee S

S L 552-1. Sports, Drugs and Society. S e e
effec f e e a e e e a a e c
e f a c e E a a e a f e
a c e a e e a
ab e Mee S

S L 561-1 to 4. Sport Specific: Basic Techniques and Tactics for Beginning Coaches. P e a b e
c a c e e a f a c a c
a a e e c e a c a c effec e
Ma a b e e a a e c a c c e Mee
S

S L 562-1 to 4. Intermediate Techniques and Tactics in Coaching. I c c a c e c a a
c e e e e l c e e e f b a c a a
e e e f e a a e b c e a e e
a e a e a c e a a a e e
e A ffe e a a e c a c c e Pe S
e a e Mee S

S L 563-1 to 3. Sport Specific: Advanced Techniques and Tactics. P c e a a e e f c a c a e
a a c e a c e e e e Ma e a e
e e c e b e c a c c e c
e c c a e Pe S S c
c e Mee S

S L 590-1 to 6. Internship in Sport and Leisure.
P a c e e a e c a a e a e e
e a e a f e c a a e e e a
a a e e a e a c e e e c e
Pe S e a e Mee S

THEATRE

THTR 100-3. Introduction to Theater. A c
e a a a c c e f e a e c a c e c
a c e c a e C e c e
e e a e a c e a e a e c A e f
ASH a e a e a e e e

THTR 200-3. Introduction to Technical Theatre. A
c c e e e a e a a e
f a e a f e c c a e a e S e a c e
a c a e e a e c Ma be a e
a a a e a e THTR

THTR 201-1. Stagecraft Laboratory. A a
a c c a e c a f S e b e e c c
e b e c Re e f a
e a THTR

THTR 202-3. Acting Workshop I. A c
a e a c a e a e a e a e
e e e e a a a c c e a
Se e a c a a a e e c e a a
b a c a a c c a a c e e e A e f
ASO a C c a e e e

THTR 203-3. Acting Workshop II. C a THTR
e e f e a e c e e
a e a e a c e e e c e l c e a e e a
c a a c e e e a c e e A e
f ASO a C c a e e e Pe THTR
c e f c

THTR 204-3. Voice and Articulation I. S e c a a
f e c e T c c e b e a e c e
c e a e c a c a a b a c IPA
l e a a P e c A a b e P e e e f THTR
V c e a A c a II A e f ASO a
C c a e e e

THTR 250-3. Movement for the Actor. F c e e
c a a f e a c S a e c b a e
e e a a a c a a c e e e
e b e e e Pe f a c e e e
e e Fa S e S c a e S Fe a

THTR 260-3. Theatre for Children. A e c e a
a c c C e T e a e a e c a a e a e
e c e Va c e a e f a a
c e e f a a e e a e
c Rec e e f a c a b e
e c a Fa Pe THTR

THTR 280-2. Theatre Tour. C a a e a a
c Ne Y a e a e c
Rea c a e a e a
e a c c e A a f e e

THTR 290-3. Special Topics in Theatre. T c
a f e a e a a b e a b e
c

THTR 302-3. Advanced Acting Studio I. I e e ce e a e e a ce F c e e f ef a ce P e O e ON Y e a ec ee THTR b eca a a e f c PRIOR a f ca Pe f a ce e e Fa S e S ca e

THTR 303-3. Advanced Acting Studio II. A c a f THTR b eca e f e c S e e eac a ef a a e f b e a Ca c a e a ef a ce ec be ca e e S S e T ea e Fe a P e THTR c e f c

THTR 304-3. Voice and Articulation. C a f e THTR l e e f E S e ca ec ea e IPA l c f aec a ce e c eca P e THTR e f c

THTR 310-3. On-Camera Performance. A c ece a f c ca aca ea c eba cac ec e T a c e c e ca eae e e ce c ecac c e a e c a a c ce e a ac A e f AS O a C ca e e e

THTR 320-3. History of Theater I: Greeks through Restoration. T eba c e e e f ea ef e Gee Re a T ee a ea e a a ef a cea A e f ASH a e a ea e e e

THTR 321-3. History of Theater II: Realism to the Present. T e e e f ea ef Rea He lb e e e e E a a f a ce a a E ea A e ca e a C e a ea e A e f AS H a e a ea e e e

THTR 322-3. What's Funny? The Nature and Form of Dramatic Comedy. A a a ce e f a a c c e f a ce e e e e a ca e a c f e c cac a a e fc cf

THTR 328-3. Women in Theatre. A e a a e a a f e f a c a a c b e e f a a a c e e a ec e C b e a ac ce eac e e e e e e a e a ea a e ea fa fe a e a e e A e f AS C a D e e e e

THTR 336-1 to 6. Theatre in Production: Technical Practicum. Pa c a a ec ca a a ce e e c a e S e T ea e Fe a E e b e f c P e THTR e f c Mee THTR

THTR 338-1 to 6. Shakespeare in Production. S ec a c e a e ec c c e T ea e S e S a e ea e Fe a E e b e f c P e THTR

THTR 339-1. Theatre Practicum. S e ece e ac ca e e e ce a a ac ec ca a e c E e b a a e f c P e e e b a a e f c Mee THTR

THTR 350-3. Theatre for Children. A e a a ac c C e T ea e S e e a e a ce a a c e e fa a e e a e c C e c e a f c be e a ea c Rec e e f ac a be eac e P e THTR a S ec a e a b a

THTR 360-3. The World of the Play. S e c e be e e c a e c e e a a T ea e a c T c c e e a c e a a c e a ec e a e ce ec a e e f e e a e a

THTR 390-3. Special Topics in World Theater. Va c ea e ac ce a e f ea e Ma be e ea e f ce f c ffe e

THTR 392-3. Elements of Theatre Design I. F e e e fa a c e ea f ea ca e a e W e a e e e a a e ea ca c e c ce a e ce a ea af ba c e a e

THTR 393-3. Elements of Theatre Design II. T e ec e e e fa a c e ea f ea ca e a e S e ee e e a a ac ca a ca f e a e ec e P e THTR

THTR 403-1 to 3. Internship in Theatre. De e ea ca e e e ce ec ca ca f ee a c ce a e e fe a a Pa Fa P e Pe f P a D ec

THTR 406-3. Directing I. A c ec f e a e E a f a a ec e a e e a ec ca a ea a e a e a e e c a a Pe THTR a THTR

THTR 407-3. Directing II. A e a a ac c ec f e a e S e a ea e ec e f THTR b ec e a c a c be e f e e S S e T ea e Fe a P e THTR

THTR 420-3. Special Topics in Dramatic Literature. Va c e a e e f a a c e a e Ma f c a a c a a e e e Ma be e e a e f c e f c ffe e

THTR 439-1 to 3. Theatre Practicum. P e ac ca e e e ce a a ec f a e c E e b a a e f c Pe THTR THTR e f c Mee THTR

THTR 940-1 to 6. Independent Study in Theatre. I e e e ea e c e f a ce b e f e a e c a

VAPA

VAPA 100-3. Ethnography of Performing Arts. T e fe a e ea e c be c a e a eab e f a ce a c a ac ce l e a e e f a ce f a e c a e a a e a a E a e e f a ce ce a e ea a a e ca fe

VAPA 105-3. Visual and Performing Arts Foundation. A e c a f a a c c e e a e e a ac ce fa f ee c a ce e a a ac e f ac ea a e a e a a e e c e a e a a e a ec e a ba e c e T c a See c e c e e f ec c c

VAPA 110-3. Art in Time and Space. E e e a ace e c ea e ce e b a e f a ce c e a a ac ce a e f a ce a a a E a e e e e a a a a a f ca a c e a e e a c ab a ac a a e f c e a a c a c e

VAPA 390-3. Theory and Practice in the Visual Performing Arts. A e a cc ce a ba e a a ce e a f e e a f e a e f a T e c e e e e ec c ab a fa f c a ce e a a ac e f c e e a f e ac ce b be ee e e ec c e f e c T c a e e e e e e Pe VAPA e f c

VISUAL ARTS

V A 101-3. Beginning Studio 2D. E e e e e a c ce e e c e a f e a a c c a c e e Pe e a a e e VAc e A e f ASH a e a e a e e e

V A 102-3. Beginning Studio 3D. A ba c c e f a e a e e e a c ce a c e e ff ace a Dc c ec e Pe e a a e e VAc e A e f ASH a e a e a e e e

V A 104-3. Beginning Drawing. E e e c e f e f a ace a a e f a ec e a e a C ce a fe b ec a e e a f e a e

V A 201-3. Intermediate Drawing. C a f e f e f a ace a a e f a e a e a e e e Pe VA e f c

V A 202-3. Printmaking. I c e e c e a ec e c cee Xe a a e c Sec cc e be e e b c

V A 206-1 to 3. Two-Dimensional Topics. Va D a ac e a ce e ac ab a ec f e a Sec cc e be e e b e c

V A 207-1 to 3. Three-Dimensional Topics. Va e e a a ac e a ce e c c e a c a f Sec cc e be e e b c

V A 208-3. Beginning Sculpture. I c c e

V A 209-3. Textiles. I c a be ce e c e f c c e e a a a a e fe Mee VA

V A 210-3. Digital Imaging. I c a e a a e ce fe e e a a f e f a e a A e e ef a e a f e a e a a e Pe VA e f c

V A 211-3. Introduction to Photography. A e e f a a c e a ec e a c ce S e ea ba c b a c a e e e e a a Pe VA e f c

V A 212-3. Introduction to Artists' Books. S e e e a e f b c c c e f e e a e a f a e c e e a e a b b f a e a Pe VA a VA Mee VA

V A 213-3. Beginning Painting. I c a c ce a ec e a c e e e Pe VA AH

V A 219-3. Weaving. I c e f a e c a e af Df a ba c ea ec e

V A 244-3. Papermaking. E a f a e a e c e a f a a e a e a e a e e a a ee e a b e c

V A 301-3. Advanced Drawing. E a e e a c ce c a a e

V A 302-3. Advanced Printmaking. C a f VA e a e e e a a e e e f a c ce

V A 306-1 to 3. Two-Dimensional Topics. A a ce D a ac e a ce e ac ab a ec f e a

V A 307-1 to 3. Three-Dimensional Topics. A a ce c a f e e a

V A 308-3. Advanced Sculpture. C a f V A 8 e a e e e f a c ce a a e f c e e a Pe VA 8 e f c

V A 309-3. Advanced Textiles. F be c e ba c be c c c e a ce e Mee VA

V A 310-3. Advanced Digital Imaging. A e a f e ec c e a a e a f e a a a ac a a c e a e e e a e a a e e e fac ce a efe e ce Pe VA e f c Mee VA

V A 311-3. Intermediate Photography. A c a f e f bac a e a Pe VA e f c

V A 312-3. Intermediate Artists' Books. E a be ace e c a a ec f eb a a a b ec c e e e a a a e f e a a f a Ma e e VA VA Pe VA

V A 313-3. Intermediate Painting. C e a e a b e be e e Be Pa a A a ce Pa S e e e ce Be Pa A e e e e a a ce ec e e a ea a ce e a c e W e e ea c ec a e e e e ce Pe VA VA a VA

V A 319-3. Advanced Weaving. C a f VA b f a e a e a a Df

V A 344-3. Advanced Papermaking. A c a f V A a a ce ce e a e ec e

V A 398-3. Seminar in Studio Problems. Re e a a c ee a e e a c e e e a c a fc e a c e a f ce e ece a c e e a b f e ec e a e e e e

V A 401-3. Contemporary Drawing: An Interdisciplinary Approach. U a a a a a a a e a e e a c e a e e e a e f e e a a a e a a c e a e e e e a c be e e l e c a c b a a be e e P e P e e a e e a e f c e a fe a a O e e Pe V A VA a VA VA e f c

V A 403-1 to 3. Internship in Visual Arts. S e e e f a a ce e a e e a c ce a fe a a Pa Fa Pe Pe fa

V A 410-3. Advanced Projects in Electronic Imaging. E a e e a c a fa e a a e c e e e ec e e e a a a a ce e e e e a Pe VA Mee VA

V A 411-3. Advanced Photography. E a f a a ce ec e a c ce e a e e e e f e a e e Pe VA e f c

V A 412-3. Advanced Artists' Books. I e e f e e e e e ce e b a E a be ace c a e e a a ec f b c c a e e a e e e b f a Pe VA

V A 413-3. Advanced Painting. C a f VA U e a e ec e a c e a a ce a e be e e e a e e e e a c ce a ec S e e e a e a a c E e e a e a e a e c a e a e Pe VA e f c

V A 444-3. Contemporary Handmade Papermaking Techniques. S e e e e ec e ca e l c e e e a f a e e a c ce e a e a e e e a b e

V A 498-3. Professional Seminar. A e e c e f a a a Pe a a f a fe a a ac ce c e a a f e e a e a a e e e e a c a c a a e e a e b a a e a ab e a b a a a a e c a ca

V A 940-1 to 4. Independent Study in Visual Art. I e e e S V a A e a a e Ma be a e a e a a f e fe f ce b a a e e

WOMEN'S STUDIES

WMST 131-3. A Lab of Her Own – Science and Women. I c a a ce ce a e f ce ce a l f c e e a c a b e f a f ce cc ce a e e e e f e M e c ce f ce ce a a e a c a e a e c b e e e be e e e T c e a ffe a fe c e f e a a e f ce ce Mee PES a PHI

WMST 200-3. Introduction to Women's Studies. A e a c e e e ce e e e c ce a e b a e c e ca a e a a c a c a e c be e e C e e e e e a e a e e e a a ac c e A a f e e ec f Race Ca Ge e a Se a e e e W e e e e ce ce a c ec e a A e f AS H a e a C a D e e e e GT AH

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WMST 202-1. Introduction to Diversity Issues. T c a a a c e e a e e a c a cae e f ffe e ce a e e e f c a ce a e f e a a e a a e a e e a e S f a e e abe be e e O e ON Y e a e NOT a e WMST WMST EST EST Mee EST

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WMST 225-3. Images of Women in Society. S f e a e f e A e ca ce e a e e e e e ac a c a e e e ce f e Rec e e e e e A e f AS S ca Sce ce a C a D e e e e Mee SOC

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WMST 301-3. Women in Politics. A e a a f e e f e A e ca c T c c e a ca e e c e f e ca ac e ca e e a ac e f e e e a a f e ca a e fa a e a e ca be a Mee P SC

WMST 304-3. Women Around The World. P e a ba c c a e e c e e e a a ca f a e e a e e a e e e a c a e e e ce e c e f e e e f ffe e e f c e e A e f AS S ca Sce ce a G ba A a e e e e e Pe WMST ANTH ANTH WMST e f c Mee ANTH

WMST 310-3. Women of Color: Image and Voice. A e a a f e a c e e e c f ace e c a e e a e c ce b a a a a a A e ca fe a e e c e Tec e a e a e a f e e ce f a ea fe a e c c fa e a e e e e a b e f c A e f AS H a e a e a e e e Pe WMST EST WMST EST Mee EST

WMST 311-3. Women and Religion. E a e e a c e a e bee a c e be e e a e e c a a c e a a e e ac a e ac ce a be ef T c e e e e a a e ca f e e be e e e a e e ca f a e e a b e a a abe e e a Mee PHI

WMST 320-3. Women Writers and Women's Experience. S f e e e e e e a e beca e f e a a e c f e e Mee ENG

WMST 323-3. Women's Equality, Women's Difference. A c c e a e e b e f ca e a e f e a c e a caa a e f e ca ca a c ce c a ca e A e f AS C a D e e e e Pe PHI WMST WMST Mee PHI

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WMST 326-3. Women, Visual Arts, and Culture II. I c fe e a e a c c f e e e F c e e a a e e a e e a f fe b e a e e c e a c e a a e e e ec f a c e e a e e a e a e Pe AH e f c Mee AH

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WMST 366-1 to 4. Women's Studies Service and Learning. P e e e ac ce e e e ca e e a e WMST c e e c e f ace e c ba e a a a e e e a a e e f e e C a S P e WMST WMST c e f c Mee EST

WMST 371-3. Good Wives and Nasty Wenches: American Women's History, 1607-1877. A e f e f A e ca e f e C a e a e C Wa c ce a e e e e ce l ce e e c a e c c e e a fa a e f A e ca e Mee HIST

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WMST 431-3. Social Inequalities. A e a a f ca e a e a e ce f ca a ca a ca e a f a a a c e a cee e a eA e ca ca e ec c a a e ffe e a be e e a e a fe e fe c a ce ca c e a e a ca b P e S f c c e f c Mee SOC a SOC

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WMST 940-1 to 3. Independent Study in Women's Studies. A e e e e e c e e e fac a e e e e ec f e e a c c e e a ffe f e e a e e c e a e c e e W S P a S e e c e a a f e fac e be e a e a f e W e S e a ec P e C e f c a W e S e a ec

COLLEGE OF NURSING AND HEALTH SCIENCES COURSES

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HSCI 105-3. Introduction to Basic Emergency Services. l ce e c cae e e ce e e e c e ce e Pe HSCI

HSCI 106-3. Personal Nutrition. Fac e c a a e e e a f ce ee e E a a ca f b ca c e e e e a e C e c e e a a e a ee a e a e ac f e a e Mee BIO

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HSCI 207-3. Nutrition for Health Professionals. A c c e f ea c e e c f c e b c a a e e a e c e a e e a T e e f e e e ab a a e e a c e f e a fe a b e e a e a e a e a e a e e Mee BIO

HSCI 210-3. Patient Assessment. F c e e e ca e e e c e a e a f c e e a e a a e e E a a f e a c c e c e e a e c a f c e e e e f e e a e a a f e a e E c a c a f a e e a e e e

HSCI 245-3. Health Care Environment. l ce e e c e e a c a e e e a e e f e a e e e T e c a a c e a f c e e e a c a e e e e e f e a fe a c a c a a e c c e c e e b e e

HSCI 247-3. Spanish for Health Care Providers. l c c e e a a S a a e a e a c a e e e

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HSCI 301-3. Pathophysiology. Pa ca c c e b e c e a b a c c e c e C e a e e a ca c e a e c e a e e e a f e a a a b a E e a f a c e a e a e e f e a e c e Pe BIO BIO BIO CHEM a CHEM

HSCI 302-3. Introduction to Emergency Medical Service. A e e f e e a e b e f e f e a e a c a e e E e e a c c a e c a e a a e c a c e a E a e e e e a a c a e e f a e e a c e a c a e e f a e c e Pe BIO BIO BIO

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HSCI 304-3. Yoga Theory and Practice. E e a e a a c e f c e e b b a a c e a a a f a f e c e a c e P a c c e a a a e a e e e e a f e f c a e a e a b c a e f e

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HSCI 413-3. Trauma Management (EMS). I ce ee e a c a e ee a a a c a I c e a c e e a a e e e c ab a f ea c e ab e c e a e e a a

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HSCI 429-3. Legal Aspects of Forensic Science: Civil and Criminal. C a c a fa a be c e a e ea e f e c e P e Pe f c Mee HSCI a NURS

HSCI 430-3. Sexual Assault: Implications for Health Care Delivery. F c e e be f e a e ce a e c e a a ec f ea ca e E e e e c a a ca ac e a ce a f ca e f c e e a a e fa e a ee e M e f ee e a e e a b ce ca a e e ae

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HSCI 434-3. Psychosocial and Legal Aspects of Forensic Science. I ce e c ca e c e ca c ca a ea e f f e c A e be e a e e a a f e a e a e e face be ee e c ca effec f a e a e ca e C a c a fa a a ca f f e c be c ee Mee HSCI a NURS

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HSCI 440-4. Forensic Practicum. A e e e e e a e ea e a ece a ea e e e S e a e c ac a a f fac a ece P e HSCI a HSCI Mee HSCI HSCI a NURS

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HSCI 454-3. Death and Dying. A c e e e c e f ea a e a fa e a e f e c a a ac e P e a e e ca ba a c e e ea c e c T ec ea a f e a e fe a a e a e e e a c e

HSCI 455-3. Complementary Healing Methods. A e c e c ee a e e f e e e ca ba e a ca e ce a e f c e e a ea e T ee f We e ce c a Ea e e ca e e e a e a a ba f e a c e ea e ec e a ea e a e T ec e e e a a e ee fa f e e e

HSCI 456-3. Women's Health Care Issues. Se ec e e e a ee e f a ca c ca a c ca f c e c ea e e a f ee e e ce a ac e a e ca e ea ca e fe a a e ea ca e e

HSCI 457-3. Creative Journey. T e c a c ee e ec ce c ee ec e e e ce a c ea ac a fa e T e ea f fea a e e e f a f e e ec e ee e f e e be e e e a ea ec e

HSCI 459-3. Concepts of Health and Disease. P e bac a a a e f e a c b ca c ca a a e ce ea a e

a e f e a affec e a a fa l ca f e caa c e a fe eae e e aea e e Pe BIO a BIO

HSCI 460-3. Fitness and Wellness Concepts. l ce ec ce a fae f ea a e P e a e e ffac e c e e f a fa e a ce Pe BIO BIO HSCI HSCI a HSCI Mee BIO a BIO

HSCI 461-3. Sports Injury and Prevention. F c e e caa e ec e e fe e ec ea e e ab a ec a a e e f E a be e e f b c a e c e eae ca a c a e ace e b e a c ae a ce a a b c Mee BIO a BIO

HSCI 462-1 to 10. Internship in Sports Health. P e ac ca ec e e a e c ec ce Fe be e e bca aea e ce a Pe Se a e f c

HSCI 463-3. Culture and Health. E e ea e c ce f a a a ce c c aa e e C a ea be ef e b ca a a a e faa a ee e ae c e

HSCI 464-3. Program Planning and Implementation. P e c e ef a a e e ea a De eae c e af e e e f ea eae a a a e e e caa e a e ea a e ca C e c e e eae e ce e e e c a e e a b a a e a a a e ea e ce a e a a f e

HSCI 465-3. Principles of Instructional Design. P e a be e e e f a c a e fac a e e ea ce f a a e fea e Tec e ce eac ea e a c e a eac ea e e a a e e ea ca ca a c ca e Tec e e a e e f e fea a c e e f e a ea e e

HSCI 466-3. Teaching Internship. T c ca c e e e e e e eac a ca a c ca e e e ec f a a e ece A a e fe a e a a abe f e S e c ac f eac e e e ce e e e e Te e e e e e e eac e a f c a a a fa eac ea

HSCI 467-3. Health Assessment. P e e e ea ece a f c e a a e e f a l c e aa ee f ca e a aa caa e e E ca ca fa e e a aee e l ce e a e f fac a e ea a e e a c e a f

HSCI 468-3. Health Promotion and Wellness. l ce ec ce a afa e f ea a a c ce P e a e e ffac e c ea be a f a a fa e l ce e e e a e e e a e ea be a a e a fa e f a e e fa a a c e c a e

HSCI 469-3. Clinical Practicum. A c ca c e a e e ea ce ce e e f c a a e be fa ea ca e ea e e ec fa a e ece C ca ace e a e a e ba e e e ca e e a a a

HSCI 470-3. Critical Care Transport I. l ce e e a e f c ca ca e a e fa a e l c fc ca c c a e ICU CCU a e a a a ce a e e ec e f a e ca a c a a e c a GI GU e a c C ca e e a ce f a ab a e a e a ea e a fa c ca ca e e Pe Re e e ce ca a a a a e c

HSCI 471-3. Critical Care Transport II. l ce e e a e a f c ca ca e a e fa a e l c fc ca c c a e c ICU CCU a e a a a ce a e e ec e f a e ca a c a a e e ca GI GU e a c C ca e e a ce f a ab a e a e a ea e a fa c ca ca e e Pe Re e e ce ca a a a a e c

HSCI 472-3. Health Care Finance. l ce e ea ca e a c a e acc b e a e ce a ca l c e e c a f a c a a a e e ce a eb a baa ce S c a a ca e ce a e e e Pe FIN a ACCT

HSCI 473-3. Community Network Development. F c e ea e e ea e e e fc e Me a e f a e a c ab a e ea a e e e S e a e e a e c e ce c a a e e Pe HSCI HSCI e f c

HSCI 474-3. Aging, Physical Activity and Health. P e e a f e e a ca c a a ec e a ab e a e ea a f c e e afe effec e ca a c a a ea f e a

HSCI 475-3. Clinical Trials Management. C e e e e a ea a f a eae c ca a f a a Re a e e e c a a c ac e af c e e e a a f a c e

HSCI 477-4. Management Practicum. De e e a e e e e ca c ce a e e f ea ca e a a e e a a e f ea ca e e S e f c a a a e e e ce e c a e c Pe HSCI a HSCI

HSCI 479-3. Management Synthesis Seminar. E e e a c e f e ea ca e a a e f c e a e a e e ce P e a f a e f e e fe a e ba e a ca e ea ca e a a e e e a e f e Pe ACCT M TG a FNCE

HSCI 489-3. Special Topics in Health Sciences. T c e e e e a e a b a e ca e e a a e a f ea ca e a ca e e ca e e a a a S e e e ea be c e a e a a e c ab a ea e fac Pe Fac c e be e c e e a

HSCI 492-3. Nutritional Assessment Across the Life Span. l ce e ec e e e e f a a e e ac e fe a l c e c e c c a a c ca fac e c Pe HSCI HSCI a HSCI HCSC e e f c

HSCI 493-3. Medical Nutrition Therapy. P e e a a e e a a e e a e e fc ac e a c c e a e f e e e a a Pe HSCI HCSC e e f c

HSCI 494-4. Nutrition Science Practicum I. P ac ca e e e ce c e a a a e e a a a e e a a e fe Pe HSCI Pe c e HSCI

HSCI 495-3. Exercise Testing and Prescription. E a a ca a e e ce e f e c a e e a e e c e e c e U cce f c e f e c e e a e e ece a b a fe a ce ca e A e ca C e e f S Me c e e e abe ce f a a Pe HSCI BIO BIO a BIO

HSCI 503-3. Sports-Specific Training Principles and Techniques. T e a ac ce f e a a e e a a c a f a e e E a be ace e ec c a e f c a O e a a e e Pe BIO BIO Mee HSCI

HSCI 521-3. The Healing Power of Dreams. P e a e a e ea b eac ba c ea a a c e acc Ca J

HSCI 535-4. Advanced Function Human Anatomy. A f c a a ac a a a f c c e e a c e e e a e a e a eac ac e e e f a c e a a a a a a e a a c a a f c a a a f e ca a c a e a e e e c e a e c e e O e a a e e Mee BIO a BIO

HSCI 542-3. High-Tech Crimes and Computer Forensics. P e a e a f ec c e a e a T e e c e c e e ef f a e be e e a f e S e a a a a e a fc e f e c a e a e f c e e a e a O e HSCI a Mee HSCI

HSCI 560-3. Biomechanics of Musculoskeletal Injury. Ac e e e e f e b ec a c f c e e a T e c e e e a ba e f c e e a e a c a a ec a effec f e a b e c a c e c e c b e a a e e a a e e Mee BIO

HSCI 577-3. Human Metabolism. A a a c e c e e e c e b c e T c e e e e e e f c e c e a e T e e c e a e e e e e e e a a c a a c a a e e e e a c e a f e c e c e Pe BIO Mee BIO

HSCI 601-1. Graduate Seminar. F c e fe a e e f e a e c a e A c e MBS S Me c e a be c e Re e e a c a a c e b bee a e O e a a e e

HSCI 605-3. Advanced Evaluation of the Lower Extremity. C e e a a a c e a e e a a f e b e a a ec e f a e c a J b a a e ab a ec e be c e a e a e

HSCI 608-3. Advanced Evaluation of the Upper Extremity. C e e a a a c e a e a e a a f e b e a a ec e a e c a J b a a e ab a ec e be c e a e a e

HSCI 609-3. Graduate Research Project/Seminar. A e e e a a c e a e e f e e a c c e S e e e a e e e a e a c ec e e a c e a ec f e fac e a f ec e

HSCI 612-3. Seminar in Sports Medicine Administration. F c e b e a a e e a a a e a e a fa e c a a e S b e c c e e c e b e f a a a a a e e O e a a e e

HSCI 615-1 TO 3. Sports Medicine Internship. P e a e e a e c e c ce Fe be e e b c a ae e O e a ae e

HSCI 619-3. Health Care Administration. E a e e ca ca a ec c e ce ea ca e a e e a ca e e A a e ea e a a e e a a a a e e a e ce a a e e a e c a a e e a fe a e e e e Pe MSN MBS a

HSCI 629-3. Health Care Policy. F c e e e e a ee e effec c a e ea ca e c a e e e A a ce ac ce e e e e a ca e e f c a c e e a e b e e e e a e a e e a e ca a a ee E a ace e e e a e e e f e a e e ca c a c e f e a ca e B c ab a e e ac e e e a e c a ce e

HSCI 630-3. Sexual Assault: Implications for Health Care. F c e e a e ce a e a e e e f e c e a a e c f e a ca e T e a a ce f e a ca e a e f c e e a f e c c e ce e e M e f e e e a e e a b c e ca a e e a e Mee NURS

HSCI 631-3. Introduction to Forensic Science. I ce c ca f e c c e ce e a e e e c a c f e c e E e c e a fc ca f e c c e ce a ac ce e f e f e c fe a Mee NURS

HSCI 632-3. Investigation of Death and Injury. E e c e e a e e a f a ea F e c a a f e c a ce e a e c e E e c e c e a e e ce e ce a e e a a Mee HSCI a NURS

HSCI 633-3. Advanced Crime Scene and Crime Lab. E e a e a f a a c e c e c e e e a e a a e e a ce c a c c ce e a e c e e e b f e c c e Mee NURS a HSCI

HSCI 634-3. Psychosocial Aspects of Forensic Science. I ce e c ca e c e c caa e a e ff e c c e ce a e e a a f e a e a e e face be e e c ca effec f a e a e ca e E e c a c a fa a a ca Mee HSCI a NURS

HSCI 635-2. Internship in Forensic Science. T e e a a e e a c caa ca f e c e f e c c e ce A a e e ca be a e f e e e ce c e e e e c c e e a e c ca e c aec e e a Pe HSCI HSCI a HSCI Mee HSCI HSCI a NURS

HSCI 636-3. Legal Aspects of Forensic Science. C a c a fa a be c e a e e a e f e c c e ce e Mee HSCI a NURS

HSCI 637-3. Violence and Human Rights. P e e e e e e ac f e ce ea e e b e f e e a a e e a a a e a l c e a e e f ca e f a fa a c P c e a e f c a a a e c e ce Mee HSCI a NURS

HSCI 639-3. Health Care Ethics and Law. A e e ca ba f e ca e a ec a a a e c e a a e c e e ea ca e e

HSCI 641-4. Forensic Chemistry and Toxicology. I ce e c e ca ce ce ff e c e a e e c e c e c e f b c e c a e O e a a e e e e P e BIO BIO a CHEM

HSCI 649-3. Health Care Budget and Finance. I ce e f e ce a a e e ea ca e e e E a a e e f a c e a b e e e a a e e a a e e e e a c a f a e a e b e a a ac e e a ca a e e e I a c e a a ca e c e c a a e e ce f a a e e be e a e

HSCI 659-3. Clinical Research Application. De e ce c a e a a a f e e a c ac ce l e e e e a e e e a c ce a ac ce e ffe e e a a ec e P e HSCI HSCI HSCI a HSCI

HSCI 700-1 to 6. Health Science Thesis. T e P e Ga a e a

HSCI 702-3. Clinical Research Application. De e ce c a e a a a f e e a c ac ce l e e e e a e e e a c ce a ac ce e ffe e e a a ec e P e HSCI HSCI HSCI

HSCI 930-1 to 3. Independent Study – Undergraduate. A a e a ec c fac e be a a e a f e e l e e e ca f e ec e c e c e e e e e P e P e f c e e

HSCI 940-1 to 3. Independent Study – Undergraduate. A a e a ec c fac e be a a e a f e e l e e e ca f e ec e c e c e e e e e P e P e f c e e

HSCI 999-0. Candidate for Degree.

NURSING

NURS 123-3. Foundations of Nursing Practice. I c e ca a e e ca e f ac ce C ce f a a ec e e c ce a f a e a e e a a e c f ac ce e a e ae e e e P e N a

NURS 208-3. Health Promotion. Hea be a e fe a S e e e e a e a ea be a a ce ac e fe a C ca e a

NURS 210-3. Basic Health Assessment. F c e e e c a e e c f ea a e e De e e e a e a e ac f ea a e e c a ac ce ab P e BIO BIO a BIO c e f ea f fac

NURS 220-6. Fundamentals of Nursing Practice. P e e e e ca f a e a e e f ba c ca e C ca ac ce ab a e a e e e e e e e c a e e e ac f e a e e a e ca e ca ca be ac ce T e a c ca ab a P e NURS NURS 8 NURS HSCI a HSCI

NURS 299-1 to 3. Basic Clinical Practicum. Offe a c ca ab a e e e ce e a c e a e c e c ec ca c ca ea a e e a e ce P e NURS a NURS Mee NURS

NURS 304-3. Patterns of Knowing (RN). A e e f c ce f fe a ac ce f e e e e e e l c e a e f fe a e a e e a a e fe a e Be E C e e a c ce a f a e ce a ca a P e RN a

NURS 305-3. Health Assessment (RN). F c e e e c a e e c f e a a e e E a ce f e e e e f e a a e e ab a P e RN a BIO a BIO c e f e a fac

NURS 310-6. Mental Health Nursing. F c e e ac ce f e a ea S e e e c ca c e a e e e e c e T e a c ca ab a P e A ec e a c e

NURS 320-5. Nursing Care of Adults I. E a e e a a c e c e f ca e f e a E e e ca ca c ce a e c c be a ac C ca ab a e e e ce a e e a c e ca e c a e e e T e a c ca ab a P e A ec e a c e c c e e e HSCI

NURS 321-5. Nursing Care of Adults II. E a e e a a c e c e f ca e f e a C e e e e e ca ca c ce f N Cae f A I C ca ab a e e e ce a e e ac e ca e e P e A ec e a c e NURS

NURS 357-3. Therapeutic Touch and Health. P e a e e a e e e ce e e ba e e ea e O e e ec e ea a e c e e e c ec e e a ce e c e a e a a e f c a e e e ec e

NURS 358-3. Palliative and End-of-Life Care. F c ca e f ec ca a e a P c e f a a e a e f fe ca e a e c a a ca ac a e a e ac ce e P e HSCI c e RN ce e

NURS 370-1 to 3. Partners in Practice I. P e e e e e ac a ac ce a P e ac ab a e a ee e ac e ca e e e e a e e f e ce e c ac a a e e e e e e ca a e a e ab e P e NURS a NURS a e f c

NURS 385-2 to 3. Nursing Externship. E e e e e ece f a e e e e e ec a e ca e e e c ca a e a E a ce c e e c a c ca ec a e a f e ac ce e P e A e a c e

NURS 399-1 to 3. Clinical Practicum. Offe a c ca ab a e e e ce e a c e a e c e c ec ca c ca e a a e e a e ce P e NURS a NURS c e f e a fac Mee NURS

NURS 401-3. Nursing Research. De e af a e a e a f e e a c ce E a b e e c ca a a e e e f b e e a c P e A ec e a c e PSY HSCI a b e a e c c e

NURS 410-6. Nursing Care of Children. E e e e c c a e f c e f f a c a e ce ce a e f a e a b a a e a a c e c a e e T e a c ca ab a P e A e a c e

NURS 420-6. Nursing Care of the Childbearing Family. P e a e e f a c a e e a ca e e e e e ce e c b e a ce E a c ca e c c e c b e a a e a T e a c ca ab a P e A e a c e

NURS 425-3 to 4. Professional Nursing Practice. F c e e e c e ac ce c a b e e e e a e e O e a e e e a c e c e f e a c e e c ca a f e e e e e

T e a c ca ab a P e RN a NURS NURS a HSCI HSCI c e f ea fac

NURS 429-6. Advanced Nursing. S e e c e ece a f eae c e e f e cae fc e a a e eac ea c ca cae e E a a fcaea a aee e f fc e a e T e a c ca ab a P e A ea c e

NURS 430-3. Leadership and Management. I ce a e e ea e a a aee e e e c e fe a e a e e ace a a aa a e e e P e A ec ea c e

NURS 435-3 to 4. Nursing Management (RN). De e a aee e e ea fe a e a e E a e a a aa a ca c e C ca ece e e e e e ea ca f aae e e T e a c ca ab a P e RN a

NURS 440-6. Community Health Nursing. F c e ea a e e e e f cae a e ae S e a fa e a De e c ea c e e c e e Te a c ca ab a P e A ea c e Mee NURS

NURS 445-6. Community Health Nursing (RN). F c e ea a e e e e f cae a e ae S e a fa e a De e c ea c e e c e Te a c ca ab a P e RNSa NURS c e f ea fac Mee NURS

NURS 448-1 to 2. Clinical Capstone – RN. P e e aea e e e a c ca f a c e a e eece e P e RN a a aec ee a e e c e

NURS 449-3. Clinical Capstone. P e a e aea e e e a c ca f a c e a e eece e Se a a e e e fe a e e c ee c ca

NURS 453-3. Creativity and Critical Thinking. C ea bee e e e e a a c ce a a e ce e fa a e a e e ba ea a a e C ca be e e ca a a e a e a ac ce

NURS 454-3. Images of British Nursing: Past and Present. A f e fe a e fF e ce N aea e a f ec e a f E a B caa c e a e ec e bee e T e e f ec e E a P e C e f ea fac

NURS 455-1 to 3. Partners in Nursing Practice II. P e e e e a ce ac a ac ce a A e e e c ca fac a e ea a e e c ca e P e ac ab a ea ee e ac e ca e e e e e Ce c ac a a e e e e ee ca a ea e ab e P e NURS NURS a NURS

NURS 456-3. Lactation Counselor. P e a e e be ac a c e ac ca e A ac a C e Ce cae a e a ec e f e

NURS 457-3. Emergency Nursing. I c a e e e ca a a ac c ea e e ca a ea f e e e c ca e c a e e a a e a ea e fb e e e a e e e c O e a e e f a ca f e ab e P e NURS HSCI a NURS

NURS 458-1 to 3. Basic EKG Interpretation. P e e e ece a f ba c e ec ca a E G e e a A ba c a bec e e T e c ca f c e a a e b e e E G ca fac e P e BIO a BIO

NURS 459-3. Advanced Practicum: Clinical. E e c e e e c e c ca ace e P e e f a a a c e c ca c ce C ca e e e c e e e ce a e e f ac ce ec c c a e P e A a ec ea c e NURS b e f e c

NURS 460-3. Critical Care Nursing. P e e c ca ca e c ce a e e be e e a e e e ac e c e N ca e f e c ca c e be a e e b e Ba c a a be e e e O e a e P e A e e c e NURS a NURS

NURS 462-3. Dynamics of Unity. E e e c e c a c a e f c T e e fWe c e c e e e a f e e a a a e e e e f c e f a a a e a e f f a a ba e c P e RN a Mee NURS a HSCI

NURS 463-3. Psychophysiology of Holistic Health. P e a a a c e f a e ca e e a a ca e c e a E e b c e c a e a e a e a e e c e c e a e e a c e a e a c e e f e c Mee NURS a HSCI

NURS 465-3. The Art of Holistic Nursing. E e e e fe e c a a f a ca e a T e e f e c f e a e c e e e ca c e f T e c e e f a a a e e a e Pe RNSa Mee NURS a HSCI

NURS 467-3. Holistic-Praxis: Therapies of the Imagination. A e a e e a e e c ea a e c e a e c e e c ac ce T e f c e e a e a c a a ca f e e a e c e f e e e a e a c c a a Mee NURS a HSCI

NURS 468-3. Praxis: Therapies of Human Energy Fields. T e e a a c ce f e a a e c e a e e e e e a a e e e b a e e e e a c a a c e c a e a e e e e e f e e a e e e e a a T e e e c a e a a e e c e c a e c a a c c a c a f e e a e e e Mee NURS 8a HSCI

NURS 469-2. Holistic-World Views of Health and Healing. E e a c a a e a a e a Ta a C e e e c e A e e a S a a C a e Na e A e c a e a a e e c c e e a a a e a e e a e a e e a e Pe RN a

NURS 489-1 to 3. Special Topics in Nursing. E e c c e c e a e f a e c c S e a e e a c e a a e c c a e e a c e e e a e Pe Pe f c e e

NURS 540-3. Nurse as Healer. A e a e e c e a c c e e f c a e a c a e f e C e c e e a a f c e c a e a c

NURS 601-3. Models of Clinical Supervision. I e e a e f c c a e e a e e e c a e b e e e c a a e E e e e c a b e a e a e f e I e a f a e a e c c a e e b e e a e

NURS 610-3. Philosophical Foundations of Advanced Nursing Practice. E e e e e c a a c f a f a f a c a a e e a C e c e e f a a a e a a f e e e c a a a f a a f a f e f c a e a a c e Pe Ga a e a e f c

NURS 611-3. Advanced Nursing Practice and Health Care Policy. F c e e e e a effec c a e e a c a e c a e e A a c e a c e e e e a e a c e e a e a c e e a e b e e e e a e a e e a e c a a e e

NURS 612-4. Nursing Research. E e e e f c e e a e e e a a e ab e a ba f e e a c a a c e a c e A e a a a a e c e a e f e e e a c c e a c e f b e f e e a c Pe NURS

NURS 614-2. Dynamics of Holistic Practice. E a c e e a a e e c a f e e a fc e a a c c a E a e c c e a a e e e a c e a a e c a e e e e f e f a a e e c b e I c a e e e f e c a a a c Pe A a a e a c e

NURS 615-3. Clinical Nurse Specialist Seminar. H ca e e c a a c c e a ba f e c ca e e c a CNS e b e e e C ab a e a be a a c e a c c e a e e e e a e a a c f e e a e f Pe NURS

NURS 619-3. Educational Measurement and Evaluation in Nursing. T e e f e a e e a e a a a e a a e a e a e a a e c f c S e a e a a e f e a e e a e a a e c e O e a e e f e a a e e ca e a a ca e e a e a e a a a e a e a a e a f e a a e a a e f c a a Me f c a a e a a a b e a e e Pe BSN a a e e a e e

NURS 620-3. Curriculum Development in Nursing. I c e e c e fc c e e e a e c e e f c a e a a c c e e e c e a c e

NURS 621-3. Transformational Teaching Strategies. P e e a f e ca ca a e a e e fa ca c c E e a a c e c c e f e a c a e a e a e a e e S e e a a c e c e f effec e e a c a e e I c e e c e f e a c

NURS 622-3. Collaborative Health Care Management with the Elderly. P e e e e ca e e e e e a a e ca e fe e a Se f a f a a a c e a c c e e a c a e e a a e f a e a f a e f c ab a e a c c e Pe NURS e c e e

NURS 623-3. Physiological Problems of Aging. E e e a a e c fa f a ca e e c e Hea f a e a a fa e bea e e Ma a e e f a c e e a be be e a ca c e e C a a e c ffe e c e a e e c a e

NURS 624-3. Managed Care Environment. E e e a a e ca e e e a e a a E e f a a e ca e a ca e a a e

e e e f f e ca e e
e e a c ba e ac ce F c e
e c a c ab a e c a acc ab

NURS 625-3. International and Cross-Cultural Health Care. S f eece e a a ea ca e a
e T e ecaa c ce a a ec
fc c a ea ca eaae c e Ta e
E a ca a c ee a aee e
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NURS 626-1 to 3. Topics in Nursing. De e f c
ee a f eece c a a ce
ac ce

NURS 627-3. Family Theory and Intervention.
E e fa e e a e a ca
a a ce U e a a e fa e e
e a a ea a ca e f eece fa e A e
a c e a c fc a fa c e
a e a e fc a e e ca e ffa e

NURS 628-4. Clinical Pharmacotherapeutics.
I ce e a a ce ca a a e e fa a e
f e e c a e c e a ca e
e E a e b ac e e ca c c
e e a c e a e a A e a a c e a
e c a ac e a a e e fa e a
a ca e e

NURS 629-3. Resource Management: Budget and Finance. I ce e f e ce a a e e
a a bea e ea ca e e e E a
e a e e f a ce a b e e e
a a e e a a e e e a c a f a
e a e b e a a e ac e
ea e e Mee HCAD

NURS 630-3. Sexual Assault: Implications for Nursing Practice. F c e e a e ce a e a
e a e e f e c e a a ec f ea
ca e T e a a ce f a e f c e a
f e c c e ce e e M e f e e e
a e e a b ce ca a e e a e Mee
HSCI

NURS 631-3. Forensic Nursing. I ce c ca
f e c a e a e e e c
a c ea f e c e E e
c e a fc ca f e c a e
e f e f e c e a a ce ac ce
c ca a c ba e e Mee
HSCI

NURS 632-3. Injury and Death Investigation. E e
c e e a e e a f a ea
F e c a a f e ca ce e
a e c e E e c e c e a e e c e
e ce a e e a a Mee
HSCI a HSCI

NURS 633-3. Crime Scene and Crime Lab. I ce
e e e a e a f c e c e e e e a
e a a e e e a e c e c
a c c e a e c e e e b f e
c e e a ca e c e c e b
f e c e Mee HSCI a HSCI

NURS 634-3. Psychosocial/Legal Aspects of Forensic Science. I ce e c ca e c e
c ca a e a e ff e c
a e e a a f e a e a e
e face be e e c ca effec f a
e a e ca e E e c a c
a fa a a ca Mee HSCI a
HSCI

NURS 635-2. Internship in Clinical Forensics. A a e
e a c ca a ca e c e f e c
A a e e ca be a ef e e e ce
c e e e e c c e e a
e c ca e ca e c a e c e
e a P e NURS NURS NURS
NURS a NURS Mee HSCI HSCI
a HSCI

NURS 636-3. Legal Aspects of Forensics: Civil and Criminal. C a c a fa a be c e
a e e a e f e c e Mee HSCI
a HSCI

NURS 637-3. Violence and Human Rights Issues.
P e e e e e ac f
e ce e a e e b e f e e a
a e e a a a e l c e a e e
f ca e f a fa a c
P c e a e f c a a
a e c e ce Mee HSCI a
HSCI

NURS 639-3. School-Based Nurse Care. Ma a e e
f e c a a ce e fa a c c
l c e e a c e a a e e a
e ca fa ce e e ca e a e e a
e a e a e c e c a e a c
c b e a e a a a e e

NURS 641-3. Complementary Healing Methods
P e e a e e f e e e ca b a e
a ca e c e a e fc e e a
e a e T e e f We e c e c
a Ea e e ca e e b e e a e
a a b a f e a c e e a e e c e
a e a e a e

NURS 642-3. Dynamics of Unity. E e e c e c
a c a e f c T e e
f We e c e c e e e a f e e
a a a e e e e f c e f
a a a e a e f f a a
ba e c Mee NURS a HSCI

NURS 643-3. Psychophysiology of Holistic Health.
P e a a a c e f a e ca
e e a a ca e c e a E e
b c e c a e a e a e
a e a e e c e c e a e e a
c e a e a c e b effec Mee
NURS a HSCI

NURS 644-3. Advanced Assessment of Holistic Health. Fac a e e e c a a c e f
e e e a e e f e e
H c a e e f c e
a a fca e a ac ce a e c e E a
a c e e f e e c e e e a
e b a a

NURS 645-3. The Art of Holistic Nursing. E e
e e f e e c a a f a ca e a
T e e f e c f e a e c e e
e c a c e f T e c e e f
a a a e e a e Mee NURS a
HSCI

NURS 647-3. Holistic-Praxis: Therapies of the Imagination. A e a e e a e e c
e a a e c e a e c e e c
a c e T e f c e e e a e
a c a a c a f e e a e c e f e e
e a e a c c a a Mee HSCI
a NURS

NURS 648-2. Holistic-Praxis: Therapies of the Human Energy Fields. T e e a a c e f e a
a e c e a e c e e e a
e e a a e e e b
a e e e e a c a a c e c a
e a e e e e e f e e a e e e e e
a a Mee HSCI a NURS 8

NURS 649-3. World Views of Health and Healing.
E e a c a a e a e a
T a a C e e e c e A e e a S a a
C a e N a e A e c a H e a a e e c e
c e e e a a a e a e e a e a e e a e e

NURS 650-3. Forensic Photography. De e a
f e a f e c c e c e a e a c a e e
b a c c e a e c e a c a e f e c
a a e c e c e e e a e
a a b a Mee HSCI

NURS 651-3. Perinatal/Newborn Health Assessment, Stabilization and Care. P e e b a f a a c e
a c e c a e e c e a e e e a e e
a b a a e a c a e e e f e a a a
e b a e f a e C a a c c f e
e e a e e a e e
a c e P e C c e NURS NURS
NURS

NURS 652-4. Pathophysiology of the Newborn.
S e f c c e f e b e a a
a a a e a e e e c c e
e a a e f c e e e a a e e f a e
c e f e e b e a e b
P e C c e NURS NURS NURS

NURS 653-3. Clinical Management of High-Risk Newborn. I e a e e a c b a e e e f
e a e e f e e b c a a c c e
T e e face f e a a c e a c c e e a a
e a e a c e e a e a a e P e
C c e NURS NURS a NURS

NURS 654-4. Neonatal Clinical Pharmacotherapeutics. I ce a a c e c a
a a e e f a a e ffe a a e a a c
c a e c e e a a e b e
l e a e a e f a a e e
a a c e a e c a a c e a a e e f
a e e a a c a e e P e C e f
c c e e a NURS NURS a
NURS

NURS 656-3. Women's Health Care Issues. P e e
a e e f e e c e e e e e c e a e a
e E a f a c a c a a
c c a f c e c e a e e a
e a e a c e a e c a
e e a c a e f e a a e e a c a e
e

NURS 657-2 to 3. Role Transitions. De e f c e
c a e e a c e a e c e e a a c e
a c c e c e e e e e e e Fac a e e
e a f a a e a a c e a c c e e e c a a
c c e a e e c c a a c c e P e NURS
NURS NURS a NURS

NURS 658-3. CNS: Acute Care Management in Advanced Practice Nursing. F c e a a c e a c
c e a e e e c a c e a e a
e a c c c a a a e e P e NURS
NURS NURS 8 NURS a NURS

NURS 659-3. CNS: Chronic Care Management in Advanced Practice Nursing. F c e a a c e a c
c e a e e e c c a e a
e a c c a a a e e P e NURS
NURS NURS a NURS

NURS 660-3. Palliative Care and Advanced Practice Nursing. A a e c e f a a e c a e c c
e e e a e a e f f e c a e l e a e
c c e a c e f e a a a e c a
a a e a e e a a c c a
e

NURS 661-3. Primary Health Care of Childbearing Families. P e a b a f e a c c e f a a c e
a c c e c a e e a f e
e a e e e c b e a f a F c e
c e e e a e e e e a e a
e e e c a e f e c b e a f a a
e a c a e e

NURS 662-4. Primary Health Care of Families I. A e e a a a e e f c
c e e e a e e e a
c a c a e c c e a e a e a c e
A c a f e e e a c a a c c e e a e
f a a c e a c c e e a e f a e
a c e e c e a f a e P e NURS
NURS NURS 8 NURS a NURS

NURS 663-2. Community and Rural Health. P e
e e e e a e c c e

a e e ca fa e e e a c a a ea T e a e a f c e e a f a f a a ce ac ce c a a e

NURS 664-4. Primary Health Care of Families II. T e a ca f e e a c a acce e a e f a a ce ac ce e e a e fa e a c e e a fa e c e a e a e fa e P e NURS NURS NURS 8 NURS a NURS Mee NURS 8

NURS 666-3. Health Promotion and Disease Management for Clinical Nurse Specialist. P e a ba f a a ce ac ce e e a f e a e a e e e ce fc e ac ea ca e e E a e ea ac e e ca c ca e a a ca fa e P e NURS NURS a NURS 8

NURS 667-3. Primary Health Care of Families III. F c e c e e e a e e e a e e ecaef c bea a a e a cfa e a ea ca e e E e ac ea c c ea e e a ca f e a e e a c P e NURS NURS a NURS 8 Mee NURS

NURS 672-1. Assessment Validation. Va a f ea a e e Rec e e f e a e bee e ea a e e e a f ea

NURS 673-1 to 4. Advanced Health Assessment. I c a e e c e a ec e fa a ce ea a e e ac e fe a a a f a a ce ca e C ca ac c e e a a ce ea a e e a e a e e f a a a ce ac ce P e A G a e MSN P a

NURS 674-3. Advanced Pathophysiology. S e e a cc ce a e e ea e e c ce e a aef e a e ca e e a a P e f a e a e e f a e e c ab a e e ac a ca e a a e e fc e a e a a e f e ac e a e a

NURS 678-4. Primary Health Care of Adults I. E e e e a ac e ea ee f a e a F c e c e e e a e e e a e e ecaef a e a a ea ca e e P e NURS NURS NURS 8 NURS a NURS Mee NURS

NURS 679-3. Primary Health Care of Adults II. E a f e ac e a c c e a e e f a e a ecae a e ea ee fa a F c e c e e e a e e e e a e e ecae P e NURS NURS a NURS 8 Mee NURS

NURS 689-1 to 3. Topics in Nursing. De e f c e e a f e e ce c a a ce ac ce

NURS 700-1 to 5. Research Thesis. P e a f a a e e a c a e e e a c ce e e e ec fa a c e e S e f e e a e e ce a e a f e e a c ce e ce a a e a c c a e a c e P e NURS a e a fac c e fa f c e e MSN a

NURS 701-3. Advanced Reflective Practice. E e e e c a a cf a f e e c e ac ce ca e ec e P e c e f e e c e a ce a a ce c e a e a ca e e e e A a ce ec a f a e a c e a c ca c e a c c ca ec e be c e P e A DNP P a e f G a e D ec

NURS 702-3. Clinical Research Application. Offe e e e a e e c ca c e e f ce ca e ca a a a e e e ce l c e a a e a a a ab e f e e f e a c ce a e a c c e P e NURS NURS a NURS

NURS 704-3. Health Care Administration. De e e f e a ca e a a Rea e c ca a ec f c e e e a a e e De e a a f e f a ce c a a e e a a e a a a e e a e Ee e fac e e e a e ce a a e e a a e e e f e e ce a e a e e Pe NURS NURS a NURS Mee HCAD

NURS 705-3. Health Care Ethics and Law. P e a a a f e c e fe ca a a e ac e ea ca e e e e a e f e ea ca e a a S e a a e fe e a a a e a a a e a e e e e ca e a Mee HCAD

NURS 706-3. Health Care Administration II. A a a f e a e a a e e a a a e e A e a f e e c ca e e a ca e a a E a e e e ca a a a ca ac e c ca e a e a a e e a a a a e f a a a e e ec e

NURS 707-3. Population-Based Health Care for Improving the Nation's Health. E e e e ca ca f a f e e c e ac ce a ba e ea ca e P e c e ac ce a e ce fe e e a a e ec b a c c e a c ec c f e a ca e e e e A a e e e a cc a a ea c ce a a ab f e a P e A G a e DNP P a e f G a e D ec

NURS 708-3. Clinical Nursing Scholarship for Evidence-Based Practice. E a e a b a a e f e f c e e a e e a E e e e c e ac ce e ce e e e c f a e E a ace e e e e a e a a e a a f c e e e a c f e f ca e P e A G a e DNP P a e f G a e D ec

NURS 710-3. Organizational System Leadership and Quality Improvement. E e e e ca f a f e e c e ac ce a a a a e a e e e c e P e a e e f c e f a a a e c e a e e a a e e C e f a e c e c a e fe a e f e a ca e a a a a ce ac ce be a a e P e A DNP G a e N P a e f G a e D ec

NURS 771-3. Clinical Practicum in Nursing Education. De e a e c e e ca e a a e e e e e f c c ca e ca S e a fac e ce a c ca a e a e e e a e e P e ca a e e e a e e c c c ca c a e c e e a f a P e NURS NURS a NURS

NURS 772-3. Classroom Practicum in Nursing Education. A e c e e ca e a a e e e e f c e ca e S e a fac e ce a a e a e e e a e e e e a e e P e ca a e e e a e e c c ca c a e c e e a f a P e NURS NURS a NURS

NURS 777-2. Role Synthesis in Family Nurse Practitioner Practice. S e c e a b e e e e e e f e fa e a c e E a e c ab a e a a a e a a a a a e e E a a ce e e e e f a e e a c b e e e e e a a e a c ce e P e NURS NURS a NURS

NURS 779-7. Woman's Health Practicum. De e ffe e e e e a e e f a e a a e e e e a e e a e e a e e e c fa a e ece

NURS 780-5. Neonatal Nurse Practitioner Clinical Preceptorship I. P e c ce a e c ca e e e ce a e a e e e f e e e f c e e f e e a a e a e a e b f e e c a a e e a ca e f ea a a c e e b P e NURS NURS a NURS

NURS 781-5. Neonatal Nurse Practitioner Clinical Preceptorship II. P e c ce a e c ca e e e ce a e a e e e f e e e f c e e f e e a a e a e a e b f e e c a a e e a ca e f ea a a c e e b P e NURS NURS a NURS

NURS 782-1 to 5. Clinical Specialist Practicum. P e e e a c a a ce ac ce e a a e f e A a a ce e e c a e c ab a e e a a e e e c a e fca e c e a e a ea e e e ece P e NURS NURS NURS NURS NURS 8 NURS NURS Mee NURS 8

NURS 783-1. Community Assessment Practicum. A ca fa e e ce e f a ba e a e e a e c cc a a a e a e a C ab a ea e e e ece a a e ea e a a a f e f a f c ba e a a ce ac ce P e NURS NURS NURS a NURS Mee NURS 8

NURS 784-1 to 3. Primary Care Practicum. Offe e a c ce e a e e e a e e f a ca e P f a a e ca ca e a ece e e c e a e ce a a a e a c a e a a e fc ca e P e NURS NURS NURS NURS 8 NURS a NURS A a NP a ac ce CPR ce e be b e a c e c e be a e Mee NURS 8

NURS 789-1 to 9. Primary Care of Families Practicum. T c ca a c c a ab c e e e ffe e Fa N e P ac e e a e e a e e ba e fa f c e e c e T a c c f c e e a ca fc e e e a e e e a e e e ca e f fa e a a a e ca ea ca e e P e NURS NURS NURS NURS 8 NURS a NURS A a NP a ac ce CPR ce e be b e a c e c e be a e Mee NURS 8

NURS 790-1 to 3. Administrative Internship. P e a a e e e ce a a e ece P e f a f ac c P e NURS NURS a NURS Mee NURS

NURS 791-1 to 3. Administrative Practicum. P e a a c e a a ce ea ca e a S e c a e c ab a e e a e e c a ea ca e a a c ab a ece P e NURS NURS NURS NURS a NURS Mee NURS

NURS 930-1 TO 3. Independent Study – Undergraduate. A a e a ec c fac e be a a e a f e e l e e e ca f

eec e c ec e e e Pe Pe
f c e e

NURS 940-1 to 3. Independent Study – Undergraduate. A ae a ec cfac e be a aea f ee l e e e ca f eec e c ec e e e Pe Pe
f c e e

NURS 950-1 to 3. Independent Study – Graduate. S e e aea aea f ee e e f ea ca e e a ce fa fa e be
Pe Pe f e fac e be

NURS 960-1 to 6. Independent Study – Graduate. S e e aea aea f ee e e f ea ca e e a ce fa fa e be
Pe Pe f e fac e be

NURS 999-0. Candidate for Degree.

GRADUATE SCHOOL OF PUBLIC AFFAIRS COURSES

CRIMINAL JUSTICE

C J 1001-3. Introduction to Criminal Justice. De e ea e e f ec a ce ce a ec a ce e e ea C ce f c e e a ce a ceae c e a e a e e fc eca a aeea e S eca e a ace ec e f ec a ce e e ce e ec aa efe e f c e ca a e e fc ec

C J 2041-3. Crime Theory and Causes. P e a e ea e f e a ea ca e fc ea eff f ec a ce e e c e e f a c ec be a T c e e a c caa aa fa e e fc eca a c a e a a fb ca c ca ec ca c ca e ec e a e a c ea e a ce

C J 2110-3. Drugs, Alcohol and Crime. a e ca c ce a e f a c a fc e e a e fa a c ea ec ece a e c cac e fc e a US c D c e e ea be ee a ac ab ea c a ffe c e caa a c e a c a ce e e e ea b a ce

C J 2210-3. Probation and Parole. A a e f e a ea ec c ee e e f ba a a ea c ec a a c c e Pa c a a e a e a a e ea c e e c ea fac a c b e e c ce f c e f ba a a e a e e a ec a c e a ec c ec ce

C J 2320-3. Police-Community Relations. F c e e cea c e e c e C e c e c e a e e f e a c ce a e e a a c e bea a f a e a f ea ac a ea f e c T e ea e e e e e e ece a a a e e f ea a a e a a a e fc c a e e a e

C J 2510-3. Juvenile Justice Administration. E a e e e e e ca e a ea f e A e ca e e ce e a e ca fac a a e e e ca a ea e f e e ffe e E a ace e a e f e e a a e f ea f ffe e

C J 3100-4. Criminal Justice Research Methods. I ce e ef a f e ea c e c e c e a ce e ea c e a a c ec a e e e a a e f e e aa c caa ce e e A c e e e e e a a e e e a e ea c e bab a bab a ec e a c c f ca e a e e f e ea c e Mee SOC

C J 3150-4. Statistics for Criminal Justice. Se e a a c e c e a fe e a a c a c e a a fc a c a ce a a l c e ba c ce e f e e c e a a e e a a a a a fc a b a e e e a a be E a ace e e a a f e ea c b e a e e e fc a c a ce Mee SOC

C J 3160-3. White-Collar Crime. I ce e a a e f c a e c e c a e a e e a e e f e c a c e E a e e eba e e e f e c a c e e a e e f e c f e c a a c a e c e c e c e e e a e a e c a c a a e e e e f c a a c e e c c c a a e e ffe e

C J 3220-3. Community-Based Corrections. F c e a e c ba e a e e f e a c a ffe e C e c a a e a e e c e c e c e ba a a e a a c a c a a e ce e e c c a f a e a b ca a

C J 3250-3. Violent Offenders. C fa ca e e f e ce A e ca ce C e c e a e a a f e c e a e e ce a e a f c a e a e a a e a f e e e ca ca e a e e e a e e f ac f e ce

C J 3310-3. Police in Contemporary Society. E a e a e f ce e e c e a c e a e a c f ce e a c e e e f e c a ce e Se c a a e a c e e e a e ce a a e ca ca e e e e a c ea a e

C J 3420-3. Pleas, Trials, and Sentences. F c e a a fca e a e a ea a a e e ce C e c e a e a a f e b a c e fc a e e c c e e e f a c e e e fc fe fa a ce e a e a e fc a a c c e a a e

C J 3540-3. Crime and Delinquency Prevention. P e e a e e f e a e c e a e e c e e b f c ca a c a ce f e C e e e a a e c a b e a a c e e a e e a Re e e e e ffe e a f e e a e a c e c a a fe ca e a e e e f c e e a

C J 4042-3. Corrections. C fa e e f e e f e a c e c A e a c c e f e c ca e a a e e e fc e c e e e c f e ce c ffe e e e e e c e c a a a e a e c e c a ce e a e ca a e e f e e e a e c e e ce e f e e e c e c a a

C J 4043-3. Law Enforcement. P e e a e e f e e a ce a A e ca ce a A e e f c e a e f ce a a a a ce a e f e a be e e e cea e b c ce a e ce e a c e a c e

C J 4044-3. Courts and Judicial Process. E a e e ba c f c c e a a a f e fe e a a e c e e e ca a e e e c a c e A f c e e e ce f ca be a e c ce be a e e c efe e ce e a c e a ce e c a c caa ca e e

C J 4120-3. Race, Class, and Crime. E a e e ea be e e ace ca ca a c e A e e e e ca e a a e ca e e a c a a e fc a be a a f c e ca f a e a a e e e a c e e e e e a c a e e a c f a ce ca a c e e e Pe CJ

C J 4130-3. Poverty and Crime. I e a e c a a fc e a e c a ce e T c c e e ca a e e ca a a f e e c cca e fc a be a e c a c fc e a ce a e e fc e e f c e e ce

C J 4140-3. Domestic Violence and Crime. T c e e a e e c a ce e e e a e a e e ce b f c e e a c be e e c ffe e a e a c e f e c a ce e a e f ce e a e ca B e e a c f a e a e e ce c e a e e e e e e a c a c ca e a e ec a ce e e e e ce a a e

C J 4170-3. Victim Studies. I e e ce c fc e c a f c e e ca e a a a ca a e e ffe a e a fc a F c a ce c ffe e e a e a c be e e c a e c a ce e a c ec be e e c a e ca a T e e e a c e a a c ca e a e e a c ca e a e

C J 4180-3. Comparative Study of Criminal Justice Systems. A a e e a c fc a a e ca e e c a ac c e Se ca e a a ce e e fc aa e e a a e a e e a a ffe e ce c e a ce e a a c e a c a ce a c e a e e e Pe CJ Mee CJ

C J 4230-3. Corrections and Treatment. E a e e a ca e e e f a a A e ca Pa c a a e e e ac f ef e e e e f ce a e c ec a e a e a a a e ac ce f e

C J 4410-3. Criminal Law and Constitutional Procedure. F c e b a ec a a a c a f e acc e c a cee C e c e e a a ec f e e a a a e ce e a e a e e e e a b fe e ce c

C J 4430-3. Law and Society. I ce e e c a f a S e a e a bec e fa a ca ce ce e ec e f e a e a e e a ce a e ac fa be a a c a e a e fc a be a a ec a ce ce A e ca ce A a c c e e e f a a e a c a a e e a a e e a e e a e e f ca ce ce ec

C J 4440-3. Courts and Social Policy. I e e fe e e a e e a a f ec e e e f e ca e a a f a e b ca a e ec a e e ca fc a a a ca c l c e e f c a a a c e ec a cea a e ce a b a e ca c

C J 4520-3. Gangs and Criminal Organizations. T ace e a ca e e e f e ac e a a e c e T e ec e a e e f e a e A e ca ce a a e f e c ffe e f a b a a c c e e b e a e c e fe c e ca b be a ca c

C J 4530-3. Families and Intergenerational Crime.
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C J 4600-3. Special Topics in Criminal Justice. T
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C J 4960-3. Criminal Justice Internship. I e
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C J 5000-3. Law and Social Control. P e a
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C J 5100-3. Administration of Criminal Justice.
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C J 5110-3. Criminal Justice Planning and Evaluation.
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C J 5120-3. Nature and Causes of Crime. A a e
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C J 5320-3. Police Administration. T c e c
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C J 5321-3. Research Methods in Criminal Justice.
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C J 5361-3. Advanced Seminar in Criminal Justice.
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C J 5510-3. Contemporary Issues in Law Enforcement.
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C J 5520-3. Corrections. P e a c ca e a a
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C J 5530-3. Administration of Community-Based Corrections. A a e e e e a a c e f
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C J 5540-3. Juvenile Justice Administration. E a e
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C J 5550-3. Criminal Justice Policy Analysis. P e
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C J 5551-3. Judicial Administration. A a e e
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C J 5552-3. Criminal Justice Ethics. T e a ffe
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C J 5553-3. Women and Criminal Justice. T e a
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C J 5554-3. Criminal Justice Reform. T e a
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C J 5560-3. Comparative Criminal Justice. Se a
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C J 5571-3. Social Organization of Crime. T e a
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C J 5572-3. Race, Crime and Justice. T e a
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C J 5573-3. Organized Crime. T e a e a e
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C J 5574-3. White-Collar Crime. T e a e
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C J 5575-3. The Mentally Disordered Offender. T
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C J 6600-3. Special Topics in Criminal Justice. T
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C J 6910-3. Field Study in Criminal Justice. F
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C J 9400-1 to 3. Independent Study in Criminal Justice. C ffac e e e a c a a e a
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C J 9500-1 to 3. Independent Study in Criminal Justice. Aff e e e e e
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C J 9990-0. Candidate for Degree.

PUBLIC ADMINISTRATION

P AD 340-3. Public Administration and Homeland Security. E a e e e fa a e e e ea e A e ca b ca a be a a a ec e a a e e E a be ea ec c e a ce f ea efe ea US N e C a a e e e a a c e ac Pa c a a a e a f ea ec a ea efe e f e e ec e f e a a a e e ae De a e f Defe e US N e C a a e De a e f H ea Sec P e ENG a ENG e ae

P AD 440-3. Understanding Terrorism. U e a e ce f e ca e ea e a e c ea e ea A e ee be e a e a f e ce f ea a a e e e e effec e e f ee ee a efea e ea T c a c e e f e c f e e a a a c e e a a ea f a e c a a e c ea

P AD 441-3. Introduction to First Responder Organizations. S e a a e e ce a ac ce f a e ce c efe e a ca e e c e e e c a a e e ea e e e c e ca a ce a a E a be ea ec c e f a a f a ea be ee e e a e ce a e a e c ca e e e ac e a ea fe e a a e ce e ea ec T c a c e ca e f e e a e ce c e a f ec a e e e e e ce a ea

P AD 498-1 to 3. Special Topics in Public Administration. C e a a e f eca c ee a b c a a C e a be a e f c e e a ce e bec a e e ea e

P AD 5001-3. Introduction to Public Administration and Public Service. I a e f a ca e e ce a a e f e e f b c e ce a a a fe a A e ca ce I c a e e e a f ac e a c e e a e a ea c e f bc e ce T c ee e ec ea f A e ca b ca e a a a a e c e a a a e a e e f e bc e ce ac e ec a e c e a e

P AD 5002-3. Organizational Management and Change. U e e e e e ce a e c ee e ce a ec a ac f e b c e e b ca a face c a e a e e fea a a b ae f a ec a a e fe ca e e fc ca effec e a f a a ec a f c a e T c e ea e ee e

P AD 5003-3. Research and Analytic Methods. T c ee a e e eac e e a e e a e ee b ca e Me c ee c e e f a e e c a ea e f a e eac e eec a ae e a a c ec a a ae e a a a a a T c c e ca a a ec e e e e e a e a a c c a e c a e e e a e S a ca Pac a e f S c a Sc e ce SPSS Mee C J

P AD 5004-3. Economics and Public Finance. U e ec c e e b ca ae ec e a ea ca f e ce e b c ec I ce ec ce f b c a e fa e a e e a e T e effec f a a a b e c e a be a a e a a e A

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P AD 5005-3. The Policy Process and Democracy. T c e ffe a e e ca a ac e a e b c c ce ec e fa e c a c e P ee e e ca e f e c ce a e b c affa be c e

P AD 5006-3. Ethics and Leadership. P ace a e ae e b c b a e b a e e e ee a b ca a ae c a face e ca e a e a T c e b a a e e ca be a e a e fac a a e b c e a l b ee ca f a e f e f fa e c e e e e a e ac ce f b ca a a

P AD 5007-3. Qualitative Research Methods. T e a f c e a a e e eac e a c a e e ec e c a b e a e e a c e a a T e a bec e c e ac ca e a a fe a c e ac a a e e e ec e S e ae e e c c a e eac ec P e P AD

P AD 5110-3. Seminar in Nonprofit Management. T c e e a e e f e c e a c ce a a e e a a e e T c c e f e a e ce a a e e a a a e a a a e ee a a e e a e c S e a ea e a c e a e a ce f e ec

P AD 5120-3. Nonprofits and Public Policy. E a e e e ec f b c c a e a e a c eac affec e e a c e c e a e a e e ec c a c e f f a e a f e ec e f a ca a a e e e e f e a a a f e e e ce a e e c a abec ce c a e a ce a ef e f e ec A e ae e a a e affec e e c ce a b c ce b e efac a a e ca e e a cac a e e f e ce a e e f ca e e c a C R a ee e

P AD 5130-3. Collaboration Across Sectors. T e b f e ee ec c ec c e c ea e a e a a a e eac e a c ac f e e e f e ce T c e f c e c ab a a a e b c a f a a a e e ac e e b c a Pa c a a abe a a a e a ce f eac ec a e affec c e e c ac a a a a e eca facc ab ef ce c a effec e e be e a e

P AD 5140-3. Nonprofit Financial Management F a c a a a e e e f ec ec ee ce f effec e a a e E e a a ee e a a a ce T c e e a a ca a a e e f e acc a b f c a a a f e ea a a e e a ea ece a f a ca a c e ce a f a a e a ec e ca ea f e a a T c c e e acc c e e a a a ca a e e eb e e e e ce ca a a ba ea ea e a e e c a a e a e a e b a e f a e e

P AD 5150-3. Understanding and Achieving Funding Diversity. T c a e e e ac ee e e e f e a e ff ce a a abe a a e f a a e e a a a a c a e a

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P AD 5160-3. Nonprofit Boards and Executive Leadership. T e a e a e b e fa a b a f ec a e ce f e a e fe e T c ee e e eca e fa b a f ec a f a e b a e e b c c F e e ec e f a a a be a a e ec ee a e e ea e ea e a be ee b a e be a ee ec e ec T e e a a c e ac a a ea a f ffe e e e a e e f a e a e f b a c e e fa b a ac e effec e b a ee e ea f ab c ee a e b a e f a a e eca bec a e

P AD 5170-3. Strategic Management for Nonprofit and Public Managers. T e c e e e a b ca a a e e effec e e f a e c a a e e a ec e S a e c a a e e a a a a e b b e be ee a e e c e a f e a e ec T e c e eac e e a a a a a e c a a e e ca ab e e a c a c f b ca a a

P AD 5180-3. Social Entrepreneurship. T e a e ff a e e e e a ec a bec e c ea a a a a e a ea e ef ce c effec e e a acc ab T c e e e b e a e e e e a ca be c af e a e e e ca be S e be e e e e e e a be a c a ec a e ce b a a e a a e ff ec e f b abe ca e e e

P AD 5220-3. Managing People in Public and Nonprofit Organizations. S a ac ce f a e ce a a e e b effec e a a Re e e ce f af a a a a e ee f e a e f ec b a a ee c e a ec a e a e ea ca c ee a eec e ee a a e e a fee bac e ee a a ff a C e a e c ce a a e a e b a e a be e e e

P AD 5260-3. Managing in a Multicultural Society. U a e a ac e a a ea e ec c a e e f e e ae e b ca a a E e f a a e a e e a e a a a e

P AD 5262-3. Leadership Workshop. T b f c e e f effec e ea e e a a a e a e abe a c a ea e e ea e e a e e e ce e M e f effec e ea e a e e a e a a e e ec c e f e a c a c be ee ea e a a a e e be e e e

P AD 5265-3. Group Dynamics. E e a ce e a e e e a e e a e a c a a e f c e ace ea T ec e e a c e e e a e ca e a a ea a e a a a e a a a a a ca a a ca T c c e a e f e e e ea ce e c c e a e ce ec a ea e e be a ea a e ac f a a ac e

P AD 5270-3. Management Development. W af c ebaa ce be ee e e aa fe a fe c e ee e f a a c e f c bc aa e ca c ea e e effec e e C e c e a e a a e e ea be e aa e e c e a e a e effec e e ec a a ec a f c ea e c e a a f c e ab e e a a ec ce c e e

P AD 5271-3. Managing Conflict and Change. E e e ce fc a e a a c e a ce a ec c aa e e a a T e e f ee a ca e e a e a e e ce e a e e a ac ca fa e f a ca ea aa c ca ca e c a e

P AD 5310-3. Public Policy Formulation and Implementation. I ce e e bc c ce ec ce a e f c f a a e e a E a e a e e a ec ec e f ca ec ca a e e U ca e e ec e e e c e a a ca be e e e e e ef ce c a effec e e f b c c e a a Pe P AD

P AD 5320-3. Public Policy Analysis. P e a e e a ca a f c a a e Tec e a c e be e c a a c effec e e a a a e e a e Pe ECON P AD

P AD 5350-3. Program Evaluation. P a e a a a a f e e f a ce f b ca a a T c e ce e a e e f a e a a c ec a e a f c e e a a e ba e a ce a c a a e e e e a a a e S e a a a e a a a a a e a a f a a a e c E a ace e e c e a a b f c c e a a

P AD 5361-3. Advanced Seminar in Public Policy and Management. De e a e e a e a e a e e a a e e a aa ca be f ee S e c c a e e e e ec e ab e e e a e e T c e a e e a e e e f e e a Mee C J

P AD 5370-3. Media and Public Policy. E e e c e a ac ce f e a e e c e a e U e Sa e S e be e e a e ace f e e a ce e a e e a a e e e a a c f c c a e e e f ace f e e

P AD 5380-3. Citizen Participation: Theory and Practice. Tac e e e fc e a c a a c e e e a ac ce S e ca e a e e e ca f a a a e e a c e a c a S e a e a e ca f ca e c e e ac ce f bc e e

P AD 5390-3. Rethinking Social Policy. F c e U e Sa e ca e fa e c De e e e a e e f ca e fa e c e a a be e Ne Dea a e e f a ca e fa e e e ca a ca c e c ca c e a a a e e e a e e e a e c a ef eff a a e

P AD 5410-3. Administrative Law. T c e e a e e e a a ec f c e e a a ca e e a be e e c a a a a e a e c e S e c e a a f ca e e a a e c ac a a e ce e a e ce e e c e e ca c c a ab e a e f bc e e a a a e c e a c e c c e a

P AD 5440-3. Negotiation and Conflict Resolution. F c e e c ce a e a e ae ca a a e e e c a a a e e a c c l e e e e e a e a c a affec e a a a e c e a a e e f e a a a e f ec a a e e c e

P AD 5460-3. Political Advocacy. T c e e e a e a cac a bb e f a a e e e e e a a e a f b c c e a e e be Se ca a e e a cac ce e b c ec a c a b e a bb ec e a ce e ca be e e Te e e a f c f e ca ac ca a ca a a e e f e e a a e e a e a e a ca e e l a c a e a e e a e be e a e e f e ca e a a e e e e e a ca e fe a b c e e

P AD 5502-3. Public Financial Management and Policy. T e f a ca e ce a e a f e P c ec a e a f e e ce a e e e e T c e e a e A e ca b c ec a ce e a e a e a e e a ca e be e f b e e a e e cea f e a a b e c e f e ca e e b e a e ece c c a eb a ca a a e e acc f e ce e a f eca a c a c

P AD 5540-3. Organization Development. A f e a c e a a a fac a ca e a a b a ca f be a a c e ce e e E a ace b c e a e e e a e a A bac a a e a a a e be a ec e e

P AD 5615-3. Health Policy. Hea e f e e a c e fac A e ca a T c e e a e e a e f e a c a ac e b c a f c e fe e a e e a a f c a e a ca e Me ca e a Me ca a a e e e e Tec e a e e e ac f c c a c e a fe e a a c e e effec f a a e ca e e a ca e e a e a e e a ea ca e Ae a e e a ca e e C a

P AD 5625-3. Local Government Management. Rea e e e ce e a c e f bc a a e e e ca e e e e e Pbc a a e e c ce c a a e c a b ea ca c f a a f a a a a a c e a e ce a a a e e c e e a a a e be a a e e e ec e f ca e e

P AD 5626-3. Local Government Politics and Policy. T e e ec e f c a bc c a e e a e a ca e a ce T c e f c e ca e e ca c e c a a a f a ca f ce a a e ec a a e a be e e fe a a a a e e c e f ca

P AD 5628-3. Urban Social Problems. E a e ca e e f e e ec e f c a a c C c e e a f e f bec e b a c ca a ace e a c c e ca e ce e a e e ca A e ca ce a e a e ba ca be

P AD 5650-3. Disaster and Emergency Management. Ea e ce f e a a e e f a a e e e c e a a e Fc e a e e fca e e c ce a a e a a a e e a c e a f e ca e Ea e e e f ce e e e a a a e e a a e e e c a a e e

P AD 5710-3. Public Sector Technology. I ce a c a a e a c e e ec e b c ec E a e c e f a ec c ce e a ac ce e e f e ce a e a a e a a a e l e e W W e Web

P AD 5950-3. Introduction to Homeland Defense. T c e e a e e f ea ec a e a ea efe e a US N e C a USNORTHCOM e e e e a a e face a c a e e a C e a ca a a e a f e a ec a e a efe e f e e ec e f e a a a e e a e e De a e f Defe e USNORTHCOM a e De a e f H ea Sec Ma c a be e e e c e e a a a e f e a ec a e ca a f c e a ac e c e e e e a c a a a e a c e a bae P e C a e Na a G a a USNORTHCOM a N A e ca Ae ace Defe e C a NORAD e a E e e c e a aca e c c e e a e a e a e a efe e

P AD 5951-3. Interagency Relationships in Homeland Security and Homeland Defense. A e f e e a be e e a a e a a e c e e a ec a e a efe e a f fe e a e a e a a e a e c e e e c e Pa c a e a be ace e a e e ca ab e a ca e f e a e c e e US N e C a USNORTHCOM a e face Ma c c e e e a ec c a ce a a e a b c a a e e e f e a ec a e c e e e e a a e a c e a c e e c e a a e a a e e a e a f a a e a P e P AD c e f c

P AD 6115-3. Grant Writing. De e e e e e e a e f e f e c ca f c f a b c ec a e c a a f a S e e a a f c e a a b c a a e c e a a a e a a

P AD 6600-1 to 3. Special Topics in Public Administration. C e be c e a a e f eca c e e a b c a a a C e a be a e f c e e a ce e bec a e e a e

P AD 6910-3. Field Study in Public Administration. F e a e a b a a fe a e e e e b c a a Pe C e f ec ec e a e e a e ec e

P AD 6950-3 to 6. Master's Thesis. T e a e e a a abe e f P AD f MPA e a e a c e e a e ce a a ca a e c e c a e e e e e e e a c fa e e ca a e T e e a be e a e e f ce f e e c e e b e ee e b e e e e e e MPA e e e e

P AD 9500-1 to 3. Independent Study. I e e e P bc A a Pe C e f I c

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