COLORADO MESA UNIVERSITY

Catalog

2011 - 2012

coloradomesa.edu/academics

2011-2012 Academic Calendar

Summer Semester 2011

May 16 ..... First day of classes for First (4-week) Session
May 30 ..... Memorial Day observance – NO CLASSES
June 9 ..... Final exams and last day of May session
June 13 ..... First day of classes for Second (4-week) and 7-week Sessions
July 4 ..... Independence Day Holiday – NO CLASSES
July 7 ..... Final exams and last day of June (4-week) Session
July 11 ..... First day of classes for Third (3-week) Session
July 28 ..... Final examinations for Third (3-week) and 7-week Sessions
July 28 ..... Summer Sessions end

Fall Semester 2011

August 8..... Residency petitions due to Tuition Classification Officer (Admissions Office)
August 22..... First day of classes
September 6..... Last day to add or drop a full semester class
September 6..... Fall census – date after which credit hours are counted in COF attempted hours
September 12..... Late Start session begins
September 15..... Deadline for filing Intent to Graduate Form with Registrar's Office for spring and summer graduates
October 17-18..... Fall Break – NO CLASSES
October 19..... Last day to withdraw from full semester classes with a grade of "W"
October 19..... Second module classes begins
October 31..... Priority registration for spring 2012 begins
November 23-25..... Thanksgiving Holiday – NO CLASSES
December 12-15..... Final examinations
December 15 ..... Fall semester ends

Spring Semester 2012 (including January Term)

January 3..... Residency petitions due to Tuition Classification Officer (Admissions Office)
January 3-13..... January Term
January 16..... Martin Luther King, Jr. Day – NO CLASSES
January 17..... First day of classes
February 1 ..... Last day to add or drop a full semester class
February 1 ..... Spring census – date after which credit hours are counted in COF attempted hours
February 6..... Late Start session begins
February 15 ..... Deadline for filing Intent to Graduate Form with Registrar's Office for fall graduates
March 12-16..... Spring Break – NO CLASSES
March 19..... Last day to withdraw from full semester classes with a grade of "W"
March 19..... Second module classes begin
March 26..... Priority registration for summer and fall 2012 begins
May 7-10..... Final examinations
May 10 ..... Spring semester ends
May 12 ..... Commencement

Colorado Mesa University

2011-2012 Catalog

COLORADO MESA
UNIVERSITY

1100 North Avenue, Grand Junction, Colorado 81501-3122
970.248.1020 / 800.982.6372 / coloradomesa.edu

HEOA (Higher Education Opportunity Act)
and Gainful Employment
Institution Disclosure Information

In compliance with the Higher Education Opportunity Act of 2008, information about Colorado Mesa University is available on the University's website (http://www.coloradomesa.edu/ir/HEOADisclosures.html). Information disclosed includes program information, physical plant facilities, faculty information, financial aid and textbook information, as well as student-right-to-know information.

In compliance with revisions to the Student Assistance General Provisions regulations-to improve disclosure of relevant information and to establish minimal measures for determining whether certain postsecondary educational programs lead to gainful employment in recognized occupations- information about gainful employment is also available on the University's website at http://www.coloradomesa.edu/gainfulemployment.html

Colorado Mesa University is accredited by The Higher Learning Commission and a member of the North Central Association.

General Policy Statement

Colorado Mesa University is a comprehensive coeducational institution operated under the governance of the Board of Trustees of Colorado Mesa University. The programs, policies, statements, and procedures contained in this catalog are subject to change by the University without prior notice. Colorado Mesa University reserves the right to, at any time, withdraw courses or modify the rules, calendar, curriculum, graduation procedures, and any other requirements affecting students. While the information contained in this catalog is current and correct insofar as possible at the time of printing, students are advised to check with appropriate University officials and current program sheets for up-to-date information.

This catalog is intended for the guidance of students and faculty but does not constitute a guarantee that all courses listed will actually be offered during any particular academic year. Colorado Mesa University reserves the right to withdraw or add courses prior to the beginning of any semester or summer term. In some programs, certain courses may be offered on an alternate-year basis or as determined by apparent demand. All program offerings are contingent upon adequate appropriations by the Colorado General Assembly.

Colorado Mesa University is committed to providing admission or access to, or treatment or employment in, its educational endeavors, consonant with applicable laws and without regard to race, creed, color, religion, sex, disability, age, national origin, veteran status, marital status or sexual orientation.

Inquiries may be made to the Affirmative Action Officer, Human Resources Office, Lowell Heiny Hall, Room 237.

Colorado Mesa University is a Drug-Free Workplace. All employees and students of the University agree to abide by the requirements in the Federal Drug-Free Workplace Act and the policies stated in the brochure entitled *Drug-Free Schools, Campuses and Workplaces Drug Use and Alcohol Abuse Prevention Program.* All employees and students are provided copies.

As required by the Campus Security Act, Colorado Mesa University publishes campus safety policies and statistics annually. Copies of the annual report are available at coloradomesa.edu/security/index.html.

FERPA Policy Statement

The Family Educational Rights and Privacy Act (FERPA) provides students who are enrolled in an institution of postsecondary education the right to inspect, review, and challenge their educational records. Colorado Mesa University has the responsibility of maintaining and protecting the confidentiality of students' official educational records. Colorado Mesa University also supervises the access to and/or release of educational records of its students.

FERPA covers enrolled and former students, including those who are deceased. Students who are not accepted to Colorado Mesa University, or if accepted, do not attend, have no rights under FERPA. In addition, the University will not release personally identifiable records of students to any individual, agency or organization without the prior written consent of the student, except as provided by FERPA. For further information related to FERPA, see the Registration section of this catalog.

How to Use This Catalog

This catalog is designed to assist all types of students—those considering college for the first time, those thinking of transferring from a community college or four-year institution, and those already attending Colorado Mesa University—in choosing the program of study that best fits their aspirations and goals. In this catalog you'll find admissions guidelines, financial aid information, and academic requirements so that you can make an educated decision about your future. In addition, the catalog describes aspects of student life at CMU and opportunities you'll find for personal growth outside the classroom.

If you're thinking about applying to Colorado Mesa University, follow these steps:

Step 1: See page 15 for information on admission, registration, tuition, expenses, and financial aid.

Step 2: Review the matrix beginning on page 11 to find programs of study that fall within your area of interest.

Step 3: See the Programs of Study section, beginning on page 54, for each program that interests you. For detailed degree requirements visit coloradomesa.edu/academics.

Step 4: Look up descriptions for some of the courses listed in the program. Courses are listed alphanumerically by course prefix beginning on page 105. Courses that fulfill the CMU general education degree requirements are listed on page 50.

Step 5: Finally, once you've reviewed the programs offered, see page 31 to learn about student academic support, activities and services at Colorado Mesa University.

If you're already a student at Colorado Mesa University, you can use this catalog for the following:

- Choose a major (follow Steps 1, 2, and 3 above.) Once you've declared a major contact the appropriate department to meet with your faculty advisor. If undeclared, contact the Advising and Career Center to meet with a staff advisor and discuss options.
- Keep track of your academic progress (review the requirements for your program of study.)
- Review courses, both required and elective (courses are listed alphanumerically by course prefix, beginning on page 105.)
- Review degree requirements and general education courses beginning on page 45.

UNDERGRADUATE ADMISSION INFORMATION 15

Undergraduate Admission Information

Contact: Admissions Office, Colorado Mesa University, 1100 North Avenue, Grand Junction, CO 81501-3122
Call toll free 800.982.6372 or 970.248.1875

Undergraduate Admission Procedures for Degree-Seeking Students

How to Apply
To be considered for admission, undergraduate applicants should:

1. Submit the Application for Undergraduate Admission along with a $30 non-refundable application processing fee.

Prospective students are highly encouraged to submit applications electronically via the Colorado Mesa University website at coloradomesa.edu/apply. Upon receipt of a completed admissions application and supporting documentation, applicants will be notified of their admissions status by letter.

High school students may apply as early as the completion of their junior year.

2. Submit the appropriate supporting documentation, as outlined in the table on the following page, directly to: Colorado Mesa University, Admissions Office, 1100 North Avenue, Grand Junction, CO 81501-3122. Letters of recommendation and a personal essay are optional and should be submitted to the Admissions Office.

Students who do not submit ACT or SAT test scores will be considered for admission into the two-year division of Colorado Mesa University, Western Colorado Community College. If the ACT or SAT is more than three years old, or no ACT or SAT is submitted, the student will be required to complete the ACCUPLACER assessment for math and English placement. ACCUPLACER is administered by the university's Testing Center. For questions regarding ACCUPLACER, please call the Testing Center, 970.248.1260.

Home-schooled students should provide a transcript evaluation for [illegible] available in the Admissions Office, an outline of all courses taken at the high school level. Students should submit transcripts of any courses taken at a traditional high school and may also submit a portfolio to describe high school education.

Transfer students to Colorado Mesa University should contact the Center for Transfer Services, within the Admissions Office, for help with the admissions and evaluation processes. Transfer students may be admitted into the baccalaureate degree programs if they are in good standing at another regionally accredited college or university and have a total minimum cumulative grade point average of 2.3 for 13 or more semester credits. In calculating the cumulative academic grade point average, Colorado Mesa University will compute a transfer GPA based on prior college transcripts if the student has attended more than

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Programs of Study

Acceptance of registration by Colorado Mesa University and admission to any education program at the University does not constitute a contract or warranty that the University will continue to offer the program in which a student is enrolled. The University expressly reserves the right to change, phase out or discontinue any program. The listing of courses contained in any University bulletin, catalog or schedule is by way of announcement only and shall not be regarded as an offer of contract. The University expressly reserves the right to:

1. add or delete programs and/or courses from its offerings,
2. change times or locations of courses or programs,
3. change academic calendars without notice,
4. cancel any course for insufficient registrations, or
5. revise or change rules, charges, fees, schedules, courses, requirements for degrees, and other policies or regulations affecting students, including, but not limited to, evaluation standards, whenever the same is in the best interests of the University.

NOTE: Date in parentheses following faculty member's name indicates the year of a tenure-track appointment to the Colorado Mesa University faculty or a faculty appointment to Western Colorado Community College. Only full time faculty are listed; prior temporary or part-time service is not indicated. Faculty members with a temporary appointment do not have a year listed.

Accounting

PROGRAMS OFFERED

ACADEMIC & STUDENT SERVICES, OFFICES & ACTIVITIES 31

Academic & Student Services, Offices, & Activities

Contact: Office of Academic Affairs, 970.248.1881
Office of Student Services, 970.248.1366

Admissions Office
1100 North Avenue
800.982.6372 or 970.248.1875
The Admissions Office serves as the initial point of contact for prospective students and their families. Among the staff's responsibilities are the recruitment of students and the processing of admissions applications and petitions for changes to residency classification for tuition purposes. Activities of the University's student ambassadors are also coordinated through this office.

Advising & Career Center
Lowell Heiny Hall, Room 127
970.248.1177
Advising is available from two sources: the Advising & Career Center staff and the faculty. The Advising & Career Center assists students with undeclared majors; students who have declared majors should meet regularly with a faculty advisor. In addition, the Center assists employers in implementing recruitment strategies and supports Colorado Mesa University faculty with advising and career resources.

Undeclared students are assigned to the Advising & Career Center and must meet with an advisor prior to registration. Academic advisors guide students in scheduling classes that will count towards general education requirements and in career exploration. Students who have decided on a major will be directed to the appropriate academic department. A department's administrative assistant can officially declare/change the student's major/minor, provide a program sheet, and assign the student to a faculty advisor.

Program sheets outline the requirements of the degree or certificate program being pursued. Students should work closely with their faculty advisors throughout their program. The purpose of an advisor is to assist in the process of degree completion. It is the student's responsibility to maintain his/her program sheet and to keep it up-to-date as classes are completed. Advisors are not responsible for failure to meet degree requirements.

The Advising & Career Center provides the following services, free of charge, to students and alumni*:

- Academic Advising
  - New incoming freshmen
  - Non-degree seeking students
  - Undeclared returning students
  - Students considering changing their major
- Career Counseling
- Career Assessments
- Career Fairs
- Cover Letter & Resume Development
- Employment Preparedness Workshops
- Internship Information
- Major and Minor Selection
- Mock Interviews
- MAVjobs (job database)
- Referrals for Personal Counseling

*Some restrictions may apply.

Information about career fairs is posted to the Advising & Career Center website. The Center actively invites selected companies to visit the campus to conduct on-campus recruiting.

To learn more about career opportunities and programs of study available at Colorado Mesa University, you also may want to view the Guide to Programs of Study *booklet, program sheets that detail degree requirements and provide suggested course sequencing, and the Two-Year Course Planning Calendar/Matrix.*

All are available online at ***coloradomesa.edu/academics.***

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Welcome to Colorado Mesa University

Overview of Colorado Mesa University

The founding of Grand Junction Junior College in 1925, with 39 students enrolled in seven classes, marked the beginning of post-secondary education on Colorado's Western Slope. As Mesa Junior College, the number of students grew to 270 by fall 1937; headcount increased to 1,300 by 1963. Over that period, the range of community college programs expanded, and an area vocational school was added in 1967. By 1974, the college had evolved into a baccalaureate-granting institution, leading enrollment to triple in 16 years and reach 3,891 in fall 1979. In 1988, the College was renamed Mesa State College and in 1994 the Colorado legislature authorized Mesa State College to offer selected graduate degrees in response to regional needs.

With the addition of graduate programs, Mesa State College became the only four-year institution in Colorado to offer a full-range of undergraduate programming that spans technical certificates, associate degrees (both academic and vocational), and baccalaureate degrees to master's degrees.

In 2003, Mesa State College was statutorily assigned the responsibility of meeting the educational needs for 14 Western Slope counties: Delta, Eagle, Garfield, Grand, Jackson, Mesa, Moffat, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Miguel and Summit. In 2005, Mesa State College formally created a two-year, open admission division: Western Colorado Community College.

The role and mission of the institution was reenacted in 2010 by the Colorado General Assembly (Colorado Revised Statutes 23-53-101) and amended in 2011 when Mesa State College was renamed Colorado Mesa University:

There is hereby established a university at Grand Junction, to be known as Colorado Mesa University, which shall be a general baccalaureate and graduate institution with moderately selective admission standards. Colorado Mesa University shall offer liberal arts and sciences, professional, and technical degree programs and a limited number of graduate programs. Colorado Mesa University shall also maintain a community college role and mission, including career and technical education programs. Colorado Mesa University shall receive resident credit for two-year course offerings in its commission-approved service area. Colorado Mesa University shall also serve as a regional education provider.

Institutional Vision and Values

It is the year 2020 and Colorado Mesa University has continued to mature into an institution of higher education that successfully prepares students from diverse backgrounds for lives of career and service anywhere in the world. Over the next decade, Colorado Mesa University will seek to be the first choice institution for students, faculty, and staff.

To achieve this vision Colorado Mesa University will leverage:

- An adaptable, flexible approach to learning that allows students to choose from multiple and potentially integrated pathways to achieve certification, associates, bachelors, and graduate degrees.
- A highly qualified faculty that excels in teaching and interacting with students.
- A curriculum, often bridging liberal education and professional programs, that successfully prepares students for the 21st century in the areas of personal and social responsibility, civic engagement, ethics, and intercultural/ global learning.
- Continued investment in facilities and technology that expand, expedite, and enhance learning for every student.

- Community support from businesses, industries, alumni, and residents of the region.
- A wide array of academic programs that are improved on an on-going, continuous basis for quality and relevance to Western Colorado's needs in the context of an ever-changing world.
- An administration that uses human and natural resources wisely, embraces excellence, is committed to shared governance, and is focused on the future.

Colorado Mesa University in 2020 will be respected as a learning community that embraces diversity of students, faculty, staff, ideas, and degree levels, while maintaining a quality educational environment that focuses on serving its many constituents. As it assumes an expanded leadership role, CMU will expand its public engagement of the region's stakeholders by serving as the primary intellectual and cultural center and promoting the exchange of ideas that are of regional, national, and international importance.

Colorado Mesa University values:
- high quality education in a student-centered environment;
- small class sizes and a high level of student/faculty interaction;
- a learning environment that develops and promotes the skills of inquiry, reflection, critical thinking, problem-solving, innovation, teamwork, and communication in students;
- student choice in academic programming that prepares future leaders to function as productive and responsible members of a global society;
- opportunities that engage students in applied learning;
- a faculty recognized for their professional expertise and quality of instruction;
- a staff committed to the highest quality of service to the College community;
- an attainable, accessible post-secondary experience for students in and outside of Western Colorado that emphasizes continuous improvement;
- a vibrant and varied campus setting that values diversity and diverse activities, and encourages involvement and interaction outside the classroom;
- a culture committed to integrity and academic and intellectual freedom;
- a community and region that supports the College in multiple ways;
- state-of-the-art facilities and technologies that enhance the learning environment; and
- a diversity of students, faculty, staff that promotes a balanced exchange of ideas.

Accreditation
Colorado Mesa University is accredited by The Higher Learning Commission and a member of the North Central Association: higherlearningcommission.org or 30 North LaSalle Street, Suite 2400 Chicago, IL 60602-2504; 800.621.7440; 312.263.0456.

Accreditation by this agency places credits earned at Colorado Mesa University on a par with those earned at other similarly accredited institutions throughout the United States. Various programs at Colorado Mesa University are approved by appropriate state and national agencies:

- Kinesiology: Athletic Training Education Program: Commission on Accreditation of Athletic Training Education;
- Music: National Association of Schools of Music;
- Nursing: Colorado Board of Nursing and Commission on Collegiate Nursing Education (baccalaureate). Colorado Mesa University is also approved by the Colorado State Board of Nursing to prepare nurses for licensure application.
- Paramedic: Commission on Accreditation of Allied Education Programs;
- Radiologic Technology: Joint Review Committee on Education in Radiologic Technology;
- Teacher Education: National Council for Accreditation of Teacher Education. Colorado Mesa University is also approved by the Colorado Department of Higher Education and the Colorado Department of Education to prepare teachers for licensure application.

The University is designated as Balanced arts and sciences/professions, some graduate coexistence as part of the Carnegie classification of higher education institutions.

Montrose Campus
Located at the Buell Higher Education Campus in Montrose, the campus offers students the opportunity to complete an associate degree, or work toward their baccalaureate degree by completing the general education component. A limited selection of upper-division coursework is offered via distance technology. The Montrose Campus offers coursework primarily in the afternoons and evenings to meet the needs of both traditional and working students. In addition to the classrooms and office, the campus houses two computer labs and a telecommunications classroom.

The campus office is open from 8 a.m. to 5 p.m., Monday through Friday; phone 970.249.7009. All student services are available at the office (admission, assessment, financial, and business). Academic advising services are available by appointment.

Tilman M. Bishop Campus
The Tilman M. Bishop Campus of Colorado Mesa University is the result of a partnership of the University, Mesa County Valley School District 51, and area businesses. The applied technology programs at the Bishop Campus serve the technical education needs of both university and area high school students, primarily those in District 51.

Students at the Bishop Campus—the main site of Western Colorado Community College, Colorado Mesa University's two-year division—can earn two-year associate degrees or technical certificates. High school students earn elective credits and, in many of the programs, university credits. Among the services available at the Bishop campus are college admission, class scheduling, academic and interest assessments, resume preparation, job interviewing skills, and placement in internships and jobs. For more information call 970.255.2600 or toll free, 888.455.2617.

Diversity Statement
Colorado Mesa University extends its services to anyone regardless of age, race, color, national origin, religion, sex, disability, veteran status, or sexual orientation.

Following is the statement of philosophy on diversity which has been adopted by the faculty at Colorado Mesa University:

"Colorado Mesa University is a community of scholars in the liberal arts tradition. As faculty we believe that all people, regardless of age, race, color, national origin, religion, sex, disability, veteran status, or sexual orientation, have something worthwhile to contribute and that these contributions benefit us all. Therefore, we intend that within our academic community all cultural differences will be treated with equal respect and tolerance. We desire that our students have the opportunity to appreciate the diversity of our modern world, and we encourage them to partake of the resources available within our community. As faculty we pledge ourselves to provide as many divergent cultural experiences for our students as the resources of the college and the needs of our disciplines allow."

"To further tolerance and appreciation of our society's diversity, Colorado Mesa University requires that all graduates fulfill General Education requirements. In doing so we honor the validity of a liberal education. We hope that the experience will help our students understand how to appreciate the true diversity of the world. Because diversity promotes multiple opinions, techniques, viewpoints and approaches, it is not the individual courses within the General Education program which we believe will further the above-stated goals, but the whole experience of the program itself."

Student Bill of Rights

The Colorado General Assembly implemented the Student Bill of Rights to assure that students enrolled in public institutions of higher education have the following rights:

1. A quality general education experience that develops competencies in reading, writing, mathematics, technology and critical thinking through an integrated arts and science experience;
2. Students should be able to complete their associate of arts and associate of science degree programs in no more than sixty credit hours or their baccalaureate programs in no more than one hundred twenty credit hours unless there are additional degree requirements recognized by the commission;
3. A student can sign a two-year or four-year graduation agreement that formalizes a plan for the student to obtain a degree in two or four years, unless there are additional degree requirements recognized by the commission;
4. Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;
5. Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education;
6. Students, upon successful completion of core general education courses, should have those courses satisfy the core course requirements of all Colorado public institutions of higher education;
7. Students have a right to know if courses from one or more public higher education institutions satisfy the students' graduation requirements;
8. 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.

Degrees and Programs of Study

Colorado Mesa University offers programs leading to awards in four levels - technical certificates, associate degrees, baccalaureate degrees, and at the graduate level, the master's degree. The matrix at the end of this section provides an overview of the offerings at each level.

General requirements for each degree and certificate program are listed in the graduation requirements sections of this catalog and in program sheets on coloradomesa.edu/academics. While these general requirements are as correct and current as possible at the time of publication, some changes may occur as programs are updated. Students seeking a specific degree or certificate must obtain a program sheet from the appropriate academic department detailing specific and current requirements for the award being sought and are responsible for meeting them.

Master's degrees offered by Colorado Mesa University are:

- Master of Arts (M.A.) in Education
- Master of Business Administration (M.B.A.)

Baccalaureate degrees offered are:

- Bachelor of Arts (B.A.)
- Bachelor of Applied Science (B.A.S.)
- Bachelor of Business Administration (B.B.A.)
- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Science (B.S.) and
- Bachelor of Science in Nursing (B.S.N.).

These are programs of study that generally consist of 120 or more credit hours and provide extensive preparation in a specific major. Concentrations are available within many of the baccalaureate degrees.

Engineering: Through a partnership with the University of Colorado at Boulder, students can complete a Bachelor of Science in Mechanical Engineering from the University of Colorado at Boulder on the Colorado Mesa University campus.

Pre-Health Science Preparation: Admission to the study of dentistry, medicine, optometry, physical therapy, and veterinary medicine usually requires the completion of a baccalaureate degree, often in biological sciences. Students planning to enter one of these health fields should declare a major in one of the sciences after consultation with a faculty advisor.

Associate degrees are awarded in two broad areas:

- Associate of Arts or Associate of Science (A.A., A.S.) degrees are available in a number of emphases at Colorado Mesa University. Students enrolling in these degrees may be preparing for immediate employment upon graduation or they may expect the two-year degree to be the first phase toward a baccalaureate degree. All A.A. and A.S. degrees include the statewide common core of general education curriculum and, when completed successfully, meet the lower-division general education requirements of most baccalaureate degree programs.

Students planning careers in forestry, medical technology, or pharmacy are encouraged to complete either an Associate of Arts or Associate of Science program in one of the science emphasis areas at Colorado Mesa University, followed by two additional years of study at another institution for the baccalaureate degree.

- Associate of Applied Science (A.A.S.) degrees are offered in a variety of technical and vocational programs. A.A.S. programs average two years in length.

Technical certificates are normally chosen by students whose immediate plans are a career in a technical area. While the length may vary, these programs are usually about one-year long and are designed to train for specific skills required for employment.

Non-credit continuing education courses toward personal, civic, vocational, and professional self-improvement are offered through the University's Community Education Center.

PROGRAMS OF STUDY		LEVEL OF AWARD				
		Technical Certificate	Associate	Baccalaureate	Graduate	Minor
Accounting	Public Accounting			B.S.		M
Administrative Office Technology		T.C.	A.A.S.			
Archaeology						M
Art	Concentrations: Art History; Studio Art			B.F.A.		M
	K-12 Education Licensure (see Teacher Education below)			B.F.A.		
Athletic Training				B.S.		
Aviation Technology *pending final approval*	Emphases: Fixed Wing, Helicopter	T.C.				
Biological Sciences	Biology			B.S.		M
	Secondary Education Licensure (see Teacher Education below)			B.S.		
Business Administration	Concentrations: Business Economics; Energy Management/Landman; Entrepreneurship; Finance; Hospitality Management; Human Resource Management; Information Systems; Insurance; Management; Managerial Informatics; Marketing			B.B.A.	See Business Admin	M
Business Administration				B.A.S.	M.B.A.	
Classical Studies						M
Computer Information Systems				B.S., B.A.S.		M
Computer Science				B.S.		M
Construction Management				B.S.		
Construction Technology	Emphases: Craft; Supervision	T.C.	A.A.S.			
Criminal Justice	Concentrations: Criminal Justice, Law Enforcement		A.A.S.	B.A.		M
Culinary Arts		T.C.	A.A.S.			
Dance						M
Decision Support Systems		T.C.				
Early Childhood Education	Emphases: Director; Teacher	T.C.				
Economics				See Business Admin		M
Education (see also Teacher Education on page 12)	Cognates: Educational Leadership; English for Speakers of Other Languages				M.A.	
Electric Lineworker		T.C.				
Emergency Medical Technician	Emphases: Basic; Paramedic	T.C.	A.A.S.			
Energy Management/ Landman		T.C.		See Business Admin		
Engineering	Mechanical Engineering delivered in partnership with the University of Colorado at Boulder; degree awarded by University of Colorado at Boulder (also see Mechanical Engineering Technology below)					
English	Concentrations: Literature; Writing			B.A.		M
	Secondary Education Licensure (see Teacher Education below)			B.A.		

PROGRAMS OF STUDY		LEVEL OF AWARD				
		Technical Certificate	Associate	Baccalaureate	Graduate	Minor
Entrepreneurship		T.C.		See Business Admin		M
Environmental Science and Technology				B.S.		M
Exercise Science				B.S.		
Forensics						M
Finance				See Business Admin		
Geographic Information Science & Technology		T.C.				M
Graphic Design	Concentrations: Animation; Print			B.F.A.		M
History	History			B.A.		M
	Secondary Education Licensure (see Teacher Education below)			B.A.		
Hospitality Management			A.A.S.	B.A.S., B.B.A. - see Business Admin		
International Studies						M
Insurance		T.C.		See Business Admin		
Kinesiology	Concentrations: Adapted Physical Education; Health and Fitness Promotion			B.A.		
	K-12 Education Licensure (see Teacher Education below)			B.A.		
Liberal Arts	Emphases: Administrative Office Technology; Business Administration; Business Computer Information Systems; Early Childhood Education; Humanities; Social Science		A.A.			
Liberal Arts	Emphases: Biology; Computer Science; Geology; Mathematics; Physics		A.S.			
Liberal Arts	Non-Education			B.A.		
	Elementary Education Licensure: English; Mathematics; Social Science (see Teacher Education below)			B.A.		
Managerial Informatics				See Business Admin		M
Manufacturing Supervision		T.C.				
Manufacturing Technology	Emphases: Computer-aided Design Technology; Machining Technology; Welding Technology	T.C.	A.A.S.			
Mass Communication	Media Strategies and Applications			B.A.		M
Mathematics	Concentrations: Mathematics; Statistics			B.S.		M
	Secondary Education Licensure (see Teacher Education below)			B.S.		
Mechanical Engineering Technology			A.A.S.	B.S.		
Medical Office Assistant *pending final approval*		T.C.				

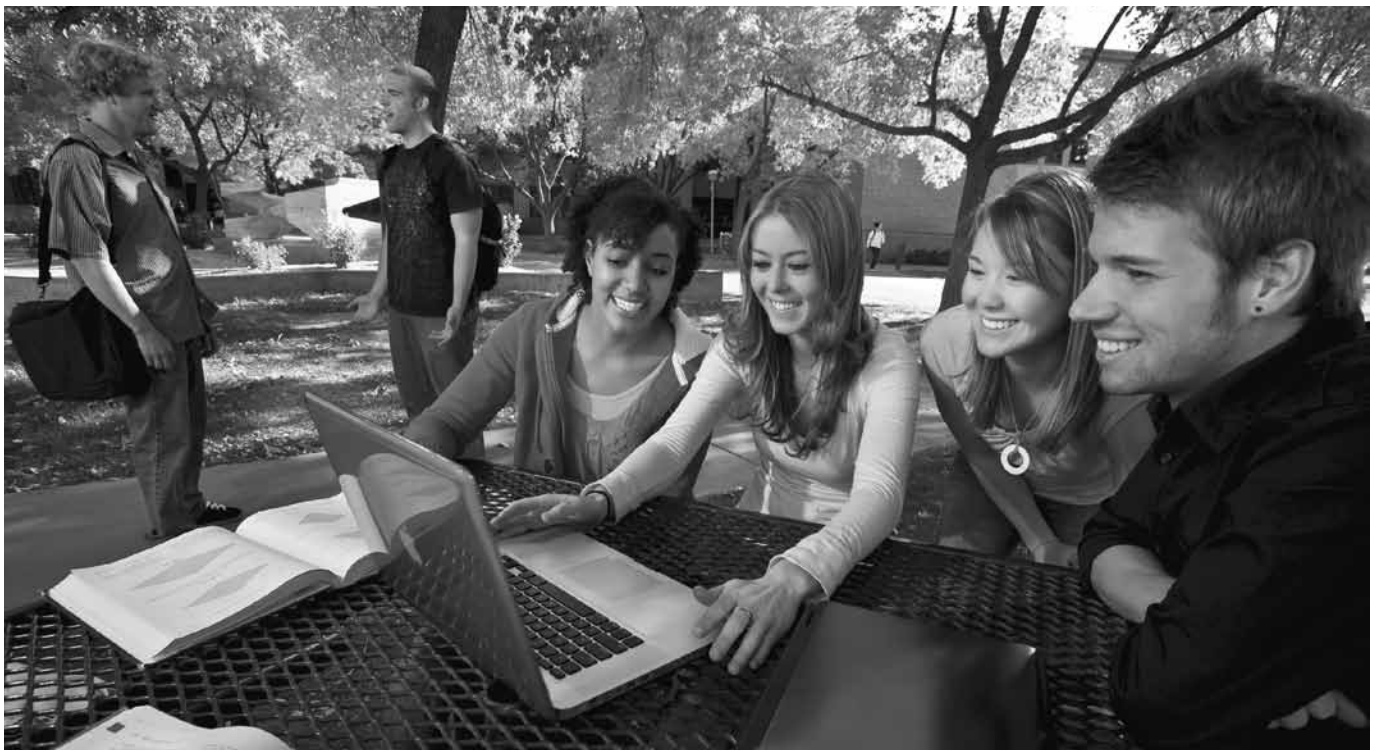
PROGRAMS OF STUDY		LEVEL OF AWARD				
		Technical Certificate	Associate	Baccalaureate	Graduate	Minor
Music	Concentrations: Elective Studies in Business, Liberal Arts; Performance			B.A.		M
	K-12 Education Licensure (see Teacher Education below)			B.A.		
Nurse Aide		T.C.				
Nursing		P.N.	A.A.S./RN	B.S.N.		
Peace Officer Standards & Training (P.O.S.T.)		T.C.				
Personal Training						M
Philosophy						M
Physical Sciences	Concentrations: Chemistry; Environmental Geology; Geology; Physics			B.S.		M
	Secondary Education Licensure - Geology (see Teacher Education below)			B.S.		
Political Science				B.A.		M
Process Systems Technology			A.A.S.			
Psychology	Concentrations: Counseling Psychology; Psychology			B.A.		M
Public Administration/ Public Safety				B.A.S.		
Public Safety Diving		T.C.				
Radiologic Technology			A.A.S.	B.A.S.		
Real Estate Broker		T.C.				
Sociology	Concentrations: Human Services; Sociology			B.A.		M
Spanish	Concentrations: Applied Professional Spanish; Literature & Language			B.A.		M
	Secondary Education Licensure (see Teacher Education below)			B.A.		
Speech						M
Sport Management			A.S.	B.S.		M
Supervision		T.C.				
Sustainability Practices		T.C.				
Teacher Education: Students must complete degree requirements in one of the following programs of study in addition to required coursework through the Center for Teacher Education for initial licensure: Elementary Education: Liberal Arts (B.A.) Concentrations: English, Mathematics, Social Science						
Secondary Education: Biology (B.S.); English (B.A.); History (B.A.); Mathematics (B.S.); Physical Sciences - Geology (B.S.); Spanish (B.A.)						
K-12 Education: Art (B.F.A.); Kinesiology (B.A.); Music (B.A.)						
Post-Baccalaureate Licensure: Elementary; Secondary: Requires education coursework in addition to leveling courses						
Technology Integration	Network Technician; Network/ Telecommunication Technician; Telecommunication VoIP Technician	T.C.	A.A.S..			

PROGRAMS OF STUDY		LEVEL OF AWARD				
		Technical Certificate	Associate	Baccalaureate	Graduate	Minor
Theatre	Concentrations: Acting/Directing; Dance; Design/Technical; Music Theatre			B.A.		M
Transportation Services	Emphases: Automotive Technology; Diesel Technology	T.C.	A.A.S.			
Travel and Tourism						M
Visual Communications	Animation Technology	T.C.	A.A.S.			
Water Quality Management			A.A.S.			
Watershed Science						M

Learn more about programs of study available at Colorado Mesa University at ***coloradomesa.edu/academics.***

Undergraduate Admission Information

Contact: Admissions Office, Colorado Mesa University, 1100 North Avenue, Grand Junction, CO 81501-3122
Call toll free 800.982.6372 or 970.248.1875



Undergraduate Admission Procedures for Degree-Seeking Students

How to Apply
To be considered for admission, undergraduate applicants should:

1. Submit the Application for Undergraduate Admission along with a $30 non-refundable application processing fee.

Prospective students are highly encouraged to submit applications electronically via the Colorado Mesa University website at coloradomesa.edu/apply. Upon receipt of a completed admissions application and supporting documentation, applicants will be notified of their admissions status by letter.

High school students may apply as early as the completion of their junior year.

2. Submit the appropriate supporting documentation, as outlined in the table on the following page, directly to: Colorado Mesa University, Admissions Office, 1100 North Avenue, Grand Junction CO 81501-3122. Letters of recommendation and a personal essay are optional and should be submitted to the Admissions Office.

Students who do not submit ACT or SAT test scores will be considered for admission into the two-year division of Colorado Mesa University, Western Colorado Community College. If the ACT or SAT is more than three years old, or no ACT or SAT is submitted, the student will be required to complete the ACCUPLACER assessment for math and English placement. ACCUPLACER is administered by the university's Testing Center. For questions regarding ACCUPLACER, please call the Testing Center, 970.248.1260.

Home-schooled students should provide a transcript evaluation form (available in the Admissions Office) or an outline of all courses taken at the high school level. Students should submit transcripts of any courses taken at a traditional high school and may also submit a portfolio to describe their high school education.

Transfer students to Colorado Mesa University should contact the Center for Transfer Services, within the Admissions Office, for help with the admissions and evaluation processes. Transfer students may be admitted into most baccalaureate degree programs if they are in good standing at another regionally accredited college or university and have a total minimum cumulative grade point average (GPA) of 2.3 for 13 or more semester credit hours. In calculating the cumulative admission grade point average, Colorado Mesa University will compute a transfer GPA based on prior college transcript(s). If the student has attended more than

Admission of First-time Freshmen and Transfer Students to Colorado Mesa University

	STUDENT CATEGORY								
	First-time Freshman		Transfer Students						
			12 or Fewer Credit Hours			13-29 Credit Hours		30+ Credit Hours	
STUDENT DEGREE INTENT	Official High School Transcripts, including GED [1]	Standardized Test Scores (ACT or SAT)	High School Transcripts	Official College Transcripts [7]	Standardized Test Scores (ACT or SAT)	High School Transcripts	Official College Transcripts [7]	Official College Transcripts [7]	Transfer GPA
Four-Year Degree-Seeking	Required; sent directly to university by high school counselor. High School grads >= Spring 2008 must meet HEAR requirements	Required; sent directly to university by testing organization [6]	Required; sent directly to university by high school counselor. High School grads >= Spring 2008 must meet HEAR requirements	Required; sent directly to university from previously attended institution(s)	Required; sent directly to university by testing organization [6]	Required; sent directly to university by high school counselor. High School grads >= Spring 2008 must meet HEAR requirements	Required; sent directly to university from previously attended institution(s)	Required; sent directly to university from previously attended institution(s)	2.30
Two-Year Degree-Seeking (AA, AS)	Required; sent directly to university by high school counselor	Recommended; sent directly to university by testing organization [3]	Required; sent directly to university by high school counselor	Required; sent directly to university from previously attended institution(s)	Recommended; sent directly to university by testing organization [3]	Not required	Required; sent directly to university from previously attended institution(s)	Required; sent directly to university from previously attended institution(s)	2.00 [4]
Two-Year Degree-Seeking (AAS)	Required; sent directly to university by high school counselor	Recommended; sent directly to university by testing organization [3]	Required; sent directly to university by high school counselor	Required; sent directly to university from previously attended institution(s)	Recommended; sent directly to university by testing organization [3]	Not required	Required; sent directly to university from previously attended institution(s)	Required; sent directly to university from previously attended institution(s)	No minimum
Certificate-Seeking	Required; sent directly to university by high school counselor	Not required	Required; sent directly to university by high school counselor	Required; sent directly to university from previously attended institution(s)	Not required	Not required	Required; sent directly to university from previously attended institution(s)	Required; sent directly to university from previously attended institution(s)	No minimum
Non-Degree-Seeking	None [2]	Not required [5]	None [2]	Not required	Not required	Not required	Not required	Not required	No minimum

[1] Preliminary transcript will be accepted until final transcript is submitted; also applies to home-schooled students.

[2] Must become degree-seeking by no later than completion of 30 credit hours and complete high school diploma or GED.

[3] May be required for admission to selected programs; will be required for placement in general education courses.

[4] Students who left their previous institution(s) and were not in good academic standing must earn a minimum 2.00 GPA during their first semester.

[5] Placement tests or prerequisites may be required.

[6] 85 or higher index is required.

[7] Include transcripts of college courses completed while still in high school.

Note: In addition to requirements shown above, some academic programs have additional admission requirements. Admission to Colorado Mesa University does not guarantee admission to those programs.

one prior institution, the GPA of each is combined for a total cumulative admission GPA.

Transfer students who are on probation or suspension from another college or university, or have a cumulative grade point average of less than 2.3, will not be admitted into a baccalaureate degree program but may enroll in Western Colorado Community College. Transfer students who are on probation or suspension from another college may be placed on probation at Colorado Mesa University.

An evaluation of transfer courses is made once the student's application file is complete. Credit evaluations are completed in the Registrar's Office, with the assistance of academic department heads.

Returning students (any student who has previously attended Colorado Mesa University and has been out for at least two semesters; summer and January terms excluded) must submit an online application at coloradomesa.edu/apply or a paper application obtained from the Registrar's Office. If the student has attended another institution since last attending Colorado Mesa University, official transcripts of all work must be sent directly to Colorado Mesa University, Registrar's Office, from each institution attended. See "Catalog Under Which a Student Graduates" section to determine the catalog to be followed for graduation.

Students wishing to return after being on suspension must complete the Returning Student Application to be considered for re-admission. See the Academic Suspension section.

Admission Decisions

Students who are academically prepared may be admitted to either the university's four-year or two-year divisions, according to the student's degree intent. Admission to the university's four-year division, however, does not guarantee acceptance of a student into a specific course or academic program (i.e., admission to the university does not imply entry into any program which has selective admission standards). Some students may be required to enroll in special courses for correction of academic or other deficiencies before further consideration is given.

Applicants applying for enrollment in Western Colorado Community College, Colorado Mesa University's two-year division, are automatically admitted through the community college's open admission policy. Students may later request transfer into a baccalaureate degree program after successfully completing a minimum of 30 college level semester credit hours and a cumulative grade point average of 2.3 or better or after earning an associate degree. Students with less than 30 college-level credit hours may also be subject to the Colorado Higher Education Admission Requirements (HEAR). See page 18 for more details regarding HEAR requirements.

Any transfer student admitted to Colorado Mesa University on a probationary status must earn a minimum 2.00 GPA the first semester or be placed on academic suspension and will not be eligible to return to Colorado Mesa University as stated under the academic suspension guidelines.

Admission to Specific Undergraduate Programs

Some baccalaureate, associate, and certificate programs may have specific entrance requirements in addition to general university admittance. Admission to Colorado Mesa University does not guarantee admission into an academic or technical program. More information is available in this catalog in the Programs of Study section. Prospective students should check with the department head of the specific academic program for special requirements.

Admission to CMU/University of Colorado at Boulder Mechanical Engineering Partnership Program

Students who are applying to the CMU/CU-Boulder Mechanical Engineering Partnership Program are required to:

- Rank in the top 10% or GPA 3.7; and
- SAT Critical Reading 590 or ACT English 26; and
- SAT Math 670 or ACT MATH 30

They must also maintain a 2.0 for any college courses taken in high school.

Students who plan to transfer into the partnership program must complete a required sequence of courses with a minimum 2.9 GPA (see Mechanical Engineering in the programs of study section of this catalog). These criteria may be revised. Students should contact the Department of Physical and Environmental Sciences and visit coloradomesa.edu/engineering for more details.

Acceptance of Credits from Other Institutions

It is the policy of Colorado Mesa University to accept academic credits from:

1. All public colleges and universities in the state of Colorado, provided they are currently regionally accredited. This applies regardless of the institution's accreditation status at the time the credit was earned.
2. Private and out-of-state colleges and universities, provided the institution is currently regionally accredited and was accredited or was a candidate for accreditation at the time the credit was earned.
3. Regionally accredited two-year community or junior colleges.
4. Regionally accredited institutions that award "S" or "P" grades, if the granting institution states that such grade is equal to a grade of "C" or better.

   Regional accrediting bodies are:

   - Middle States Association of Colleges and Schools
   - New England Association of Schools and Colleges
   - Northwestern Association of Schools and Colleges
   - North Central Association of Schools and Colleges
   - Southern Association of Schools and Colleges
   - Western Association of Schools and Colleges

Only courses with a grade of "C" or better are eligible to be applied toward a degree or certificate.

Colorado Mesa University reserves the right to evaluate, on a course-by-course basis, any credits earned 15 years or more prior to enrollment. Initially, only courses used to fulfill general education requirements will be accepted in transfer. Other courses will be transferred upon acceptance by the department head within the major. Additional transfer polices are available at coloradomesa.edu/registrar/transfer.html.

Advanced Placement and International Baccalaureate Credits
Advanced Placement (AP) or International Baccalaureate (IB) transfer credit may be obtained by students who have successfully completed AP or IB courses and tests while in high school. Information about specific AP and IB courses and credits can be found at coloradomesa.edu/registrar/transfer.html

Additional information about AP and IB is available in the General Academic Policy section of this catalog under Non-Traditional Credit. To receive credit, an official copy of the AP or IB transcripts must be sent directly from the testing agency to the CMU Registrar's Office.

International Students

To be considered for admission, students who are not U.S. citizens or resident aliens must complete and submit the following to the Colorado Mesa University Admissions Office, 1100 North Avenue, Grand Junction CO 81501-3122 prior to May 1 for fall semester and by September 1 prior to spring semester:

1. International Student Application form with $30 non-refundable application fee;
2. Copy of ACT or SAT scores and proof of English proficiency;
3. Official secondary school transcript (transcripts not issued in English must be accompanied by exact English translations);
4. Transcripts from all other colleges or universities attended (see Transfer Students section);
5. Affidavit of financial support and an official bank statement showing proof of funds;
6. Evidence of medical insurance (students who do not have proof of medical insurance will be required to purchase Colorado Mesa University student health and accident insurance);
7. For registration purposes, all international students are required to comply with the Colorado law on measles, mumps and rubella. A Colorado Mesa University official form must be completed and returned to the Admissions Office.

Prospective international students who are seeking admission to Colorado Mesa University and whose primary language is not English must provide documented evidence of ability to read, write, speak, and understand the English language. This requirement may be fulfilled in one of the following ways:

1. Submission of scores of Test of English as a Foreign Language (TOEFL) with a minimum average of 70 (internet based) or 525 (paper based) or 190 (computer based).
2. Submission of scores of International English Language Testing System (IELTS) with a minimum of Band 6.
3. Submission of results of Michigan Test of English Language with a minimum score of 80.
4. An international student who has been enrolled as a full-time student at another college or university in the United States may request consideration of fulfillment of this requirement on an individual basis.
5. Other evidence will be considered on an individual basis.

Before admission is granted, an international student must provide proof of financial ability to meet cost of tuition, fees, books, living accommodations, health insurance and incidental expenses for at least one full year.

Costs, additional information, and forms may be obtained from coloradomesa.edu/international.

International transfer students must provide the appropriate transcript of courses (or grade reports, exam results, degree awards, depending on the standard of the particular country) before transfer credit can be determined. Original documents must be presented. Documents that cannot be replaced will be returned to the student once evaluation is complete. Documents in English are preferred but those in other languages will be accepted when accompanied by an official, verified translation. In most cases, course descriptions or syllabi are required to determine content of individual courses.

Undergraduate Admission Procedures for Non-Degree Seeking Students

Students who do not wish to pursue a degree or certificate at Colorado Mesa University may apply as non-degree seeking rather than being formally admitted to the university. This includes those students who wish to enroll in Colorado Mesa University courses while away from their "home" institution, such as during summer and January terms. Policies and guidelines include:

1. Applicants must complete the Colorado Mesa University Application for Undergraduate Admission, checking the non-degree seeking student box, and submit it along with a non-refundable $30.00 application fee.
2. Students who do not wish to pursue a degree or certificate are not required to submit high school or college transcripts or test scores.
3. Non-degree seeking students are not eligible for financial aid or scholarships and will not be assigned an advisor.
4. Non-degree seeking students must consistently earn a minimum semester grade point average of 2.00 while enrolled at Colorado Mesa University.
5. Non-degree seeking students who earn 30 semester hours at Colorado Mesa University must apply for admission to Colorado Mesa University as a degree seeking student in order to continue taking classes at Colorado Mesa University.

6. Degree seeking students will have priority over non-degree seeking students regarding registration.
7. Non-degree seeking students are advised that courses taken during non-degree seeking status are counted against the state's current allowance of 145 semester credit hours through the College Opportunity Fund (COF).

Non-degree seeking students have not been formally admitted to Colorado Mesa University and are not guaranteed admission should they later make formal application as degree seeking.

Once non-degree seeking students apply formally for degree seeking status at Colorado Mesa University, the admission policies in effect at the time of formal application will be used to determine admissibility into the university and general and/or specific academic programs. This includes satisfying all requirements for admission as summarized in the admissions table found earlier in this section.

Immunization Policy for Measles, Mumps, and Rubella

Colorado State Immunization Law states that effective July 1, 1992, all college students born since January 1, 1957 must have two (2) measles, two (2) mumps, and two (2) rubella doses. If the student received a second measles dose prior to July 1, 1992, the second mumps and rubella are not required.

Written evidence of titers (blood tests) showing immunity to measles, mumps, and rubella is acceptable. If the student completes an exemption form and an outbreak occurs, the student will be subject to exclusion from school.

Selective Service

Any male student born on or after January 1, 1960 wishing to attend classes at Colorado Mesa University must attest to his registration or exemption from registration with the Selective Service. This testimony must be done prior to initial registration.

Veterans

Programs offered by Colorado Mesa University, with certain exceptions, are approved by the Community College and Occupational Education System for the education and training of those veterans and dependents of veterans eligible under applicable public laws. If benefit assistance is desired, a veteran or dependent planning a course of training in a special program not described in the university catalog or identified as approved for veteran's benefits should check with the VA certifying official before enrolling in such a program.

Veterans and dependents who plan to apply for VA benefits while attending Colorado Mesa University should contact the Registrar's Office as soon as the decision to enroll is made. Application for benefit assistance must be made at least twelve weeks prior to initial registration if the certification process is to be processed by the VA before the first day of class. Without this advance application, the student must make other financial arrangements and be prepared to finance tuition and fees, books, supplies, and living expenses until VA funds are received. Twelve weeks is the minimal processing time required for the Veterans Administration to establish an applicant's file. Further information may be obtained from the VA certifying official in the Registrar's Office.

Credit may be granted for experience and training gained during active duty in the armed forces. Students must submit appropriate discharge papers, transcripts, and certificates of completion to the Registrar's Office. All credit granted will be lower division credit.

Concurrently Enrolled High School Students

Current enrolled high school students may register for college-level classes through four distinct programs as provided through the Concurrent Enrollment Act (CE). Through Western Colorado Community College's Early Scholars Program, high school students may access college-level courses not replicated in the high school curriculum through enrollment on a Colorado Mesa University campus. College-level courses are also taught at participating high schools by qualified and approved high school instructors through Western Colorado Community College's High School Scholars Program. Students may also enroll through Colorado's ASCENT program if they have completed all high school graduation requirements, will have earned at least 12.0 college credit hours prior to high school completion, and agree to the special enrollment terms of the ASCENT Program. And students enrolled in Western Colorado Community College's Career and Technical Education (CTE) high school program can earn college credits through the Technical Scholars program.

To participate in the Concurrent Enrollment Program, students must be currently enrolled in high school (public, private, or home-schooled) and meet all the following in order to be considered (Technical Scholars Program participants are exempt from the requirements below, but must meet other course competency requirements to earn college credit):

1. Minimum 3.0 cumulative GPA;
2. ACT Reading score of 17 or higher;
3. ACT English score of 18 or higher; or SAT verbal score of 470 or higher; and
4. ACT Math score of 19 or higher; or SAT math score of 470 or higher;
5. Approval of high school official.

Note: Students must take the ACCUPLACER assessment if the above tests have not been taken. ACCUPLACER may be scheduled by contacting the Prometric Testing Center at 970.248.1260 at a cost of $17 per section. ACCUPLACER may also be taken through other college testing centers and scores provided to Western Colorado Community College.

In most cases the school district will pay the tuition of the student to concurrently attend Colorado Mesa University or Western Colorado Community College (summer session excluded). Students (or parents or legal

guardians if student is a minor) are always responsible for payment of any and all fees, books, and supplies, as well as payment of tuition not covered by the school district. Students must give notice to the high school 60 days before the beginning of the semester they wish to enroll and have all information submitted to the Western Colorado Community College Admission Office.

Application Process
Early Scholars/High School Scholars Programs. All students wishing to enroll in the Early Scholars or High School Scholars programs must be enrolled in high school (or, if home-schooled, be at the junior or senior level). Qualified students must complete and submit the following: Western Colorado Community College application, Concurrent Enrollment Registration Form, current high school transcript, and appropriate test score reports. During the application process, high school seniors have the option of requesting admission to Western Colorado Community College or Colorado Mesa University as a first-time freshman upon high school graduation; no additional application is necessary. All Early Scholars or High School Scholars Program students must submit a Concurrent Enrollment Registration form each semester. This form requires completion by the student, lists the desired courses to be taken, and requires the high school official's approval. Early Scholars students (taking classes on one of Colorado Mesa University's campuses) must also submit proof of two (2) measles, mumps, & rubella vaccinations.

Technical Scholars Program
Students may earn college credits through the Technical Scholars Program while enrolled in the CTE high school program at Western Colorado Community College. Students will register for the college credit during the start of the second semester and must meet over 80% of course competencies to qualify for college credit. Students are advised to meet with their WCCC instructors to determine their eligibility.

ASCENT Program
The ASCENT (Accelerating Students through Concurrent Enrollment) Program permits eligible students to participate in a "5th year" of high school while enrolled concurrently at Colorado Mesa University or Western Colorado Community College. To be eligible for the ASCENT program students, must fulfill all local school district graduation requirements, have completed at least 12 credits of postsecondary course work at the end of four years, and require no remediation. The school district will pay the tuition (up to the maximum provided by the Department of Education) for qualified ASCENT students; however, students are responsible for fees, books, supplies, as well as any tuition not covered by the school district. Students must indicate their initial interest through their high school counselor by mid-September. Qualified students must complete and submit the following by January 15th to apply for the ASCENT program: Western Colorado Community College application, ASCENT Registration Form, current high school transcript, and appropriate test score reports.

Obligations for Concurrently Enrolled Students
1. Upon course registration, students (or parents/legal guardians if student is a minor) incur a financial obligation to CMU.
2. Students participating in this program must apply for the College Opportunity Fund (COF) stipend. A student not registered for COF is responsible for payment of the COF stipend in addition to any additional outstanding tuition/fee charges.
3. Because Early Scholars/High School Scholars enroll in college-level course(s), participating students must meet the same course requirements as other college and university students.
4. Most courses taken satisfy university graduation requirements. Note that Activities (KINA), remedial basic skills, and advanced placement courses are not eligible under the Early Scholars/High School Scholars program.
5. Grades earned in the Concurrent Enrollment program are part of the student's permanent CMU record and will appear on his/her college transcript; this may affect future university admission and/or scholarship potential.
6. Course credits will transfer only if a student earns a C or better in the course.
7. Students who earn a grade of D or F in any CMU or WCCC course while enrolled in the Concurrent Enrollment program will be financially responsible for repayment of all tuition paid for the course to their school district (if applicable). Further, students earning a grade of D or F while enrolled in the Concurrent Enrollment program will be prohibited from enrolling in any additional courses until they successfully pass the failed course(s) and meet their financial obligations for tuition repayment.
8. If students withdraw from a course after the add/drop date, they will receive a grade of W or F on their CMU transcript and will be responsible for all tuition and fees paid. See official university academic calendar for specific dates.
9. Students participating in this program are not eligible for the following: university activities or sports, and/or federal- or state-funded financial aid, including institutional scholarships funded with general fund dollars.
10. Registration in the Early Scholars/ High School Scholars/Technical Scholars programs does not admit the student into a degree program.
11. Student should check with their local school district regarding specific eligibility and financial obligations.

Colorado Mesa University does not guarantee that the approved classes will be available upon registration. Before registering for a specific course, students must fulfill the prerequisites listed in the Colorado Mesa University catalog. For more information related to the Concurrent Enrollment programs visit coloradomesa.edu/wccc/concurrent.html.

Colorado Public Higher Education Admission Requirements (HEAR)

The admissions policy of the Colorado Department of Higher Education (CDHE) requires the completion of a precollegiate curriculum for admission to a four-year Colorado public college or university for students graduating from high school beginning 2008.

Transfer applicants with fewer than 30 college-level semester credit hours and students transferring within the same institution must also demonstrate academic preparation comparable to HEAR if they graduated from high school in 2008 or later. Such preparation can be demonstrated by completing the pre-collegiate curriculum in high school and/or by successfully completing (with a grade of C- or higher) a college-level course in each core area (English, mathematics, natural sciences, foreign language and social sciences) where the high school unit requirements have not been fulfilled.

For students who graduated in 2010, or later, high school course or unit requirements include:

- Four years of English
- Four years of mathematics (algebra I or higher)
- Three years of social studies (including one year of U.S. or world history)
- Three years of natural science (two of which are lab-based)
- Two years of academic elective.
- One year of foreign language

Additional details are available from the CDHE website at: highered.colorado.gov/academics/admissions/.

Colorado Mesa University Baccalaureate Admission Requirements

First-year students who are admitted to Colorado Mesa University's four-year division must meet a minimum index score of 85. Student with an index of 75-84 may be offered provisional admission provided that they follow a curriculum tailored in conjunction with their academic advisor. Once the student completes 30 college-level credit hours with a 2.3 GPA or higher, the student then may declare a major in a baccalaureate program. If unsuccessful, the student will be placed on academic probation, consistent with the university's current policy, and advised to enroll in a program in the community college division. Students with an index below 75 will be admitted automatically to Western Colorado Community College.

Residency Status for Tuition Purposes

A student's tuition classification is governed by state law. For further information regarding tuition classification, please see the Expenses section of this catalog, or contact the Tuition Classification Officer located in the Admissions Office at 970.248.1458.

Confirmation of Attendance

Admitted students (first-time freshmen and first-time transfers) will receive information regarding the student's "next steps" highlighting important dates, housing information, payment information, student orientation dates, important phone numbers and many other necessary details about enrolling at Colorado Mesa University.

As soon as a student knows that they will be enrolling at Colorado Mesa University, s/he should log in to MAVzone and pay the $50 enrollment confirmation deposit. This deposit will be applied directly towards a student's tuition balance. If an admitted student plans to attend a different college, please notify the Colorado Mesa University Admissions Office. The deposit will be refunded if the student has withdrawn from all courses for which they registered prior to the end of the add/drop period.

Undergraduate Admission Assessment and Counseling Tests

ACT or SAT

Scores from either the ACT or the SAT are required of all degree-seeking students attending Colorado Mesa University, except in certain cases as detailed below. Test scores must be on file in the Admissions Office before official acceptance is granted. Certificate seeking students are not required to have ACT or SAT scores on file or to have taken the alternative assessment test. A student's attainment of a certain ACT composite score, or SAT combined score is one of several criteria considered for admission. Certain programs, such as Health Sciences, may require a minimum ACT or SAT score. For specific requirements, contact the appropriate academic department head.

ACT and SAT test results also are used by the student and advisor as the basis for planning a course of study and as an aid in academic placement. Supplemental academic assistance is provided on a limited basis for those whose test scores indicate weaknesses or deficiencies in certain areas such as English and mathematics. ACT and SAT scores also may be used for scholarship consideration and institutional research.

The only exemptions to this admission requirement are for:

1. Students who apply for admission to a two-year program;
2. Students enrolled only in no-credit desired/audit classes;
3. Students who have already earned an associate or baccalaureate degree at another regionally accredited institution;
4. Students who are transferring from other regionally accredited colleges or universities with 30 or more semester hours of credit.

Prospective students are encouraged to take the ACT or SAT during their high school junior or senior year. Transfer students (unless exempt) are required to have their ACT or SAT scores on file in the Admissions Office

prior to registration. ACT or SAT scores from a previous college or university are acceptable.

Assessment and Evaluation After Enrollment
Students are required to participate in testing and other programs necessary for evaluation and assessment purposes. Please see the Learning Progress Evaluation section in this catalog.

Acceleration of University Study

It is possible for students to satisfy requirements for baccalaureate degrees in less than the traditional four years (eight regular academic year semesters). Ways of accomplishing this include: enrolling in university classes while a junior or senior in high school; exceeding the normal course load at Colorado Mesa University or elsewhere; challenging by examination courses in which competence has previously been attained; earning credit by testing through the College Level Examination Program (CLEP), DANTES and/or Advanced Placement; obtaining credit for prior learning (competency credit). Additional information may be obtained from the Advising & Career Center, faculty advisors, or the Registrar's Office.

New Student Orientation

All new degree-seeking Colorado freshmen are required to attend a Student Orientation program in order to register for their first semester courses. Although not required, new degree-seeking transfer and out-of-state students are strongly encouraged to attend as well. Information regarding Student Orientation will be mailed to students upon notification of acceptance and also can be found on the Colorado Mesa University website at: coloradomesa.edu/orientation.

For proper academic advising and course placement, new students with low ACT or SAT scores must be assessed with a second instrument prior to a Student Orientation session. The instrument is called ACCUPLACER, and the student's ACT or SAT sub scores determine whether or not ACCUPLACER testing is necessary. To schedule an assessment, or for more information please contact the Testing Center, 970.248.1260.

Students must be admitted prior to attending Student Orientation. For more information, call 970.248.1875.

Stampede Weekend

Stampede Weekend is a required opening weekend program for first time students, beginning the Friday before classes each fall. Schedules and registration information are available at coloradomesa.edu/stampede.

Welcome Week

New students to Colorado Mesa University are strongly encouraged to participate in one of the Welcome Week programs offered at the beginning of fall and spring semesters. Welcome Week introduces new students to the campus, fellow classmates, and the university's programs and facilities. Parents of graduating high school students are encouraged to attend the Welcome Week program.

Freshman Year Initiative (F.Y.I.)

New freshman students are strongly encouraged to enroll in the university's Freshman Year Initiative (F.Y.I.) program. Students are registered for SUPP 101(Introduction to Higher Education) to maximize their potential for success in college. For more information, visit coloradomesa.edu/fyi.

Sophomore Year Experience (S.Y.E.)

Sophomore-level students can enroll in the university's Sophomore Year Experience course to assist them in selecting a major that compliments their career goals.

Financial Aid Information

Contact: Office of Financial Aid, Colorado Mesa University, Lowell Heiny Hall Room 117, 1100 North Avenue, Grand Junction, CO 81501-3122 • Call toll free 800.982.6372 or 970.248.1396.

Overview

Financial aid at Colorado Mesa University consists of a balanced program of self help, scholarships, and grants-in-aid awarded for outstanding academic achievement or outstanding performance in special skill areas including vocational skills, athletics, drama, music, etc. Colorado Mesa University also participates in federal and state programs of grants, loans, and student employment, the awarding of which is based primarily on need as determined by a need analysis system approved by the federal government. The application used to determine need is the Free Application for Federal Student Aid (FAFSA.)

Financial aid awards that are based on the need analysis system consider family resources as the primary source of funding for education, with federal and state sources considered secondary and supplemental. Because prospective students always apply for more financial aid than there is money available, the following priority order is used:

1. As stated in federal law, a parent is primarily responsible for payment of educational expenses of a dependent child. Thus, parents of students attending college are expected to make every effort to assist the student financially.
2. The student, as the benefactor of the educational experience, is the next most responsible person for payment of educational expenses.
3. The third level of responsibility is from outside sources such as communities, clubs, corporations, etc.
4. The last resort is federal and state financial aid programs. There has never been enough funding to assist all needy students. Therefore, students should make every effort to obtain assistance at one of the three levels listed above.

Accurate and timely information from the student and parents to the Financial Aid office is the responsibility of the student. Failure on the part of the student to supply accurate information on the application may result in reduction or total loss of aid.

Tuition Payment Plan

Colorado Mesa University provides a payment program designed to meet the specific needs of students and parents. Semester charges for tuition, fees and institutional room and board can be paid in monthly installments, beginning in August (for fall) and in January (for spring). There is a non-refundable application fee, due at the time of enrollment. Contact the Business Office for more information.

Scholarships

Scholarships represent an effort by the state of Colorado and Colorado Mesa University to recognize resident and non-resident students for outstanding achievement in academic and talent areas. Although need is not a factor in determining recipients, students who are awarded a scholarship are also encouraged to submit a financial aid application. While there is not a separate academic scholarship application, students may choose to submit an optional essay.

After students have been admitted to Colorado Mesa University, they will automatically be reviewed for academic scholarship awarding. For more detailed information on academic scholarships, please call the Admissions Office at 970.248.1875 or the Financial Aid Office at 970.248.1396. For detailed information regarding talent scholarships, please contact the appropriate academic department.

Colorado Student Aid Programs

Available to full-time, half-time and part-time students with priority given to full-time students.

1. **Colorado Grants**—Grants are awarded to Colorado resident students on the basis of documented financial need. Financial aid packages which include Colorado Grants may not exceed the documented financial need of the student.

2. **Colorado Work-Study**—The Work-Study program is designed to provide employment on campus for students with documented need and who meet the residency requirement for tuition purposes.

CMU Foundation Programs

The Colorado Mesa University Foundation is a non-profit organization governed by a Board of Directors. The board is comprised of talented and successful business and community leaders who recognize the University's pivotal role in the future of our state and wish to aid deserving students at Colorado Mesa University. This group, which functions independently of the University, raises funds for scholarships, student loans, and a variety of programs that enhance opportunities provided by the University. In addition, the foundation serves as a receiving and distribution agency for many established scholarships available to the students at Colorado Mesa University.

Private Scholarships—In addition to institutional scholarships, many scholarships and awards have been established for students of the University by individuals and organizations who recognize the importance of Colorado Mesa University to the community and have

a connection to the University. The amounts of the awards vary, but all are designed to apply toward tuition and fees. Contact the Financial Aid Office for additional information.

Federal Student Aid Programs

1. **Federal Pell Grant Program**—This is a grant program available to needy students enrolling in an eligible institution of post-secondary education.

2. **College Based Programs**—Colorado Mesa University participates in many other federal need-based student-aid programs. These include the (1) Federal Perkins Loan Program, (2) Federal Supplemental Educational Opportunity Grant Program, (3) Federal Work Study Program. Funding is awarded per federal guidelines and on a first-come, first served basis.

3. **Federal Direct Loan Program**—This is a loan program consisting of the Federal subsidized and unsubsidized Stafford Loan Program and the Federal Parent Loan for Undergraduate Students (PLUS). Details concerning these programs may be obtained from the Financial Aid Office or on the Colorado Mesa University website.

4. **Federal Teach Grant**—This is a grant awarded to students in exchange for teaching service. Details concerning this program may be obtained from the Financial Aid Office.

General Guidelines

Financial need for educational expenses is an essential requirement to qualify for assistance from most programs. Both full-time and less than full-time students will receive consideration.

Since financial need is the primary requirement for determining eligibility for assistance under any of the federal student aid programs, Colorado Mesa University requires that the student applicant submit the FAFSA to the federal processor as soon as possible after January 1. FAFSA on the Web is available at fafsa.gov.

Federal Direct Stafford Loans are initiated with the FAFSA application but require that a Master Promissory Note and Entrance Loan Counseling be completed for first-time borrowers at Colorado Mesa University. Electronic links for these processes are found at www.coloradomesa.edu/finaid.

Students must maintain satisfactory academic progress as noted with the award notification to remain eligible for financial aid.

Western Undergraduate Exchange (WUE)

The Western Undergraduate Exchange (WUE) tuition program allows students from 14 western states to attend Colorado Mesa University by paying one and one-half the cost of in-state tuition instead of out-of-state tuition. Students who are residents from the states of Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming are considered for the award; however, acceptance into WUE is not guaranteed. To be considered students must submit a completed CMU application, all required transcripts and/or test scores, and a copy of a valid WUE state driver's license. Shortly after admission, students with a minimum GPA of 2.0 and a permanent address in one of the WUE qualifying states will be notified of their WUE status via a separate award letter.

All undergraduate degree programs are open to WUE students. New freshman or transfer students (13-90 credits) enrolling for the first time at CMU are eligible for WUE consideration. Currently enrolled students cannot be considered for WUE after enrollment at CMU. Returning students (those sitting out one or more semesters) will be considered on an individual basis. Students with prior bachelor's degrees are ineligible. Through acceptance of the special WUE tuition classification, students acknowledge their intent to maintain their legal domicile in their home state at the time of application. If students desire to change their legal domicile to any other state, including Colorado, they must notify the WUE contact in the Admissions Office. At that time a student may be changed to out-of-state for tuition purposes. Please note that time accrued while participating in the WUE tuition program cannot be used to establish domiciliary intent for purposes of claiming Colorado residency. To maintain WUE program status, students must:

1. be enrolled in consecutive fall and spring terms registering in a minimum of 12 credits each semester. Summer term requires six credit hours;
2. maintain a minimum 2.0 CMU GPA each academic year;
3. remain a permanent resident of your home WUE state (maintaining your home state driver's license will be required); and
4. complete the reapplication process yearly as administered through the WUE contact person in the Admissions Office.

For more information please contact the Admissions Office at 970.248.1458.

Mountains and Plains (M&P)

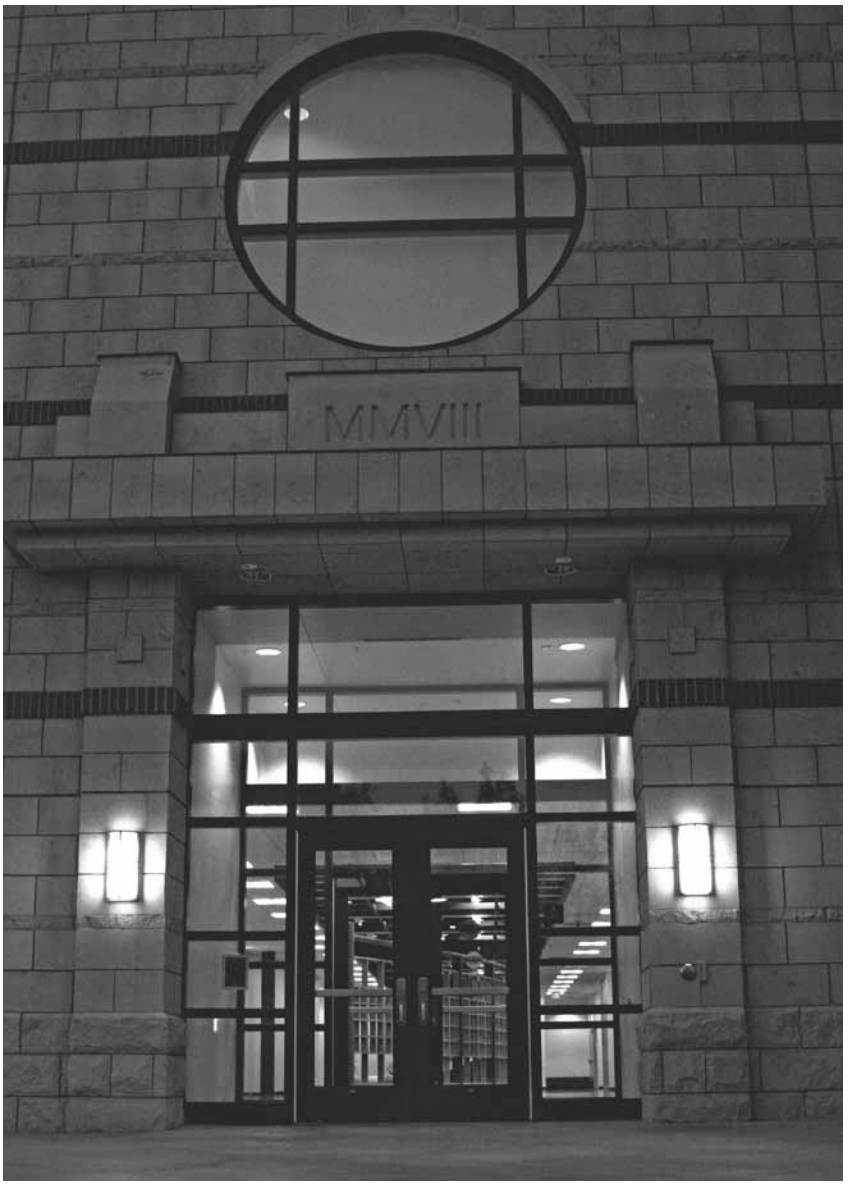
The Mountains and Plains (M&P) tuition program allows students from nine states to attend Colorado Mesa University by paying one and one-half the cost of in-state tuition instead of out of state tuition. Students who are residents from the states of Illinois, Indiana, Iowa, Kansas, Michigan, Missouri, Nebraska, Oklahoma, and Texas are considered for the award; however, acceptance into M&P is not guaranteed. To be considered students must submit a completed CMU application, all required transcripts and/or test scores, and a copy of a valid M&P state driver's license. Shortly after admission, students with a minimum GPA of 2.0 and a permanent address in one of the M&P qualifying states will be notified of their M&P status via a separate award letter.

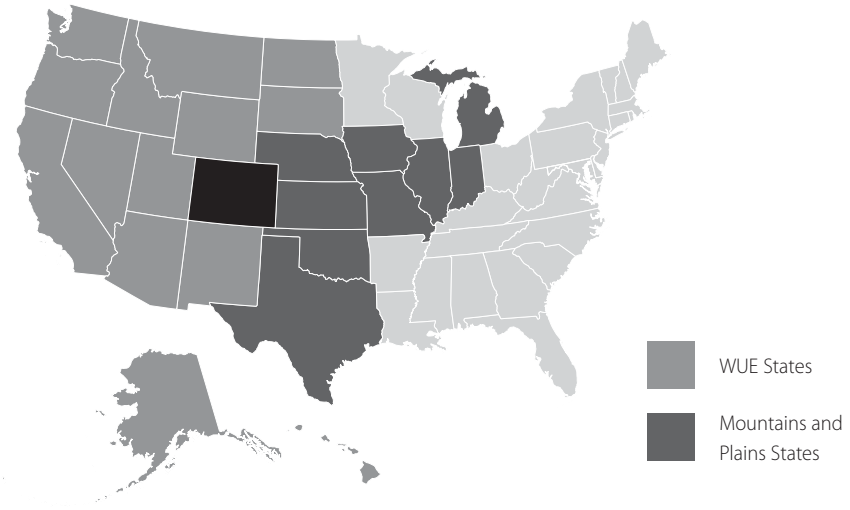
All undergraduate degree programs are open to M&P students. New freshman or transfer students (13-90 credits) enrolling for the first time at CMU are eligible for M&P consideration. Currently enrolled students cannot be considered for M&P after enrollment at CMU. Returning students (those sitting out one or more semesters) will be considered on an

individual basis. Students with prior bachelor's degrees are ineligible. Through acceptance of the special M&P tuition classification, students acknowledge their intent to maintain their legal domicile in their home state at the time of application. If students desire to change their legal domicile to any other state, including Colorado, they must notify the M&P contact in the Admissions Office. At that time a student may be changed to out of state for tuition purposes. Please note that time accrued while participating in the M&P tuition program cannot be used to establish domiciliary intent for purposes of claiming Colorado residency. To maintain M&P program status, students must:

1. be enrolled in consecutive fall and spring terms registering in a minimum of 12 credits each semester. Summer term requires six credit hours;
2. maintain a minimum 2.0 CMU GPA each academic year;
3. remain a permanent resident of your home M&P state (maintaining your home state driver's license will be required); and
4. complete the reapplication process yearly as administered through the M&P contact person in the Admissions Office.

For more information please contact the Admissions Office at 970.248.1458.





Expenses at Colorado Mesa University

Colorado Mesa University reserves the right to adjust any and all charges, including tuition, fees, and room and board, at any time deemed necessary by the Board of Trustees.

Determination of Residency Status for Tuition Purposes
Tuition classification is governed by state law (Colorado Revised Statutes, Sections 23-7-101 to 104 and 23-7-105) and by judicial decisions that apply to all public institutions of higher education in Colorado. Colorado Mesa University does not have discretion to make exceptions to the rules that are defined by state law. Although an individual may be considered a state resident for voting and other legal purposes after being in the state for a short period of time, the tuition law specifies additional requirements for classification as "in-state" for tuition purposes.

Initial tuition classification is determined from information a student supplies on an application for admissions to Colorado Mesa University. Failure to completely answer questions may lead to an initial classification of out-of-state for tuition purposes. A student's residency status will be stated within their admissions letter. Students who feel their classification is incorrect should contact the Admissions Office immediately.

Students who are entering university *immediately after completing high school* are granted in-state status if they answer YES to all of the following:

- Are you a United States citizen?
- Did you graduate from a CO public or private high school? (list school)
- Did you attend a CO high school for at least three consecutive years? (list specific years of attendance)

Students who did not graduate from a CO high school but hold a CO GED are granted in-state status if they answer YES to all the following:

- Are you a United States citizen?
- Did you successfully complete a GED test? (list test date)
- Did you reside in CO for the three years preceding the proposed first semester of enrollment at a CO college? (list specific years of residence)

New students seeking in-state status but unable to answer either of the above series of questions will need to completely answer all questions on the residency section of the admissions application for determination of their tuition status. Colorado statute requires physical presence (domicile) and intent to be a permanent resident of Colorado a full 12 months prior to the first day of the semester in which the student wishes to be considered in-state.

Residency for Students Under the Age of 23
Residency status for students who have not yet reached the age of 23 will be based on their parent(s) domicile. Students who are under the age of 23 and wish to be considered on their own accord must complete a Petition for In-State Tuition Classification and submit it along with supporting documentation for review. This group of students not only must prove physical presence and intent to be a permanent resident of Colorado for the full 12 months prior to the term, but also prove they have been able to financially support themselves without parental assistance. Students under the age of 23 who are either married, a single parent, or have served in the military service may also qualify on their own accord. The Residency Petition may be found on our website at: coloradomesa.edu/admissions/forms.html. Click on "Residency Petition" for a PDF version of the form.

Petitioning to Change from Out-of-State to In-State for Tuition Purposes
Students who began class at Colorado Mesa University as out-of-state for tuition purposes may petition for a change to in-state when they believe they have met state requirements. Colorado statute requires physical presence (domicile) and intent to be a permanent resident of Colorado a full 12 months prior to the first day of the semester in which the student wishes to be considered in-state. Intent to be a permanent resident requires severing ties from any previous state and creating them in Colorado. Such items include, but are not limited to: driver's license, vehicle registration, voter registration, and payment of Colorado state income tax. A student's way to inform us they believe they are eligible for a change in status is by completing a Petition for In-State Tuition Classification and submitting it along with requested documentation. Please see the link stated above for a PDF of the Residency Petition. The petition is to be submitted to the Tuition Classification Officer located in the Admissions Office. Please see the following stated deadlines for submission of residency petitions.

Petition Deadlines for Residency Status

SEMESTER	QUALIFYING CUT-OFF DATE*	SUBMIT PETITIONS NO EARLIER THAN…	SUBMIT PETITIONS NO LATER THAN…**
Spring 2012	First day of class	November 14, 2011	January 6, 2012
Summer 2012	First day of class	March 12, 2012	2 weeks prior to the first day of class
Fall 2012	First day of class	June 25, 2012	August 6, 2012
Spring 2013	First day of class	November 12, 2012	January 7, 2013

* Qualifying Cut-off Date: The date by which the 12-month physical presence period must have expired in order to possibly be classified in-state for the specified term. The 12-month period begins after a student has completed their move to the State of Colorado and has severed ties to their previous state of legal domicile, not merely when a student arrives in Colorado.

** Petition Deadline: The Tuition Classification Officer, located in the Admissions Office, must receive fully completed petitions by this date in order to be considered for the semester in question. Petitions received after this date will not be considered for the semester in question. Because a 12-month physical domicile must be proven, petitions will not be reviewed prior to the "No Earlier Than" date listed above.

Residency Appeals
Students who do not agree with the decision of the Tuition Classification Officer after review of their residency status may appeal the decision. Appeals must be made in writing and directed to the Tuition Classification Officer no later than 15 days from the date the denial decision was emailed to the student. The decision of the Residency Appeals Committee is the final university determination. For further residency related questions, contact the Tuition Classification Officer in the Admissions Office at 970.248.1458.

Tuition and Fees

The State of Colorado allocates money for Colorado in-state undergraduates to help offset the total tuition of their college education. The state's share of in-state tuition—paid from the College Opportunity Fund (COF)—is available for students once the student signs up for a COF voucher account and authorizes their Colorado Mesa University registration. The funds for the COF voucher will be sent directly to the institution. Students are then responsible only for their remaining share of total tuition.

Most in-state undergraduates qualify for participation in the program. Qualifications and the amount of the voucher are subject to actions by the Colorado General Assembly. Additional details are available on the Colorado Mesa University's website at coloradomesa.edu/cof.

To create a COF voucher account, a student must register at cof.college-assist.org and provide a limited amount of information. Note that the process of creating a voucher account is separate from applying for admission to Colorado Mesa University and can be completed at any time prior to enrolling. Qualifying students who do not establish an account into which the voucher can be deposited are responsible for both the state's and the student's share of tuition.

Tuition and fees for the 2011-2012 academic year are current as of the time that this catalog was printed. Students should check the University's website for the most current rates and information. Note that summer term pre-registration is held at the same time as pre-registration for fall term and follows a separate policy regarding refunds.

Tuition and Fee Schedule
The tuition rates and student fees shown below are for academic year 2011-2012; all rates are subject to change by the University's Board of Trustees. Rates and can be found online at coloradomesa.edu/businessoffice/expenses.html.

A one-time matriculation fee of $125.00 will be assessed. This fee takes the place of add/drop fees, transcript fees, graduation fees, etc.

Examples:

A. Undergraduate who is full-time, in-state, COF-eligible
(Note: 12 credit hours is full-time for financial aid purposes. COF availability and amounts are subject to change by actions of the Colorado General Assembly.)

Per Semester	
Total tuition for 12 credit hours each term	$3055.92
Less COF (state's share of tuition)	-$744.00
Equals student's share of tuition	$2,311.92
Plus general purpose student fees	$307.32
Equals total due from student	$2,619.24

B. Undergraduate who is full-time, out-of-state, non-COF-eligible *(Note: 12 credit hours is full-time for financial aid purposes)*

Per Semester	
Total tuition for 12 credit hours each term (= student's share of tuition)	$6,383.28
Plus general purpose student fees	$307.32
Equals total due from student	$6,690.60

C. Undergraduate who is part-time, in-state, COF-eligible

Tuition per credit hour	$254.66
Less COF per credit hour (state's share of tuition)	-$62.00
Equals student's share of tuition	$192.66
Plus general purpose student fees	$25.61
Equals total due from student per credit hour	$218.27

D. Undergraduate who is part-time, out-of-state, non-COF-eligible

Tuition per credit hour (= student's share of tuition)	$531.94
Plus general purpose student fees	$25.61
Equals total due from student per credit hour	$557.55

E. Graduate student who is in-state
Tuition per credit hour
Plus general purpose student fees
Equals total due from student per credit hour

F. Graduate student who is out-of-state
Tuition per credit hour
Plus general purpose student fees
Equals total due from student per credit hour

Graduate tuition and fees vary by discipline. Visit coloradomesa.edu/businessoffice/expenses.html for more information.

Student Liability for Tuition and Fees
Upon registration, students (or parents or legal guardian if student is a minor)incur a financial obligation to Colorado Mesa University. Anyone who registers for one or more classes is expected to pay the full amount of tuition and fees, unless they officially withdraw by the specified deadlines listed at coloradomesa.edu/registar/reginfo. All charges are due and payable on the first day of class. A 1% service charge will be assessed each month on all outstanding balances. No student will be allowed to register for classes, graduate or receive transcripts until their account is paid in full.

Students are liable for additional late fees and/or collection costs, including attorney fees and other charges necessary for the collection of any overdue financial obligation incurred by the student.

Student financial information is available on the Colorado Mesa University website. If you have any questions, contact the Business Office at 970.248.1567.

Other Fees and Expenses

Books and Supplies
Required textbooks and supplies are sold at the university bookstore, located in the College Center. Other items sold at the bookstore include general books, art supplies, basic school supplies, calculators, imprinted clothing, magazines, software and gift items.

The approximate cost of textbooks for a single semester is $500-$600 but varies with the program of study. Supply costs vary depending upon student preference and course requirements.

Textbooks may be returned within seven calendar days of purchase, provided the cash register receipt is shown as proof of purchase and the books have not been defaced. Extended return dates at the beginning of fall and spring semesters are posted in the bookstore and on the website.

The bookstore sponsors a book buy-back program that is conducted during the final examination week of fall and spring semesters only. Used books may be available for some classes.

Application, Evaluation, and Other Charges

Non-refundable fees:
Undergraduate Application and Evaluation Charge $30.00

Graduate Application and Evaluation Charge $50.00

Matriculation Charge $125.00

Housing Application Charge... $25.00

Other charges:
Room Reservation deposit.... $125.00
Enrollment deposit $50.00

Parking Permits:
Reserved $300.00
Residence Hall $125.00
Commuter $100.00
Motorcycle $30.00
Pay Lots. $1/hour
Faculty/Staff $100.00

Permits are valid for a full academic year.

Course-Specific Fees
When private and special instructional services are required, additional charges will be incurred by the student. Fees vary with the nature of the instruction. Private instruction in applied music is available from instructors approved by the university. Cost of this instruction is regular per credit hour tuition plus a specified amount for one thirty-minute lesson each week. Other special instructional services and courses that may require students to pay extra fees include labs, program-specific fees, courses with transportation fees for field trips, locker and towel facilities and kinesiology classes such as bowling, skiing and golf.

Student Health Insurance
Student health insurance is available each semester. Plan descriptions, enrollment forms and payments options can be found on-line at coloradomesa.edu/businessoffice. Enrollment must be completed by the established deadline each semester. Rates are established by the insurance providers and vary based on coverage selected.

Personal Computer Recommendation
Colorado Mesa University recognizes the importance of computers as educational tools to be used in the pursuit of higher education. Students are strongly encouraged, to the extent possible, to have a personal computer for their use while attending Colorado Mesa University.

Students who will be purchasing a personal computer should consider the following recommendations. By doing so, students will be able to complete most course work in the privacy of their own room/home.

General recommendation: Most name brand computers or computers purchased from reputable vendors will suffice for general college work. Computer performance is enhanced with sufficient random access memory (RAM), usually in the two to four gigabit (2 to 4GB) range.

Desktop versus laptop: Desktop computers are generally less expensive than laptops of comparable computing power. However, portability and wireless connectivity can make laptops a preferred choice as a desktop replacement or second computer.

Printer: For black and white printing, laser printers are more cost effective than ink jet printers in terms of toner/ink cost per page. Generally, ink jet printers are an acceptable choice for low volume color printing.

Connectivity: Wired and wireless access to the Internet are provided in all residence halls. Wireless connectivity is available throughout the campus in most buildings, classrooms, and commons areas.

Software: Students may be required to purchase specific software for specific courses. In some cases, students will purchase software along with the textbook used for the class at a nominal cost. Students should not purchase software until advised by instructors.

Students majoring in Mass Communication or Graphic Design mainly use Apple Macintosh. Majors are encouraged to consult with the appropriate department before purchasing a computer.

Refunds of Tuition and Fees
Refunds are based on withdrawal dates and vary each semester. Please see coloradomesa.edu/businessoffice for more information.

Student Financial Planning
If students need assistance with payment arrangements, financial planning and financial management, please contact the Student Financial Counselor at 970.248.1873, Lowell Heiny Hall, Room 112.

Matriculation Fee for New Undergraduate, Transfer, and Graduate Students
First-time students to Colorado Mesa University will be assessed a one-time, $125 matriculation fee in addition to the published tuition and fees for the courses unless they are accepted as non-degree seeking at Colorado Mesa University. This fee covers add/drop, career placement, credential (resume) services, graduation (petition), MAVcard, transcripts, and orientation.

Residence Life and Dining

On-campus living offers many advantages and choices. The location makes class attendance and activity participation very convenient for Colorado Mesa students. In addition, living on campus relieves the students of many time-consuming responsibilities that enable them to devote more energy to their studies, recreational activities, and making new friends. The many living options we offer help create different opportunities and experiences for you, the student.

Each residence hall is staffed with an Area Coordinator or Residence Hall Coordinator, as well as Resident Assistants who are trained to help students. Staff members support the educational mission of the University by helping residents adjust to college life, offering social and educational activities, explaining policies, answering questions, and acting as resources.

Residence Hall Choices
There are several choices of on-campus housing available:

1. Three traditional residence halls which require a meal plan (most rooms are designed for double occupancy, although there are a limited number of single rooms).
2. Two suite style residence halls with four people per suite that share one bathroom. This hall requires a meal plan;
3. Two suite style residence halls that house 2-8 people in a mixture of single, super single and double bedrooms – along with sharing two bathrooms and a living area. These halls require a meal plan;
4. Two smaller communities with 20-43 residents each. One is suite style that houses 10 people in each suite who share two bathrooms and a living area. The other is traditional style with 22 residents across three floors with two bathrooms per floor. A meal plan is required for both communities.
5. Two apartment complexes, available for sophomores, juniors, and seniors. This gives you the true apartment feel, while being on campus and close to everything at Colorado Mesa University.

Residence Hall and Dining Contract
Students who wish to apply for accommodations on campus are required to submit a $150 deposit with their signed contract and completed application. On-campus housing is not guaranteed, as availability is limited to approximately 1870 students. The deposit includes a $25 nonrefundable application fee. Fall housing assignments are chosen online by the students mid April through the end of June. Starting July 1 applicants will be placed using our auto-assign process until opening day.

The Residence Hall and Dining Contract is a legal agreement between the student and Colorado Mesa University regarding housing and meal plans on campus. The contract is in effect for the entire academic year. These services, however, are billed and payable by semester. The schedule for room and meal plan refunds is outlined in the contract.

Housing Requirement
First-year and sophomore students who are under 21 years of age and not residing with their parents in Mesa County are required to live on campus. Priority is based on the date the complete Residence Hall application and deposit are received by Residence Life. A student may qualify for exemption from the on-campus requirement for definite reasons expressed in writing and approved by Residence Life. Reasons include:

1. Married; or
2. 21 years of age or older; or
3. A part-time student (enrolled for less than 12 hours per semester); or
4. Residing at the permanent address of his/her parents or step-parents within Mesa County; or
5. Of junior class standing as of the beginning of the semester; or
6. Not of junior standing, but has resided in the Colorado Mesa University residence halls for four semesters; or
7. Medically accommodation the University is not able to satisfy with its available on-campus options (written documentation required); or
8. Placed on a waiting list due to limited space on campus.

Questions concerning housing on campus should be directed to Residence Life at 970.248.1536 or email housing@coloradomesa.edu.

Off-campus Housing
The university and Residence Life do not manage off-campus housing placements but attempts to assist students in locating housing. "Almost Home" is a Grand Junction community service for listing rental properties and roommate exchange. The listings are posted at www.catholicoutreach.org. Properties are not religiously affiliated.

Campus Dining
Campus Dining Services offers food service to students at Colorado Mesa University which includes a choice of four meal plans (prices are per semester):

Plan A, unlimited meals between 6:45 a.m. and 8:00 p.m. with $100 in MAVmoney;

Plan A+, unlimited meals between 6:45 a.m. and 8:00 p.m. with $200 MAVmoney;

Plan B, unlimited meals between 10:30 a.m. and 8:00 p.m. with $100 in MAVmoney;

Plan B+, unlimited meals between 10:30 a.m. and 8:00 p.m. with $200 MAVmoney.

Multiple entrees are served with unlimited seconds. Only two meals are served on Saturday and Sunday (brunch and dinner). Both meal plans have full access to brunch and dinner 10:30 a.m. to 1:30 p.m. and 5:00 p.m. to 8:00 p.m. Saturday night meals are served buffet style. Meals are planned with special needs in mind also, such as for the weight conscious or vegetarian.

Students living in traditional residence hall rooms or suites are required to select a meal plan. Students living in on-campus apartments or living off-campus may, if they wish, purchase meal plans and/ or MAVmoney. Meals are served seven days per week during the academic year with limited meals during short breaks. Commuter students are welcome to purchase any of the resident student meal plans, or try one of our commuter plans. Call 970.248.1742 or the MAVcard Office at 970.248.1059 for more information on dining services.

Room and Board Charges
All rates listed below are for the Fall 2011 semester, per student. A $20 per semester charge will be added to all residents' accounts for a non-refundable activity fee.

Room and Apartment Rates
*Meal plan required**

Albers, Elm, & Rait Residence Halls:
Double room $2,138.09*
Single room $2,912.32*

Pinon and Tolman Residence Halls:
Double room $2,077.00*
Single room $2,829.11*

Bunting Avenue Hall:
Double room $2,871.00*
Single room $2,913.00*
Single room-large $3,199.00*
Super single room $3,056.00*
Double stacked. $2,192.00*

Monument Residence Hall:
Double suite $2,458.45*

Grand Mesa Hall:
Double room $2,751.82*
Single room $3,047.99*
Super Single $3,345.36*

North Avenue Suites:
Double room $2,889.42*
Single room $3,200.39*

North Avenue Apartments:
Double room $3,160.26
Single room $3,486.04

Walnut Ridge Apartments:
Double room $2,755.08
Single room $3,326.67

Meal Plans
All rates are per semester. Meal plans are available to all students and mandatory for those living in a traditional or suite-style residence hall. Plan A and Plan B each include $100.00 in MAVmoney while Plan A+ and Plan B+ each include $200 of MAVmoney.

Plan A+ – Unlimited, 6:45 a.m. - 8 p.m.
$1,944.88
Plan A – Unlimited, 6:45 a.m. - 8 p.m.
$1,869.88
Plan B+ – Unlimited, 10:30 a.m. - 8 p.m.
$1,824.17
Plan B – Unlimited, 10:30 a.m. - 8 p.m.
$1,749.17

Contact Information
Mail: Residence Life
Colorado Mesa University
1100 North Avenue
Grand Junction, CO 81501
Phone: 970.248.1536
Fax: 970.248.1979
Email: reslife@coloradomesa.edu
Web: coloradomesa.edu/reslife

Academic & Student Services, Offices, & Activities

Contact: Office of Academic Affairs, 970.248.1881
Office of Student Services, 970.248.1366

Admissions Office
1100 North Avenue
800.982.6372 or 970.248.1875
The Admissions Office serves as the initial point of contact for prospective students and their families. Among the staff's responsibilities are the recruitment of students and the processing of admissions applications and petitions for changes to residency classification for tuition purposes. Activities of the University's student ambassadors are also coordinated through this office.

Advising & Career Center
Lowell Heiny Hall, Room 127
970.248.1177
Advising is available from two sources: the Advising & Career Center staff and the faculty. The Advising & Career Center assists students with undeclared majors; students who have declared majors should meet regularly with a faculty advisor. In addition, the Center assists employers in implementing recruitment strategies and supports Colorado Mesa University faculty with advising and career resources.

Undeclared students are assigned to the Advising & Career Center and must meet with an advisor prior to registration. Academic advisors guide students in scheduling classes that will count towards general education requirements and in career exploration. Students who have decided on a major will be directed to the appropriate academic department. A department's administrative assistant can officially declare/change the student's major/minor, provide a program sheet, and assign the student to a faculty advisor.

Program sheets outline the requirements of the degree or certificate program being pursued. Students should work closely with their faculty advisors throughout their program. The purpose of an advisor is to assist in the process of degree completion. It is the student's responsibility to maintain his/her program sheet and to keep it up-to-date as classes are completed. Advisors are not responsible for failure to meet degree requirements.

The Advising & Career Center provides the following services, free of charge, to students and alumni*:

- Academic Advising
  - New incoming freshmen
  - Non-degree seeking students
  - Undeclared returning students
  - Students considering changing their major
- Career Counseling
- Career Assessments
- Career Fairs
- Cover Letter & Resume Development
- Employment Preparedness Workshops
- Internship Information
- Major and Minor Selection
- Mock Interviews
- MAVjobs (job database)
- Referrals for Personal Counseling

*Some restrictions may apply.

Information about career fairs is posted to the Advising & Career Center website. The Center actively invites selected companies to visit the campus to conduct on-campus recruiting.

Recruiting information is posted to the Advising & Career Center website on the upcoming events page. Emails will also be sent to all students announcing the employer's campus visit.

Behavioral Clinical Services (BCS)
1005 North 12th Street
970.241.6500

Counseling Services
Counseling services are contracted by Behavioral Clinical Services (BCS). All students paying student fees are eligible for free counseling sessions each academic year. Referrals can be made through any office on campus and/or students may contact BCS directly for an appointment. All sessions are confidential. Students dealing with personal problems affecting their academic life are encouraged to talk with a professional counselor.

Alcohol/Drug Education
(Minor in Possession Group)
This program is designed for alcohol and drug abuse intervention and prevention. The University, which is an active participant in the Mesa County Prevention Policy Board, supports the concepts of proactive prevention and intervention as part of the University's overall policy of maintaining a safe and healthy campus. The Minor in Possession Group classes will consist of understanding the effects of binge drinking, drinking and driving, and the use of marijuana, methamphetamine, club drugs (GHB, ecstasy), and tobacco.

Clubs, Organizations, and Activities
University Center
970.248.1758

There are a number of student fee-funded organizations that are administered by Colorado Mesa University students including the following:

- Club Advisory Board (CAB): Many student clubs and organizations exist at Colorado Mesa University. Currently CMU has over 70 active clubs on campus including club sports, religious clubs, academic clubs and social clubs, which allow students to meet other students who share similar interests. A list of current active clubs and organizations can be viewed on the Colorado Mesa University website under student life.
- Associated Student Government (ASG): ASG is the representative body and official voice of the students. The ASG operates through the General Assembly, a legislative body composed of students elected by the student body. Students involved in ASG have an opportunity to gain leadership skills by representing student opinions to the CMU administration and the University's Board of Trustees, and they are responsible for reviewing and administering student fee requests.
- Cultural Diversity Board (CDB): This student organization offers leadership experiences for students and organizes programs to educate students regarding multicultural concerns and issues. Member groups include the Black Student Alliance (BSA), Gay-Straight Alliance (GSA), *Ho'olokahi* Polynesian Club, International Student Association (ISA), *La Raza*, and the Native American Student Council (NASC).
- Fine Arts Organizations: All CMU students are encouraged to audition to join a musical group, participate in theatre, or be part of a dance performance. Performances in the arts are highly regarded at Colorado Mesa University and are well attended by students and the community.
- Programming Activities Council (PAC): PAC is responsible for Welcome Week, Homecoming and MavFest as well as other entertainment activities including concerts, movies, dances, comedians, hypnotists and speakers. Best of all, these events are free for all CMU students.
- Media Organizations: These organizations include the student newspaper *The Criterion*, the student radio station, KMSA 91.3 FM, the literary and art publication *Literary Review, the Campus Design Studio and the Horizon Magazine*. Each of these groups is professionally advised by faculty members and utilizes the latest equipment employed in their fields.
- Outdoor Program: This group is CMU's headquarter for outdoor adventure and education. The OP organizes trips and classes including whitewater rafting, rock climbing, and skiing. The rental center is located next to the Housing and Residence Life Center. Rent mountain bikes, canoes, kayaks, cross-country skis, backpacks, and other gear.

Educational Access Services
Houston Hall , Room 108
970.248.1856
Support services for students with documented disabilities are available through Educational Access Services, a division of Academic Services. Several services are available, depending upon the documented disability. Services can include, but are not limited to, volunteer note takers, testing accommodations, and textbooks in alternate formats. Prospective students are encouraged to contact the Coordinator of Educational Access Services to discuss accommodations. Students must initiate a request for accommodations by contacting the EAS office. A new request must be made each semester.

Emergency Contact Services
Lowell Heiny Hall, Room 107
970.248.1366
The Office of the Vice President for Student Services, located in LHH 109, is the referral point for emergencies encountered by students. Issues such as messaging for emergencies while a student is in class are determined on a case-by-case basis. It is important to note that the office cannot guarantee a contact with any student due to their highly mobile behavior, but a good faith effort will be made. This service is not for non-emergency situations.

Financial Aid Office
Lowell Heiny Hall, Room 117
970.248.1396
The Financial Aid Office works with students to meet educational expenses through various monetary resources. Depending on a student's qualifications, aid is available in the form of scholarships and grants that do not need to be repaid. Additionally, students can apply for loans that are need- or non-need-based as well as work-study employment.

Financial Planning Office
Lowell Heiny Hall, Room 112
970.248.1873
If students need assistance with payment arrangements, financial planning and financial management, contact the Student Financial Counselor.

Health Center
1060 Orchard Avenue, Suite O
970.256.6345
Good health, both physical and emotional, is an important factor in successful college work. It is the goal of the Colorado Mesa University Student Health Center to provide competent, accessible medical care. Similar to the family physician, the Student Health Center provides a source of basic medical assistance for the student who is away from home.

Outpatient health services are provided for registered fee-paying students who have a valid student I.D. card regardless of the number of credit hours carried or insurance status. Students are required to pay a $15.00 co-pay for all services received at the Student Health Center. The primary services provided are: first aid, dispensing of simple medications, assessment and referral to specialty physicians and dentists, providing counsel for personal health problems, simple physicals, and limited lab tests for a nominal fee.

Services include a full-time registered nurse with a part-time physician and practitioner providing a complement of health care, Monday-Saturday 8 a.m. to 8 p.m and Sunday noon to 4 p.m. The physician/practitioner provides students with an initial health assessment and evaluation, treats minor illnesses, and refers students for hospitalization or specialized treatment as needed. A registered nurse is available to answer questions and provide medical information.

The Student Health Center is a contracted service with Community Hospital. It is located within easy walking distance of the college at 1060 Orchard Avenue, Suite O.

Hours of Operation:
Monday–Saturday: 8 a.m.–8 p.m.
Sunday: Noon–4 p.m.
Schedule an appointment on-line at yourcommunityhospital.com/MSCappoint.cfm or by calling 970-256-6345.

For emergency illnesses or accidents that occur after the Center's hours, students can access the Urgent Care Clinic, also located in Suite O. Immediate emergency help should be obtained by dialing 911.

Intercollegiate Athletics
Saunders Fieldhouse
970.248.1503
Intercollegiate athletics provides students with equitable opportunities to enhance their education, represent the University, and participate in athletics while developing skills and understanding. All undergraduate students are encouraged to participate in intercollegiate athletics as determined by their interests and capabilities.

Participation in the program, however, is secondary to the academic expectations of students. To this end, it is the responsibility of those administering the program to schedule the length of playing seasons, the frequency of practice sessions, and the number of contests so that they shall not unreasonably conflict with students obligations to attend class regularly, to study, to develop their intellectual, moral, and social faculties, and to graduate from the college as educated men and women. The men's program at Colorado Mesa University includes baseball, basketball, football, golf, soccer, swimming, tennis, and wrestling. Basketball, cross country, golf, soccer, softball, swimming, tennis, track and field, and volleyball are available to women.

Colorado Mesa University also has six emerging sports including cycling, hockey, lacrosse, rodeo, rugby, and skiing.

John U. Tomlinson Library
970.248.1862
Tomlinson Library supports the educational mission of the University by providing a diverse collection of materials for use by students and faculty.

Library materials are available in a variety of formats including print, e-books, audio and video; the majority of which can be checked out. Articles from journal titles are available through the library website. Materials from other libraries throughout Colorado and the U.S. can be requested for delivery and pick-up at the Main campus, WCCC or the Montrose Center.

Help using the library is available in person, at the reference desk, or through chat, email or telephoning 970.248.1860. The library is home to group study rooms, a silent study area, wireless network, computer labs, printing, scanning and photocopy capabilities. Tomlinson Library is accessible 24/7 via the web.

Little Mavericks Learning Center
1340 College Place
970.248.1318
Childcare is available for children of Colorado Mesa University students. The age limit is 1 year and walking up to 5 years. For further information, contact the Center Director.

MAVcard Student I.D.
University Center
970.248.1059
The Colorado Mesa University MAVcard is your key to campus services at Colorado Mesa University. The MAVcard can be used at Tomlinson Library, the Hamilton Recreation Center, the Dining Hall, Bookcliff Café, the CMU Bookstore, Pita Pit, Yoshibowl, J's Philly Steaks Main Street Bagels on North Avenue, Juice Junction, all of the campus dining locations as well as The Scramble at WCCC and for access to residence halls and athletic events. The MAVcard can be enhanced by linking to a free Wells Fargo® checking account, allowing free ATM usage, direct deposit, with access to an on-campus customer service branch.

Mentoring Assistance,
Student Services Office
Lowell Heiny Hall, Room 107
970.248.1441
The Student Services Office provides mentoring assistance for students who are struggling with a variety of issues. Students, or faculty on behalf of a student, may come to the mentoring office for assistance. Mentoring assistance will be provided for as long as it is needed.

International Student
Exchange Program
Academic Affairs
Lowell Heiny Hall, Room 207
970.248.1881
Colorado Mesa University is proud to join the International Student Exchange Program (ISEP). ISEP is a worldwide network of over 300 colleges and universities across 50 countries. Colorado Mesa University students pay CMU tuition and fees and can apply to spend a semester or full academic year at an ISEP foreign institution. A variety of exchange options are available. Go to isep.org and/or contact the Academic Affairs Office at 970.248.1881.

National Student Exchange Program
970.248.1613
Colorado Mesa University is a member of the National Student Exchange Program. NSE is a consortium of over 190 colleges and universities in the United States and its territories. Colorado Mesa University students may be able to participate in this program at in-state tuition rates for up to one academic year and receive full credit for course work completed while on exchange. For further information, contact the Admissions Office or visit coloradomesa.edu/nes.

Parking Services
College Center
970.248.1921
Students and University staff members who wish to park on campus may purchase parking permits for designated areas. A parking permit does not guarantee a parking space, but allows on-campus parking when such space is available.

Campus Recreation Services
Hamilton Recreation Center
970.248.1592
Campus Recreation Services is established to provide varied programs and services that will contribute to the health and well-being of the students of Colorado Mesa University. The program educates participants in the responsible use of leisure time by providing an atmosphere that fosters the development of lifelong patterns of recreational activities and opportunities for participation in such activities regardless of age, sex, race, or motor ability. To do so, facilities and resources

are designed to provide appropriate environments for participants through the following:

- Offering structured competitive and social opportunities in a variety of individual and team sports (Intramural Sports Program and Club Sports). Intramural sports include flag football, softball, volleyball, basketball, indoor and outdoor soccer, ultimate Frisbee, disc golf, badminton, tennis, racquetball, and dodgeball. Club sports include cycling, rodeo, rugby, hockey, women's water polo, men's volleyball, men's soccer, and men's swimming.
- Providing access to recreation facilities, equipment, and activities for convenient, informal participation (Open Recreation Program). These facilities include a multi-sport gymnasium, cardio machines, weight training circuit machines, free weights, indoor track, racquetball courts, climbing wall, and swimming pool.
- Offering structured and non-structured opportunities for improving and maintaining physical fitness (Fitness/Wellness Program). These opportunities include aerobics classes, yoga, fitness assessments, exercise program prescription, massage therapy, and personal training.
- Offering students significant opportunities for career development, including the acquisition of leadership, management, and technical skills in all areas of Campus Recreation Services (Student Employment Program).

Registrar's Office
Lowell Heiny Hall, Room 121
970.248.1555
The Registrar's Office provides a variety of services that include registering students into classes, maintaining academic records, V.A. benefits and certifying degree requirements for graduation. The office is responsible for processing applications for readmission to Colorado Mesa University, as well as forms to add/drop a class, holds on registration, change of address, non-release of directory information protected by federal law, and enrollment verification for loan or insurance purposes. The office also prepares Colorado Mesa University transcripts and evaluates transcripts from other institutions to determine the number of credits that will apply toward a particular degree.

Student Diversity & Advocacy
Student Services Office
Lowell Heiny Hall, Room 107
The Student Diversity and Advocacy office works alongside the office of Student Services to support a diverse student body of Colorado Mesa University. This office specializes in problem solving and helping students to become better informed and grow as adults; whether these decisions involve classes or any other aspect of university life. Student Diversity and Advocacy provides for students and faculty the experience of interacting and learning together to respect a broad range of people from diverse backgrounds. This offers an arena for students to have a greater appreciation and understanding of cultural diversity, and be prepared to take on leadership roles in society.

Testing Center
Houston Hall, Room 125
970.248.1260
The Testing Center services include, but are not limited to, examinations required for admission to graduate and professional schools, examinations for proficiency and certification in nursing and teaching, and the credit by examination program. Assessment of academic skills in college level English and mathematics are provided through the center for potential students as well as those who already have been admitted.

Transfer Services
Admissions Office
970.248.1232
The Center for Transfer Services, within the Admissions Office, offers assistance to students transferring into Colorado Mesa University from other institutions. Services include preliminary transcript evaluation, education planning, transition to academic departments, and resolution of transfer problems. Transfer Services staff is available by appointment and for walk-ins. As part of the Admissions Office, the Center works closely with the Registrar's Office to provide students with information about their transfer credits and how those credits may be applied.

TRiO Student Support Services Program
Houston Hall, Room 121A
970.248.1770
The TRiO Student Support Services Program is sponsored by Colorado Mesa University and the U.S. Department of Education. This program is funded to provide academic and mentoring support throughout a student's academic career at Colorado Mesa University and to increase retention and graduation rates of first generation, low income or disabled students. The program will assist qualified students with tutoring, advising, counseling, financial aid advising and mentoring. Individual Degree Plans (IDP) are also developed for selected applicants and participants.

Tutorial Services
Houston Hall, Room 113
970.248.1392
The Tutorial Learning Center (TLC) provides free walk-in tutoring for a variety of courses and subjects. Students who would like to improve their writing skills, work through math, science, or other technical concepts, review material for any subject, or get one-on-one assistance and support from other successful students, are all encouraged to come to the TLC. Qualified peer tutors, recommended by faculty, are trained to help students with their academic endeavors. The central goals of peer tutors are to help students become more independent with their learning and to create opportunities for student success. Peer tutors accomplish these goals with individuals and small groups by:

1) Offering study tips;
2) Giving feedback on student assignments;
3) Reviewing concepts, types of problems, and rules;
4) Offering encouragement;
5) Helping students follow an instructor's directions and use their textbooks, syllabi, and materials more effectively;
6) Introducing students the many self-help and campus resources available to them; and
7) Reinforcing what students already know and understand.

Registration Policies and Procedures

Contact: Office of the Registrar, Lowell Heiny Hall Room 121, Colorado Mesa University, 1100 North Avenue, Grand Junction, CO 81501-3122. Call 970.248.1555.

Overview

Once admitted to Colorado Mesa University, a student meets with an academic advisor (see Academic Advising section). Not all courses available in this catalog are offered every semester or every year. Course schedule offerings for each semester, including registration instructions, are available through the Colorado Mesa University website at coloradomesa.edu and in the Registrar's Office. Students may register via MAVzone or in person at the Registrar's Office.

Student Liability for Tuition & Fees

For all students, the act of registration automatically confirms attendance and the student will incur a financial obligation to the University. A registered student is responsible for paying his/her tuition and fees, regardless of whether or not he/she attend classes, unless the student officially withdraws from the University through the Registrar's Office or drops all courses via the web prior to the deadlines published on the Colorado Mesa University website. It is the student's responsibility to make a copy of the schedule reflecting any courses dropped via the web.

Attendance

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade or exclusion from class at the discretion of the instructor. At any time during a semester, a student who fails to attend regularly may be dropped from class rolls. An instructor may initiate a drop or withdrawal for a student who fails to attend classes regularly. ("Drops" are up to 15% of class elapsed; "withdrawals" are up to the mid-point of the class.)

Attendance during the first two class periods is required. Any instructor has the option of dropping any student who fails to attend the first two class meetings so that other students may enroll. Not all instructors will exercise this option; therefore, a student should not assume that non-attendance will result in an automatic drop from a class.

It is the responsibility of the student to arrange in advance with instructors for making up missed classwork, assignments or tests incurred because of a student's participation in required field trips, intercollegiate sports, or other trips. The coach, instructor, or other official whose activities require students to be absent from classes should give each participating student an "official" roster and schedule of events for the semester or other appropriate time span which may result in classes being missed. The student is responsible for contacting the instructor of each of his/her classes affected at least 24 hours in advance of each class that will be missed.

Absences due to serious illness or strictly unavoidable circumstances may be excused if the instructor in charge of the course is satisfied as to the cause. In the case of an emergency, the student may contact the Office of the Vice President for Student Services, and that office will contact the student's

instructors to inform them of the emergency.

Being excused for an absence in no way relieves the student of responsibility for completing all work associated with the course to the satisfaction of the instructor. Being late to a class or leaving a class early is disruptive and is not acceptable except in extreme circumstances or with prior approval of the instructor. Prior approval is also required of the instructor if a student wishes to bring a guest (or a child) to class.

Students who receive financial aid and cease attending all classes without formally withdrawing may need to repay a portion of their financial aid.

Add/Drops—Schedule Adjustments

Students may make adjustments to their schedules according to specified deadlines and procedures published on the Colorado Mesa University website. Students dropping all of their courses should refer to the Withdrawal section of this catalog.

Withdrawal Procedures

Withdrawal from Individual Classes
Students may withdraw from individual classes (full semester duration, modular, and summer) via MAVzone prior to the start of the session (semester or modular). Once the session has begun, a withdrawal is permitted up to the mid-point of those classes. See the calendar on the Colorado Mesa University website for details. After the session has begun, a Change of Schedule form, properly completed and with the instructor's signature, is required and must be submitted to the Registrar's Office by the deadlines published on the Colorado Mesa University website. Forms are available in the Registrar's Office. Students who officially withdraw from a course prior to the date of mid-semester (see website for specific date) will receive a "W." Students who withdraw after the deadline will automatically receive a grade of "F" except for cases with extenuating, non-academic reasons.

In addition to regular withdrawal from class(es) by the student, an instructor may initiate a withdrawal from his or her class for failure to attend class, failure to turn in assignments over an extended period of time, or for disciplinary reasons. In such cases, the instructor must observe regular withdrawal deadlines.

Total Withdrawal from the College
Students who desire to withdraw totally from Colorado Mesa University are advised to notify their faculty advisor or the Advising and Career Center prior to obtaining the appropriate paperwork from the Registrar's Office.

Prior to the first day of the semester, students may totally withdraw from Colorado Mesa University by dropping all classes via MAVzone. If a student desires to totally withdraw after the semester has begun, he/she must submit a Total Withdraw form to the Registrar's Office. See the calendar on the Colorado Mesa University website for details. The necessary withdrawal papers must be filled out by the student and officially signed by the appropriate staff. Grades of "W" will be given if done so before the deadline and if all withdrawal procedures have been satisfied for courses in which the student has not already received a grade (including F). Students totally withdrawing after the deadline will receive grades of "F." Exceptions to the withdrawal deadline are possible and are considered only by written appeal in the case of substantial non-academic circumstances outside the student's control. The Appeals Committee will review completed, documented requests. Appeal forms are available in the Registrar's Office.

Family Educational Rights & Privacy Act

General Policy
The Family Educational Rights and Privacy Act (FERPA) provides students who are enrolled in an institution of postsecondary education the right to inspect, review, and challenge their educational records. Colorado Mesa University has the responsibility of maintaining and protecting the confidentiality of students' official educational records. Colorado Mesa University also supervises the access to and/or release of educational records of its students. FERPA covers enrolled and former students, including deceased students. Students who are not accepted to Colorado Mesa University, or if accepted, do not attend, have no rights under FERPA. In addition, the University will not release personally identifiable records of students to any individual, agency or organization without the prior written consent of the student, except as provided by FERPA.

Directory Information
Colorado Mesa University may, without the consent of the student, release to persons outside the institution information designated as Directory Information in accordance with the provisions of FERPA. Directory Information shall include information in an educational record which would not generally be considered harmful or an invasion of privacy if released, including but not limited to:

1. Student name, address, telephone #
2. Date and place of birth
3. Major fields of study
4. Participation in officially recognized activities and sports
5. Weight and height of athletic team members
6. Photographs
7. Dates of attendance to include enrollment status (i.e., full time or part time)
8. Degrees and awards received
9. Most recent educational institution attended
10. E-mail address

Note: At any time, a student may request to the Registrar's Office that Directory Information not be released to other parties without written permission. This request will be honored until the student requests in writing that Directory Information be disclosed.

Access to Student Educational Records
FERPA provides current students, former students, and parents of students who claim the student as a dependent (according to Internal Revenue Code of 1954, Section 152) for income tax purposes on their most current federal tax return the right to inspect, review, and challenge their educational records.

Students are permitted to inspect and review their educational records within a maximum of 45 days after the request is received. Students may not review financial information received from their parents or guardians; confidential letters and recommendations placed in their files prior to January 1, 1975; academic records containing information regarding other students; administrative, disciplinary, law enforcement, student health records, and/or records which are maintained in the sole possession of the maker.

While students who have a financial hold or past due account (all holds included) have a right to inspect their academic records, no transcript will be released to the student or other party until holds are reconciled. Bankruptcy, however, removes any financial obligations the student has to Colorado Mesa University. Please contact the Registrar's Office with questions regarding this policy.

No-Credit Desired/ Audit Courses

A student who desires to attend certain undergraduate classes regularly, but does not wish to receive grades or credit, should register for "no-credit desired" in these classes.

Tuition charges for classes taken under the "no-credit desired" category are the same as for classes taken for credit, but are not eligible for the COF voucher.

The deadline for a student to change from "no-credit desired/audit," to credit is the same as the deadline to add a class. The last day for a student to change from credit to "no-credit desired/audit" is the same as the deadline to drop a class.

Golden Scholars
(formerly Senior Passport Program)

Colorado Mesa University provides individualized support, including academic and scheduling decisions, for persons 60 years and older. For more information, contact the Registrar's Office.

Classes for Credit
Persons 60 years or older who wish to enroll for credit must submit required admission and registration materials to the Admissions Office. The same deadlines, costs, etc., as for other students will apply.

Classes for No Credit
Persons 60 years of age or older who do not wish to earn college credit may attend undergraduate resident instruction classes on a space-available, instructor-approved basis at Colorado Mesa University for a reduced fee.

Interested persons should obtain an application from the Registrar's Office. Once admitted, registration for classes is at the beginning of the semester either through MAVzone or the Registrar's Office. Courses needing special permission must have faculty approval on a signed Add/Drop Form submitted to the Registrar's Office.

General Undergraduate Academic Policies

Student Load and Limitations

The normal student load is 15 semester hours (some disciplines require a higher number). The minimum load required for a student to be recognized as a full-time student is 12 semester hours. If students register for fewer than 12 semester hours, they are classified as part-time students.

Students receiving scholarships and/or financial aid are generally expected to complete 12 hours of credit courses each semester. In order to receive full Veteran's Administration financial benefits, veterans must be enrolled in 12 or more semester hours each semester of attendance, for the entire semester.

It is recommended that students in good academic standing limit their academic load to 18 semester hours or fewer. Students should consult with their advisors before attempting an overload of more than 18 semester hours in a regular semester or more than nine semester hours in a summer term. Students earning a cumulative Colorado Mesa University grade point average of 2.00 or lower will be limited to 15 credit hours per semester.

Classification Status

A student is classified based on the number of semester hours successfully completed as follows:

0 - 30 Freshman
31-60 Sophomore
61-90 Junior
91+ Senior

Grading System

Grades at Colorado Mesa University are as follows:

A = Excellent to superior;
B = Good to excellent;
C = Satisfactory;
D = Passing but not satisfactory;
F = Fail;
I = Incomplete;
IP = In progress;
W = Withdraw;
NC = No credit;
P = Pass.

Incomplete ("I") grades are temporary grades given to a student only in an emergency case and at the discretion of the instructor.

At the end of the semester following the one in which an "I" is given, the "I" becomes the grade that is submitted by the instructor to the Registrar's Office. If the instructor does not submit a grade by the deadline for that semester, the grade becomes an "F." A grade of "I" given spring semester must be addressed by the end of the following fall term.

Extension of the time to complete work may be made in exceptional circumstances at the discretion of the instructor. A student with an "I" grade, however, may not change the "I" by enrolling in the same course another semester.

Grades of "P" are passing grades and are not included in the GPA. "P" grades at the undergraduate level are only used for zero credit hour courses or non-traditional credits such as CLEP, AP, military credits, etc., and may be applicable toward graduation.

Academic Standards

The scholastic standing of a student at Colorado Mesa University is computed on the basis of all courses attempted at Colorado Mesa University (unless academic renewal has been approved; see next page). Grades awarded from any other institution will not be utilized in the grade point average (GPA) calculation.

Colorado Mesa University uses the four point system in computing the grade point average of its students. Under this system, a student receives four quality points for each semester hour of A; three points for each semester hour of B; two points for each semester hour of C; one point for each semester hour of D; and no quality points for an F. An example follows:

3 Semester Hours of A =	12 points
3 Semester Hours of B =	9 points
3 Semester Hours of C =	6 points
3 Semester Hours of D =	3 points
3 Semester Hours of F =	0 points
15 Semester Hours	30 points

Thirty (30) points divided by 15 semester hours = 2.00 GPA

GPA Minimum

Students are considered to be making "satisfactory progress" toward a degree if they attain a cumulative GPA consistent with the table listed below. Incomplete ("I") and In Progress ("IP") grades are tentative grades and until changed are not considered in computing either the cumulative grade point average or the grade point average for the particular semester concerned. "W" hours do not count as hours attempted or in the GPA. (See section on Withdrawal Procedures)

Cumulative Credit Hours	Cumulative GPA
0 – 15	1.70
16 – 30	1.80
31 – 45	1.90
46 and above	2.00

Students failing to achieve the minimum GPAs listed above will be placed on academic probation. The student will remain on probation until the minimum GPA is achieved, providing the student earns a minimum semester GPA of 2.00. If a student already on academic probation fails to earn a semester GPA of 2.00, the student will be placed on academic suspension. The student will be prohibited from further attendance at Colorado Mesa University for a minimum of one semester (see Academic Probation and Suspension section.)

A student must achieve a cumulative grade point average of 2.00 or higher to graduate at the certificate, associate, or baccalaureate level. Some programs have additional GPA requirements to remain in and graduate from that program. See Programs of Study section and subject program sheet for specifics.

Calculation of Grade Point Average for Graduation

Only the grades and credits awarded at Colorado Mesa University will be used in calculating the student's grade point average for graduation. Grades awarded from any other institution will not be utilized in the grade point average calculation.

The specific discipline area program requirements must be completed as required by the appropriate academic department with a cumulative grade point average of 2.00 or higher.

Academic Probation and Suspension

Good Standing signifies that the student is making satisfactory academic progress (see Academic Standards section) and is eligible to continue studies at Colorado Mesa University.

Academic Probation indicates a student is not in good standing and constitutes a warning to the student that the student's scholastic achievement needs improvement or suspension will result. Students will be placed on academic probation if their cumulative grade point average at Colorado Mesa University falls below the minimums listed under GPA minimum.

Upon being placed on academic probation, students are permitted to continue studies for one semester, during which time they are expected to improve their cumulative grade point average to the minimum required levels. Those who succeed will be removed from academic probation.

Students on academic probation will remain on academic probation until they raise their cumulative grade point average to the required level. Once on probation, a student must maintain a minimum semester grade point average of 2.00 to avoid being placed on academic suspension. Additionally, students with a cumulative Colorado Mesa University grade point average of 2.00 or lower will be limited to 15 credit hours per semester.

Academic Suspension indicates the student is not in good standing and represents a temporary, involuntary separation of the student from the University for a minimum of one semester for failure to meet minimum academic standards.

Following an academic suspension, a student must apply for readmission to Colorado Mesa University. For degree programs that do not have separate admission policies, the readmission to Colorado Mesa University is also readmission to the degree program as long as the degree still exists. For degree programs having admission policies over and above admission to Colorado Mesa University, the student must also reapply to the degree program.

A student may be suspended from and readmitted to Colorado Mesa University a maximum of two times. Academic suspension, when imposed, becomes effective immediately upon the recording of grades at the end of the semester or summer term.

The first suspension shall be for a period of one semester; i.e., a student suspended at the end of fall semester may not attend the following spring semester; a student suspended at the end of spring semester may not attend the following summer and fall semesters. A student suspended at the end of summer term may not attend the following fall semester.

The second suspension shall be for a period of two semesters (i.e., a student suspended at the end of fall semester may not attend the next spring or fall semester; a student suspended at the end of spring semester may not attend the following fall or spring semester). A student suspended at the end of summer term may not attend the following fall or spring semester.

Students may not enroll in any credit classes whatsoever (including summer term) during the period of suspension.

Course Repeat/ Grade Improvement

Any course which is taken more than once for academic credit at Colorado Mesa University is done so only for "grade improvement" wherein academic credit is awarded only once and the last grade received is the one used to compute the student's cumulative grade point average and to fulfill requirements for the degree.

Exceptions to this policy are DANC (performing dance), MUSL (music lessons) and MUSP (performing music) classes, each of which may be taken twice for academic credit; Independent Studies (a maximum of six semester credit hours may be taken for credit – see the Independent Study section in this catalog); and in some cases Topics, Practica, Seminars, Internships, Structured Research, and Cooperative Education. See program sheets and the appropriate department head or director for these exceptions.

Additionally, program-specific exceptions to retaking courses for grade improvement may exist regarding courses in the major and may supersede the University's general policy. Students should check with the head of the academic department for their major to determine if there are any restrictions for repeating a course.

The option of repeating a course for grade improvement is available to a student only if the course s/he wishes to repeat is still offered at Colorado Mesa University and is scheduled to be offered in the semester in which the student wishes to take it. The last grade earned will be the grade used, whether better or worse than the earlier grade(s).

Courses taken at Colorado Mesa University may not be repeated at another university for improvement of the original grade and courses taken at another university may not be repeated at Colorado Mesa University for improvement of the original grade.

Academic Renewal

A student who re-enrolls at Colorado Mesa University following an absence of at least five years may be eligible for academic renewal. If academic renewal is approved, none of the course credits and grades earned at Colorado Mesa University prior to the five-year minimum absence will be used for meeting graduation

requirements or in determining the student's grade point average.

Among the requirements to be eligible to apply/petition for "academic renewal" is that the student must have completed 24 academic course credits at Colorado Mesa University, excluding kinesiology courses and remedial courses below the 100 level, with a minimum grade point average of 3.00. The student must apply/petition in the Registrar's Office no later than the semester following the completion of these 24 semester credit hours. Matriculation and/or course completion at other institutions during the five-year period of absence has no bearing on the application/petition.

Non-Traditional Credit

Non-traditional credit can be earned from sources such as the following:

1. **Advanced Placement Program**
Students wishing academic credit or advanced placement for college level work done while enrolled in high school should take the appropriate College Board Advanced Placement examination. These exams are administered several times each year at numerous locations throughout the United States. College Board Advanced Placement examination scores currently accepted by Colorado Mesa University are: Studio Art-General; Studio Art-Drawing; Art History; Biology; Chemistry; Computer Science A; Computer Science AB; Macroeconomics; Microeconomics; English Literature & Composition; English Language & Composition; French Language; French Literature; German Language; German Literature; Latin-Virgil; Latin Literature; Spanish Language; Spanish Literature; Government & Politics-United States; Government & Politics-Comparative; US History; European History; World History; Human Geography; Mathematics-Calculus AB; Mathematics-Calculus BC; Music Theory; Physics B; Physics C;-Mechanics; Physics C-Electricity & Magnetism; Psychology; and Statistics.

The Registrar's Office will supply information concerning the scores required for earning academic credit in the various subject areas.

2. Credit by Examination and Department Challenge Exams
Students attending Colorado Mesa University and Western Colorado Community College may earn college credit by examination in certain subject areas through the College Level Examination Program (CLEP) and DANTES Examination Program. The Registrar's Office will supply information concerning the scores required for earning academic credit in the various subject areas.

Credit may also be earned by subject matter tests offered through various departments at Colorado Mesa University and Western Colorado Community College through departmental challenge exams. Students must have completed 12 semester credit hours of coursework at Colorado Mesa University before challenge exam credits will be recorded on a transcript. See the specific department for more information on possible challenge exam options.

3. International Baccalaureate Program
Colorado Mesa University recognizes the International Baccalaureate Diploma Program and awards credit to qualifying high school students based on their examination scores. For policy details contact the Registrar's Office or check the CMU website.

4. Credit for Prior Learning
The practice of awarding credit for college-level prior learning is based upon the belief that education which builds on, interprets, and incorporates past and present knowledge is the education that is most meaningful to the student. Colorado Mesa University and Western Colorado Community College recognize that students may have gained college-level knowledge and competencies through their work and life experiences which can be incorporated into their academic programs.

The development of a portfolio to demonstrate competency acquired through work or other life experience can be pursued for many technical or applications-based areas. Students wanting to pursue this option must enroll in the Portfolio Development Workshop SUPP 105 before creating a portfolio. The portfolio will be produced in collaboration with faculty from the desired department. Students must obtain course syllabi and complete the application for prior learning credit to participate in the Portfolio Development Workshop. For policy details see the Registrar's Office or check the CMU website.

5. Cooperative Education, Internships, Practica
Cooperative education is a working partnership in which an educational institution such as Colorado Mesa University or Western Colorado Community College joins with an employer in a structure relationship. The basic purpose is that of providing a means whereby a student can combine college study with a work experience which is under employer supervision to fulfill the total requirements of a particular educational program.

Cooperative education is a three-way partnership involving the student, the employer and the university. There is a great deal of difference between cooperative education and simply holding a job. Cooperative education is based on learning objectives which are related to the student's academic discipline and are established in cooperation with student, the employer, the faculty advisor, and others at Colorado Mesa University.

Typically, cooperative education is open to junior and senior students. Interested students should consult with their faculty advisor and academic department head or director. There are limits on the number of credits which will apply towards a degree. Graduate students should consult the Graduate Policies and Procedures section of this catalog.

Non-traditional Credit Guidelines
The faculty and department head of each department determine if and under what conditions non-traditional credit is allowed. If allowed, the following limits apply:

1. Military credits – maximum of 20 lower division semester credit hours.
2. CLEP, DANTES & Credit by Examination/Department Challenge Exams – maximum of 30 semester credit hours for a baccalaureate degree, 20 semester credit hours for an Associate of Applied Science degree, 12 semester credit hours for an Associate of Arts or an Associate of Science degree, and 6 semester

credit hours for a technical certificate. Students may not earn CLEP or DANTES credit in a class in which they have previously been enrolled including a class from which the student withdrew, so that the transcript shows a W, WP or WF. Students must receive approval and follow the procedure to challenge a course, including enrolling in that course. See the Registrar's Office for a copy of the procedure.

3. Advanced Placement – maximum of 30 semester credit hours for a baccalaureate degree, 15 semester credit hours for an associate degree, or six semester credit hours for a technical certificate.
4. International Baccalaureate – The subject exams and score shown on each student's transcript will determine the number of semester credit hours allowed. Maximum of 30 semester credit hours for a baccalaureate degree or 15 semester credit hours for an associate degree.
5. Credit for Prior Learning – maximum of 12 semester credit hours toward a baccalaureate degree or 25 percent of the total semester credit hours required for an associate degree at the prerogative of the department head. A student may earn the maximum of 25 percent of the total semester credit hours required toward the degree or certificate through portfolio assessment. Other restrictions may apply. See the Registrar's Office for details and guidelines or CMU website coloradomesa.edu/eso/pla.html.
6. Cooperative education, Internships, Practica, etc. – maximum of 15 semester credit hours may be used to satisfy the required academic semester credits for a baccalaureate degree and 6 semester credit hours may apply toward an Associate of Arts or Associate of Science degree. A maximum of 15 semester credit hours may apply toward the 40 upper division hour requirement. No restriction on the maximum number of semester credit hours above and beyond any degree requirement is intended. These restrictions do not apply to the Associate of Applied Science degree or technical certificate programs.

The total combination of non-traditional credit cannot exceed:

1. 30 semester credit hours for a baccalaureate degree;
2. 15 semester credit hours for an Associate of Arts or Associate of Science degree;
3. 20 semester credit hours for an Associate of Applied Science degree;
4. Twenty-five percent of the semester credit hours required for a technical certificate.

Independent Study

Independent study permits the motivated student an opportunity to expand his or her body of knowledge beyond the scope of the standard curriculum. It endeavors to foster qualities of self-initiative, organizational skills, self-discipline and independent thinking. It is expected that the student will engage in intensive study and research of the topic.

Independent study does not satisfy general education requirements or specific course requirements. Independent study hours may be taken for elective credit. Independent study is available only to students at the junior and senior levels except in certain certificate and A.A.S. programs and only in those disciplines listed in the Course Descriptions section of this catalog.

To be eligible for independent study, a student must have a minimum of eight semester credit hours in the discipline of the independent study area, as well as a minimum GPA of 2.75 within that discipline area. The work is to be completed within one semester from the initiation date and is limited to a total of six or fewer semester credit hours taken at Colorado Mesa University.

The department head or director of the academic department issuing credit must approve any exceptions.

A written contract is to be initiated by the student desiring independent study in consultation with a supervising instructor. The contract must include justification, description, monitoring, and evaluating procedures. Upon approval by the instructor and department

head, the student submits the signed, completed contract to the Office of the Registrar to register for the independent study course no later than the last day to add a full semester course.

Further restrictions apply in some disciplines. One example is the requirement that an application for independent study be completed in advance - in some cases six weeks prior to the end of the semester preceding the one in which the student wishes to take the independent study. Students wishing to take an independent study should check with the appropriate instructor and/or department head or director well in advance.

With permission of the instructor, students may register for regular classes but do the work independently, or on their own. This is not the same as "Independent Study." Students who have made prior arrangement with the instructor will still register for the regular course, and not for Independent Study.

Learning Progress Evaluation

The evaluation of a student's learning progress in a course is considered to be a planned and continuous process and consists of a variety of activities including judgment, observation, testing, etc. Final examinations are a part of the evaluation process.

Article 13 of House Bill 1187, enacted in July of 1985 by the Colorado General Assembly, established that institutions of higher education in Colorado are to be held accountable for demonstrable improvements in student knowledge, capacities, and skills between entrance and graduation.

Students are required by Colorado Mesa University to take part in testing and other programs deemed necessary for compliance with this legislation. Students who do not abide by these requirements may be denied registration and/or graduation privileges. Portions of the assessment process may require time outside the normal class periods.

Honor Lists

The President's List is made up of those students who earn a GPA of 4.00 while enrolled in a minimum of 12 semester hours for a particular semester.

The Dean's List includes students who achieve a grade point average of between 3.50 and 3.99 while enrolled in a minimum of 12 semester hours for a particular semester.

The lists are based on semester grades, not cumulative grade point averages. Regardless of grade point average, a student who receives a failing grade ("F") in any course is not eligible for the Dean's List.

To graduate with Honors or Distinction, the student's cumulative grade point average will be used in the determination of inclusion in the Honors/Distinction categories listed below. Each year during formal commencement ceremonies Colorado Mesa University recognizes the following categories of academic achievement:

For Associate Degrees:

With Distinction—
Associate degree graduates with cumulative grade point averages of 3.50 to 3.74.

With High Distinction—
Associate degree graduates with cumulative grade point averages of 3.75 to 4.00.

For Baccalaureate Degrees:

Cum Laude—
Baccalaureate degree graduates with cumulative grade point averages of 3.50 to 3.74.

Magna Cum Laude—
Baccalaureate degree graduates with cumulative grade point averages of 3.75 to 3.89.

Summa Cum Laude—
Baccalaureate degree graduates with cumulative grade point averages of 3.90 to 4.00.

Exceptions for students not explicitly meeting the criteria for a particular category may be recommended to the Vice President for Academic Affairs by the department head or director. The grade point average for honors/distinction at commencement does not include final-term, in-progress courses. The ultimate honors/distinction recognition to appear on the permanent record/transcript will reflect the appropriate category based on the inclusion of the final-term course grades required for the completion of degree requirements.

Honor Societies

Membership in **Alpha Chi** is the highest academic honor which Colorado Mesa University can bestow upon its scholars. To be eligible for election, students must have completed at least 75 semester hours toward the baccalaureate degree with a GPA of 3.75 or better and be fully recognized by their faculty and department heads as having the qualities of character pertaining to the true scholar. Alpha Chi is the second oldest and second largest of those national scholastic honoraries which elect members from all academic fields.

Alpha Phi Sigma is the national honor society in criminal justice. For membership in Alpha Phi Sigma, a political science major or other student who has completed at least four classes in criminal justice must maintain an overall GPA of 3.20.

Beta Beta Beta is the National Honor Society in Biology at Colorado Mesa University. For full membership in Beta Beta Beta, a biology major must have completed at least three classes in biology and have a minimum GPA of 3.00. With these qualifications, a student may be nominated for membership.

Kappa Mu Epsilon is an honor society for students of mathematics. Its chapters are located in colleges and universities of recognized standing which offer a strong mathematics major. The nominated and inducted members are selected from students of mathematics and other closely related fields who have maintained high standards of scholarship, have professional merit, and have attained academic distinction. The local chapter, Colorado Delta, is a working organization throughout the academic year. It functions as an integral part of the Computer Science, Mathematics, and Statistics Department of Colorado Mesa University.

Nu Kappa Chapter, Sigma Theta Tau International, recognizes achievement in nursing. The purposes of the society are to recognize superior achievement and leadership qualities, foster high professional standards, encourage creative work and strengthen commitment to the ideals and purposes of the profession. Students must have a minimum GPA of 3.00 and rank in the upper 35 percent of their class to be eligible for membership.

Nurses from the community may also be nominated for membership if they have demonstrated marked achievement in nursing education, practice, research or publication.

Phi Alpha Theta is the international honor society in history. The objective of this professional honor society is the promotion of the study of history through the encouragement of research, good teaching, publication, and the exchange of learning and thought among historians. To be eligible for membership, a student must have completed twelve or more hours of history with a minimum GPA in history of 3.10 and a minimum overall GPA of 3.00.

Pi Sigma Alpha is the national honor society in political science. For membership in Pi Sigma Alpha, a political science major or other student who has completed at least four classes in political science (three at the 300 or 400 level) must maintain an overall GPA of 3.00 and a 3.2 GPA in political science.

Psi Chi, the national honor society in psychology, is open for membership to students with either a major or minor in psychology. Minimum qualifications for membership are as follows: rank in the top 35% of one's class with a minimum 3.00 overall GPA; 3.25 psychology GPA; completion of 9 semester hours in psychology; and completion of at least three semesters of university coursework. The purpose of Psi Chi is to promote and maintain excellence in scholarship in the field of psychology and to advance the science of psychology.

Sigma Gamma Epsilon, a national honor society for the earth sciences, has for its objectives the scholastic and scientific advancement of its members and the extension of friendship and assistance among colleges, universities, and scientific schools for the advancement of the Earth Sciences. Membership in Zeta Nu Chapter of Sigma Gamma Epsilon is open to continuing Earth Science majors with at least twelve credit hours of Earth Science coursework completed with a minimum GPA of 3.00. Qualified students are reviewed and may be nominated each semester.

Sigma Pi Sigma is the national honor society in physics. For membership in Sigma Pi Sigma, a physics major or other student who has completed at least three classes in physics must maintain an overall GPA of 3.00 and a 3.25 GPA in physics. A qualifying student may then be nominated for membership by the combined physics faculty.

Sigma Tau Delta, the national English honor society, endeavors to encourage, promote, and recognize scholarship and achievement in English language and literature. Membership is open to sophomore, junior, and senior English majors with a minimum GPA of 3.00 in English.

Upsilon Pi Epsilon is the national honor society for computer science.

Student Conduct

Colorado Mesa University is a community consisting of students, faculty, support staff, and administrators. The University does not attempt to define all "student conduct." It relies on students to assume the responsibility and obligation of conducting themselves in a manner compatible with the purpose of the University as an educational institution and the community as a place of residence. In addition to University rules and regulations, all students are subject to the same local, state, and federal laws as non-students and are beneficiaries of the same safeguards of rights as non-students.

The academic community has a long and cherished tradition of expecting its members to conduct themselves in accordance with the highest standards of personal behavior. The following are among those acts of misconduct which are not consistent with the educational goals of Colorado Mesa University or with the traditions of the academic community:

1. Academic dishonesty, such as cheating, plagiarism, or knowingly furnishing false information to the University.
2. Forgery, alteration, misuse or mutilation of University documents, records, identification materials, or educational materials.
3. Obstruction or disruption of teaching, research, administrative, or public service functions of the University.
4. Intentional interference with an individual's rights to free speech, freedom to make academic inquiry, or freedom of conscience.
5. Aiding, abetting or inciting others to commit any act of misconduct set forth in 1 through 4 above.

Penalties for acts of misconduct including, but not limited to, those set forth above can range from official warning to expulsion from University, depending upon the seriousness of the misconduct. Detailed disciplinary procedures are available from the Office of the Vice President for Student Services, located in Lowell Heiny Hall 107.

Undergraduate Graduation Requirements

Contact: Office of the Registrar, Lowell Heiny Hall Room 121, Colorado Mesa University, 1100 North Avenue, Grand Junction CO 81501-3122. Call 970.248.1555.

Students are expected to assume responsibility for planning their academic programs in accordance with University and department policy. Each student is responsible for obtaining a program sheet, available online at coloradomesa.edu/academics or from the appropriate academic department, at the beginning of his/her work detailing the exact requirements for the degree or certificate being pursued. Students are urged to consult with their advisors. The University assumes no responsibility for difficulties arising when a student fails to establish and maintain contact with his or her faculty advisor and department head. The student is ultimately and solely responsible for knowing the requirements for a particular degree and for fulfilling those requirements.

Requirements for Degrees

Some requirements may vary with the program and academic department. Each student must abide by the rules set forth in the program sheet which may be obtained from the department offering the degree s/he is seeking. Candidates for all degrees must accomplish the following:

Graduation Checklist and Commencement Deadlines
Graduation documents are due the semester prior to completion of all coursework. The student should pick up an "Intent to Graduate" and "Graduation Planning Sheet" in the Registrar's Office. The student must then meet with his/her advisor and submit to the advisor his/her completed program sheet.

It is the student's responsibility to become familiar with the procedure established for his/her particular program, and to adhere to the designated schedule. The "Intent to Graduate" form must be submitted to the Registrar's Office on February 15 for fall graduates and September 15 for spring graduates. The deadline for summer graduates is February or September, depending on the ceremony in which the student wishes to participate. To participate in the May ceremony, the "Intent to Graduate" is due September 15 of the fall semester prior to the ceremony.

Deficiencies
All academic and financial deficiencies must be removed (i.e., incomplete grades and/or unpaid financial obligations).

Final Credit Requirements Taken at Another University
Colorado Mesa University generally accepts academic credits from regionally accredited colleges and universities. When a student intends to earn a Colorado Mesa University degree but the final credits for completing that

degree program are earned at another institution, the following restrictions apply:

1. Specific approval of the proposed institution and courses must be given by the appropriate academic department head and the Office of the Registrar at Colorado Mesa University during the time of the student's last enrollment at Colorado Mesa University, and the student must receive a grade of "C" or higher in each course.
2. No more than 15 semester hours of final credit will be accepted in transfer.
3. Credit must be earned in no more than one calendar year immediately following final enrollment at Colorado Mesa University.

Declaring a Major
The major the student lists on their application is considered for admission purposes. Once admitted, a student may change his/her major. In order to be admitted/declared into the major, the major must be accepting students and the student must meet the requirements to be admitted to the degree. Some majors have additional admission requirements. Students must visit the department for more information. Students with an undeclared major are required to declare a major or meet with an academic advisor prior to registration.

Students must contact the academic department associated with their desired major/minor to declare or change their major/minor and to be assigned a faculty advisor. Once students have declared a major/minor, they will need to obtain a program sheet online or from the academic department.

Catalog Under Which Student Graduates
A student must follow the Colorado Mesa University graduation requirements from the catalog of the same academic year as the program sheet for the declared major. This is true provided that (1) a student remains "continuously enrolled" until graduation and (2) the degree, emphasis or certificate area is still accepting students into the program when students officially declare their majors.

A student shall be considered to be "continuously enrolled" if there is not an interruption in enrollment of more than one semester at any given time (excluding summer sessions). If an interruption in enrollment occurs so that the student is no longer "continuously enrolled" as described above, the program sheet and catalog requirements applicable at the time of reenrollment shall apply.

If a candidate for a degree is unable to meet the requirements because of some unforeseen circumstance, it shall be the candidate's responsibility to arrange an exception or understanding approved by the student's faculty advisor and department head.

English and Mathematics Requirements
Colorado Mesa University students are required to complete English composition and mathematics for general education prior to exceeding sixty semester credit hours. Students should take the courses as freshmen. Those who need preparatory courses before they are ready to enroll in the required courses should enroll in the preparatory courses their first semester at Colorado Mesa University. Students who are completing sixty hours of course work will not be permitted to enroll in any additional courses until they have passed the required courses. Exceptions to the policy require the written permission of the appropriate department head (English or Mathematics) or their designee.

Wellness Requirement
To graduate with a baccalaureate degree, a student must earn three semester credit hours in Kinesiology. Each student must take KINE 100 and two activity courses.

To graduate with an associate degree, a student must earn two semester credit hours in Kinesiology. Each student must take KINE 100 and one activity course.

Kinesiology activity courses include those with the "KINA" prefix in addition to DANC 160L, 169L, 174L, 177L and 180. Each course is scheduled for an eight-week module and includes lectures on the history, rules, techniques, and strategies of the activity and participation in the activity. Students are examined both on knowledge of the activity and proficiency in the activity. Prerequisites for all "Intermediate" or Part II classes: the corresponding beginning course or consent of instructor.

1. The only exception to taking KINE 100 will be for those who request and pass a proficiency test at least at the 80 percent level. Contact the Kinesiology Department Head for additional information.
2. A course may be taken for credit only once, except for "grade improvement."
3. In addition to the required, up to six KINA courses may be taken as electives toward graduation with a baccalaureate degree. Up to three KINA courses may be taken as electives toward graduation with an associate degree (with the exception of varsity athletics).

See the Kinesiology Course Description section for the list of courses from which to choose for the KINA and DANC 160L, 169L, 174L, 177L and 180 activity courses.

Varsity Athletics: KINA180-193 designates the first year of varsity athletics; 280-293, the second; 380-393, the third; and 480-493, the fourth. These courses must be taken in sequence. In addition to the rules above for all KINA courses, the following apply:

1. Only one varsity sport activity course, numbered KINA 180-193, may be used to meet the baccalaureate KINA activity requirement.
2. A student may elect to register for a particular varsity sports class for credit as many as four times (once at each level).
3. Varsity sports activity credit at the 300 and 400 level may not be counted towards the 40 credit hour upper division requirement for graduation unless they are a required part of a degree program.

Philosophy & Goals of a Baccalaureate Education

The avowed hope of institutions of higher learning is that students will emerge with well-developed faculties for critical judgment, analytical thought, and an awareness of their world. In the university environment, students are expected to embrace some of the great ideas and expressions of creative energy which characterize the human condition. Specifically, a baccalaureate education emphasizes the following:

1. The origins and structure of modern society;
2. The enduring ideas which have inspired humanity through the ages;
3. The scientific perspective and its impact on society;
4. The expression of the creative spirit in literature and the arts;
5. The importance of becoming a contributing citizen;
6. The competencies needed for self-directed, ongoing learning; and
7. Advanced competencies within a specific discipline.

Colorado Mesa University reaffirms these ideals. They have been tested through the centuries in a tradition which harks back to the earliest universities. Their contemporary expression at Colorado Mesa University will strengthen the foundation of all academic programs.

Educated men and women share a basic body of perception and knowledge. This heritage is at the core of the mission of a baccalaureate university. Other aspects of a student's curriculum reflect particular talents and career aspirations, but this statement builds upon universals – the acknowledged foundations of the arts, letters, social and natural sciences in our civilization.

The design of general education has been guided by ten goals. A Colorado Mesa University baccalaureate graduate should:

1. Be able to communicate effectively in the English language;
2. Understand the structure and discipline of mathematical thought and its use in problem-solving;
3. Be aware of the great moral, ethical, and philosophical issues which have endured through the ages;
4. Have an understanding of the multicultural nature of our world;
5. Be able to think critically and creatively;
6. Have an understanding of the complexities of social, economic and political systems;
7. Have knowledge of the natural world and an understanding of scientific methods;
8. Appreciate the contributions of literature to our perception of ourselves and the world;
9. Appreciate the aesthetic spirit of humanity through the arts; and
10. Possess the knowledge and skills necessary to achieve a healthy lifestyle.

Requirements for a Baccalaureate Degree

Colorado Mesa University offers baccalaureate degrees in the traditional liberal arts and sciences disciplines, professional fields of study, and interdisciplinary fields. Candidates for baccalaureate degrees must accomplish or be governed by, as appropriate, the following:

Credit Hour Requirements
In general, 120 semester credit hours are required for completion of each baccalaureate degree program. The distribution of the 120 credit hour requirement is:

General Education:
31 semester credit hours

Applied Studies Requirement:
3 semester credit hours

Wellness Requirement:
3 semester credit hours

Major Requirements:
42-78 semester credit hours*

Degree Category Requirements: **
3 semester credit hours

Unrestricted Electives:
0-36 semester credit hours

** Some professional programs may exceed 60 hours.*
*** Applies to some but not all major programs. Consult your advisor or obtain a current program sheet.*

Note that the same course may not be counted to satisfy more than one category within a degree.

Students should work closely with their faculty advisors and obtain a program sheet online at coloradomesa.edu/academics, or from that faculty advisor or the department head at the time they begin their baccalaureate degree program at Colorado Mesa University. The student is ultimately and solely responsible for knowing the requirements for a particular degree and for fulfilling those requirements.

The program sheet lists all requirements for the degree program for the catalog under which the student is working. It is to be kept up-to-date by the student as the student progresses in meeting requirements.

The specific number of semester hours that must be earned in courses numbered 300 or higher are indicated on the program sheet. A cumulative grade point average of 2.00 or higher for all courses taken and for the courses which comprise the area of the major field of study must be achieved. See a faculty advisor for a program sheet listing specific requirements for the degree and major sought.

Upper-Division Requirements
Students seeking a baccalaureate degree must earn a minimum number of upper-division semester credit hours (numbered between 300 and 499), depending on the degree and major.

A minimum of 40 semester credit hours is required for all Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Science, and Bachelor of Business Administration degrees. Students seeking a Bachelor of Science in Nursing or Bachelor of Applied Science should refer to their program sheet for the minimum upper-division credit hour requirement.

Academic Residency for Baccalaureate Degrees
To receive a baccalaureate degree from Colorado Mesa University, students must complete a minimum of 28 semester hours of credit in no fewer than two semesters of study at Colorado Mesa University with at least 15 semester hours in major discipline courses numbered 300 or higher.

Degree Category
A three to six semester credit hour degree category requirement applies to some, but not all B.A. and B.S. degrees. When applicable, the requirements are a part of a major's program requirements and must be outside the general education requirements. Student must earn a grade of "C" or higher in each degree category course.

Bachelor of Applied Science
In order to obtain a Bachelor of Applied Science (B.A.S.) degree from Colorado Mesa University, the following are general requirements apply all B.A.S. degrees. All B.A.S. students are required to meet with the department B.A.S. advisor in order to plan and schedule all classes.

- Formal admission to a B.A.S. program requires completion of the appropriate A.A.S. degree from an accredited institution. Any exceptions to this must be approved in advance by the department B.A.S. advisor and the Department Head.
- In order to meet course prerequisites, additional courses may be required. Please meet with the B.A.S. advisor to insure all prerequisites are completed.
- If a student decides to pursue a four-year degree that is not the B.A.S., technical credits transferred from another institution will be counted only as electives, with the number of hours determined through a course evaluation completed by the academic department head in collaboration with the CMU's Registrar's Office.
- Students who transfer in credits from a recognized technical program must complete the requirements for an A.A.S. degree before their technical training will be recognized for credit in the appropriate B.A.S. program. Applicants from a non-regionally-accredited institution must complete general education requirements from a regionally-accredited institution prior to graduation from Colorado Mesa with a B.A.S. program.
- The requirement for 33 hours of upper division coursework must be met by all students seeking a B.A.S. degree, with the exception of a B.A.S. is awarded in an interdisciplinary program.
- Students are required to participate in exit examinations, assessments, and any other programs deemed necessary to comply with the college accountability requirement.

A list of specific requirements for each B.A.S. degree is available from the appropriate Academic Department Head of the B.A.S. program and the Transfer Resources section of the University's web site.

Bachelor of Arts
Candidates for the B.A. or the B.F.A degree shall complete six sequential semester hours of one classical or modern foreign language with a grade of "C" or higher. At the discretion of the foreign language faculty and with the approval of the Department Head, the requirement may be satisfied by demonstration of equivalent competency. Students with two or more years of high school coursework in a foreign language may (1) see the Department Head for placement in a higher level class; (2) receive credit by successful completion of a CLEP test in that language; or (3) pursue another language.

Bachelor of Science
Candidates with Degree Category requirements for the B.S. degree shall complete at least three semester hours of the following: one additional course chosen from any computer science (CSCI), any statistics (STAT) or another university's mathematics (MATH) course considered higher level than university algebra (MATH 113). The candidate must complete each of these courses with a grade of "C" or higher. At the discretion of the mathematics and computer science faculty, the requirement may be satisfied by a demonstration of equivalent competency.

The above requirements are separate from and in addition to the General Education requirements (i.e., the same course cannot be used for general education, degree category and/or other major requirements).

General Education Overview

Each student must complete the 31 minimum semester hour general education requirement of lower division credit as specified by the Colorado Mesa University faculty. For specific course requirements and choices, refer to the section titled Courses Approved for General Education Baccalaureate Degree Requirements.

The only exceptions are: (1) students who have already earned a baccalaureate degree from a regionally accredited institution and (2) students who have an Associate of Arts (A.A.) or Associate of Science (A.S.) degree from a regionally accredited institution or whose transcript contains the "Common Core" statement indicating completion of the Colorado Core Transfer Consortium general education curriculum. In both of these cases, the student's general education is completed and no further general education course work is required at Colorado Mesa University.

For students seeking to transfer all or part of a General Education Program from another institution, the Colorado Mesa University Registrar's Office will check the program to see if it conforms to the statewide guaranteed transfer program.

Students may select their general education courses from the designated list according to their own preference. The only exception is that any course used to meet major requirements cannot be used to fulfill the general education requirement. The following are guidelines for General Education:

1. For specific mathematics requirement, students should complete the course specified on the program sheet. For all majors, the mathematics requirement can only be met with a grade of "C" or higher.
2. A student may satisfy a General Education requirement with an appropriate AP, CLEP or DANTES test, if the test has been approved by the appropriate academic department at Colorado Mesa University. Credit may be awarded also via preparation as part of the Credit for Prior Learning option. See Non Traditional credit section in this catalog for more information.
3. No General Education course, except sequential courses, can have a specific course as a prerequisite or co-requisite, unless the prerequisite or co-requisite is in a different discipline.

General Education Core Course Requirements

English: 6 semester credit hours

Mathematics: 3 semester credit hours.

History: 3 semester credit hours
Note: 3 additional hours of history may be chosen to fulfill the Humanities requirement below.

Humanities: 3 semester credit hours chosen from history, literature, philosophy.

Social and Behavioral Science: 6 semester credit hours chosen from anthropology, economics, geography, political science, psychology, sociology.

Fine Arts: 3 semester credit hours chosen from art, dance, fine arts, music, theatre.

Natural Sciences: 7 semester credit hours (must include 1 lab) chosen from biology, chemistry, environmental sciences, geology, physics.

Note: At least one of the two courses must have an associated lab or field component, and both the lecture and lab must be taken in all courses listed which have both, if general education credit is to be received. Courses which fit this lecture and laboratory requirement are marked with an asterisk in the Natural Sciences general education list.

Other Lower-Division Course Requirements

Applied Studies: 3 semester credit hours chosen from the list of courses approved on the following page.

Wellness: 3 semester credit hours including KINE 100 Health and Wellness and any two (2) activity courses chosen from KINA 100-191 or DANC 160L, 169L, 174L, 177L and DANCE 180.

Note: Only one varsity sport course numbered KINA 180-191 may be used to meet the activity requirement.

Courses Approved for Colorado Mesa University/ General Education Baccalaureate Degree Requirements

The following courses are approved to meet the general education requirements for a baccalaureate degree from Colorado Mesa University.

All CMU general education core courses below are approved by the Colorado Department of Higher Education for statewide guaranteed transfer, as part of the gtPathways program (see "Colorado Department of Higher Education Statewide Guaranteed Transfer Courses" section on page 49.)

English
Option 1
ENGL 111 English Composition and
ENGL 112 English Composition
or
Option 2
ENGL 112 English Composition and
ENGL 219 Introduction to Professional Writing

(The combination of ENGL 11 and ENGL 219 does not meet the general education English requirement.)

Mathematics
MATH 110 College Mathematics
MATH 113 College Algebra
MATH 119 Precalculus Mathematics
or
MATH 149 Honors Mathematics
MATH 151 Calculus I
MATH 205 Elements of Mathematics II

Students seeking the B.A. or B.F.A. degree must complete MATH 110 or a higher level mathematics course with a grade of "C" or higher to fulfill their mathematics competency under general education; students seeking the B.S., B.S.N., or B.B.A. degree must complete MATH 113 or higher level mathematics course with a grade of "C" or higher to fulfill their mathematics competency under general education; students seeking the B.A.S. degree must refer to their specific program to determine the mathematics competency requirement under general education.

History
HIST 101, 102 Western Civilization
HIST 131, 132 United States History

Humanities
ENGL 131, 132 Western World Literature I, II
ENGL 150 Introduction to Literature
ENGL 222 Mythology
ENGL 231, 232 Non-Western World Literature I, II
ENGL 254, 255 Survey of English Literature I and II
ENGL 261, 262 Survey of American Literature I and II

HIST 101, 102 Western Civilization
HIST 131, 132 United States History

MASS 110 Mass Media Impact and History
PHIL 105 Critical Thinking
PHIL 110 Introduction to Philosophy
**PHIL 120 Ethics
**PHIL 130 Philosophy of Religion

Social and Behavioral Sciences
ANTH 201 Cultural Anthropology
ANTH 222 World Prehistory

ECON 201 Principles of Macroeconomics
ECON 202 Principles of Microeconomics
GEOG 103 World Regional Geography

POLS 101 American Government
POLS 261 Comparative Politics

PSYC 150 General Psychology
PSYC 233 Human Growth and Development

SOCO 144 Marriage and Families
SOCO 260 General Sociology
SOCO 264 Social Problems

Fine Arts
ARTE 101 Two-Dimensional Design
ARTE 102 Three-Dimensional Design
ARTE 115 Art Appreciation
ARTE 118 Survey of Art History, Prehistory to Renaissance
ARTE 119 History of Art, Renaissance to Present

DANC 115 Dance Appreciation

FINE 101 The Living Arts

MUSA 220 Music Appreciation
MUSA 266 History of Popular Music

THEA 141 Theatre Appreciation
THEA 145 Introduction to Dramatic Literature

Natural Sciences
*BIOL 101, 101L General Human Biology and Lab
*BIOL 102, 102L General Organismal Biology and Lab
*BIOL 105, 105L Attributes of Living Systems and Lab

CHEM 100 Chemistry and Society
*CHEM 121, 121L Principles of Chemistry and Lab
*CHEM 122, 122L Principles of Organic Chemistry and Lab
*CHEM 131, 131L General Chemistry and Lab
*CHEM 132, 132L General Chemistry and Lab

ENVS 101 Introduction to Environmental Science
*ENVS 103, 103L Field-Based Introduction to Environmental Science

GEOL 100 Survey of Earth Science
GEOL 103 Weather and Climate
GEOL 104 Oceanography
GEOL 105 Geology of Colorado
GEOL 106 Introduction to Dinosaurs
GEOL 107 Natural Hazards and Environmental Geology
*GEOL 111, 111L Principles of Physical Geology and Lab
*GEOL 112, 112L Principles of Historical Geology and Lab

*GEOL 113, 113L Field-Based Introduction to Physical Geology and Lab

PHYS 100 Concepts of Physics
PHYS 101 Elementary Astronomy
*PHYS 105, 105L Physics by Inquiry and Lab
*PHYS 111, 111L General Physics and Lab
*PHYS 112, 112L General Physics and Lab
*PHYS 131, 131L Fundamental Mechanics and Lab
*PHYS 132, 132L Electromagnetism and Optics and Lab

** Only these courses fulfill the requirement of Natural Science with an associated lab or field component. Both the lecture and laboratory must be taken if general education credit is to be received.*

*** Pending approval for statewide guaranteed transfer.*

Courses Approved for Other Lower-Division Credit Requirements

Applied Studies
ACCT 201 Principles of Financial Accounting

BIOL 154, 154L Technobiology and Laboratory

BUGB 101 Introduction to Business
BUGB 231 Survey of Business Law
BUGB 249 The Business of Life

CISB 101 Business Information Technology

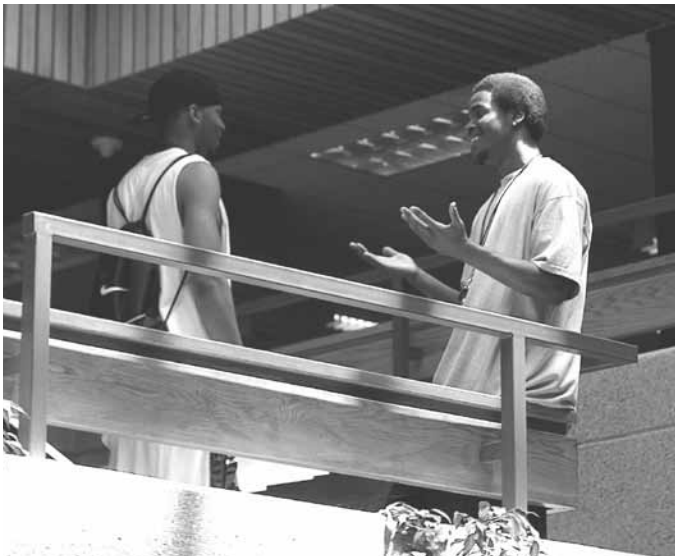
CSCI 100 Computers in Our Society
CSCI 106 Web Page Design I

ENGL 219 Introduction to Professional Writing

FLAF 111, 112 First-Year French I, II
FLAG 111, 112 First-Year German I, II
FLAS 111, 112 First-Year Spanish I, II
FLSL 111, 112 American Sign Language I, II
FLAJ 111, 112 Beginning Japanese I, II

GEOG 131 Introduction to Cartography

HSCI 101 Introduction to the Health Care Professions



KINE 265 First Aid/CPR for the Professional Rescuer

PHIL 275 Introduction to Logic

SPCH 101 Interpersonal Communication
SPCH 102 Speechmaking
SPCH 112 Voice and Diction

TSTG 120 Industrial Safety Practices

Wellness
KINE 100 Health and Wellness

KINA 100-191 Activity Courses

DANC 160L Beginning Ballet Lab
DANC 169L Beginning Modern Dance Lab
DANC 174L Beginning Jazz Dance Lab
DANC 177L Beginning Tap Dance Lab
DANC 180 Beginning Hip Hop Dance

Colorado Department of Higher Education Statewide Guaranteed Transfer Courses

Colorado Mesa University has 75 general education courses approved for guaranteed transfer and accepts nearly 500 courses from other Colorado public institutions of higher education. Guaranteed transfer courses are universally transferable across the institutions and are applicable to general education requirements within all associate and baccalaureate degree programs.

All courses listed under the "Courses Approved for Colorado Mesa University General Education Baccalaureate Degree Requirements" section and STAT 200 have been approved by the Colorado Department of Higher Education (CDHE) as guaranteed transfer courses. For more information regarding this designation, reference may be made to the CDHE website at highered.colorado.gov/academics/transfers/students.html, the Registrar's Office, or your faculty advisor. Courses approved through Colorado's gtPathways program, the state's guaranteed transfer program, are grouped into five content areas, four of which have sub groupings:

Arts and Humanities:
- GT-AH1 - Arts and Expression
- GT-AH2 - Literature and Humanities
- GT-AH3 - Ways of Thinking
- GT-AH4 - Foreign Languages

Communication:
- GT-CO1- Introductory Writing
- GT-CO2 - Intermediate Writing
- GT-CO3 - Advanced Writing

Mathematics - GT-MA1
- [Note: no subgroups]

Natural and Physical Sciences
- GT-SC1 - with laboratory
- GT-SC2 - without laboratory

Social and Behavioral Sciences
- GT-HI1 - History
- GT-SS1 - Economic and Political Systems
- GT-SS2 - Geography
- GT-SS3 - Human Behavior, Culture, or Social Frameworks

The course listing found under "CMU's General Education Baccalaureate Degree Requirements" and in back of this catalog identifies gtPathways courses and the above content area for which it has been approved.

Multiple Concentrations Within One Degree

Under many of the baccalaureate degrees, concentrations are available. Before graduating with a baccalaureate degree, a student may complete requirements for one or several of the concentrations as desired. However, after a degree has been awarded, if courses are taken that would have satisfied requirements for an additional concentration, the additional concentration cannot be added to the degree already awarded. The coursework will be shown on the student's transcript.

Students wishing to receive multiple concentrations within one degree must satisfy all the requirements for each concentration. Only one degree will be awarded. All concentrations must be declared on the petition to graduate.

Second Baccalaureate Degree

A student seeking a second baccalaureate degree at Colorado Mesa University must earn a minimum of 30 additional semester hours of credit, at least 18 of which must be in courses numbered 300 and higher. None of these 30 credits may have been used toward another baccalaureate degree, and all must be earned at Colorado Mesa University. In addition, the student must satisfy all specific program requirements of the new degree and concentration as well as any graduation requirements not previously met (e.g., the degree category). Students with a baccalaureate degree who are pursuing a second baccalaureate degree from Colorado Mesa University are exempt from the Wellness and Applied Studies requirement.

Requirements for a Minor

A minor is an approved program of study to broaden the scope of the educational experience and can be awarded with any baccalaureate degree. A minor, if chosen, must be outside the major field of study. Students are urged to consult a faculty advisor and to obtain a program sheet for the minor sought. A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree. The number of minors a student may earn with any baccalaureate degree at Colorado Mesa University shall not exceed two.

A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites. Since a minor is optional, courses taken to satisfy general education, major requirements, or electives can be counted toward the minor if applicable. At least 33 percent of the minor must be in courses numbered 300 or above and at least 25 percent of the classes must be taken at Colorado Mesa University. A cumulative grade point average of 2.00 or higher for the courses used for the minor must be achieved.

Requirements for Teacher Licensure

Students preparing to teach in the public schools (elementary, secondary, K-12) must contact both the Colorado Mesa University Center for Teacher Education regarding state licensure requirements and the appropriate department head regarding program requirements for the major. It is crucial that students seeking teacher licensure plan their schedules with their advisors early in their academic careers, preferably the first semester of their work at Colorado Mesa University.

Teacher licensure is a separate process and must be pursued in addition to a baccalaureate degree. See the section on Center for Teacher Education.

Requirements for Associate Degree Programs

Associate of Arts (A.A.) Associate of Science (A.S.) Associate of Applied Science (A.A.S.)

Credit Hour Requirements
For most associate degrees, 60 semester credit hours in approved course work must be earned. A cumulative grade point average of 2.00 or higher for all courses taken and for the courses which comprise the area of emphasis must be achieved. Some programs have additional GPA requirements.

Academic Residency for Associate Degrees
To receive an associate degree from Colorado Mesa University, students must complete a minimum of 16 semester hours of credit in no fewer than two semesters of study at Colorado Mesa University.

Associate of Arts (A.A) and Associate of Science (A.S.) Degree Requirements
A.A. and A.S. degree programs are designed to prepare students for upper division collegiate work (junior level) in colleges and universities granting the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree. All A.A. and A.S. degree programs include the Colorado Statewide General Education Core and will thus meet the lower-division general education requirements of most baccalaureate degree programs at public institutions in Colorado. A grade of "C" or higher is required in each core course in order to be accepted for transfer under the Core Transfer Agreements. Course work for the A.A. or A.S. degree includes:

1. Completion of the university's general education core which is aligned with the state's general education curriculum. Specific information about the content areas, required hours, and courses are found under general education overview.
2. Other lower-division requirements, (i.e. applied studies and wellness) listed in the general education overview.

3. Discipline classes (emphasis), as detailed in the Programs of Study section in this catalog or as developed in consultation with a faculty advisor and indicated on the program sheet.
4. Electives

The A.A. degree is designed for transfer into a baccalaureate degree program, with junior standing, in the arts, humanities, social or behavioral sciences, or one of the professional fields with such disciplines as its base. The A.S. degree is designed for transfer into a baccalaureate degree program, with junior standing, in one of the mathematical, biological, or physical sciences, or in one of the professional fields with such disciplines as its base.

Students should consult with their faculty advisors to assure that the emphasis and electives chosen will satisfy requirements of the particular baccalaureate programs to which they plan to transfer. A.A. and A.S. degrees in emphases not described in this catalog may be developed in consultation with the faculty advisor. An A.A. or A.S. degree indicates that the holder has developed proficiencies sufficient to prepare for upper-division collegiate work and is awarded only for completion of a coherent program of study designed for a specific purpose.

Once a student has decided upon a program of study, s/he needs to obtain a program sheet from the faculty advisor. All degree requirements, as agreed upon, will be included on the program sheet.

Associate of Applied Science (A.A.S.) Degree Requirements

A.A.S. degree programs are intended to prepare individuals to enter skilled and/or para-professional occupations or to upgrade/stabilize their employment. With the exception of the Bachelor of Applied Science degree, these programs generally are not intended for transfer to baccalaureate degree programs; however, certain courses may be accepted toward a baccalaureate degree at some institutions. The A.A.S. degrees available at Colorado Mesa University, along with the courses required to complete each degree, are listed in the Programs of Study section in this catalog.

Students are urged to consult with a faculty advisor and to obtain from the advisor a program sheet for the degree sought.

Coursework for the A.A.S. degree includes:

1. General Education Requirements for the A.A.S. Degree include:
   a. 4 semester hours of Mathematics: UTEC 107, MATH 108, MATH 113 or MATH 119. See your advisor for the appropriate course and refer to the specific program sheet for more information. UTEC 107 and MATH 108 will not meet the mathematics general education requirement for students who subsequently pursue a baccalaureate degree.
   b. 6 semester hours English: ENGL 111 and ENGL 112
   c. 6 semester hours Social Sciences/ Humanities/and selected Applied Studies chosen from the following:

      Social Sciences: See the "Social and Behavioral Sciences" general education requirements listed in the Baccalaureate section of the catalog.

      Humanities: See the "Humanities" general education requirements listed in the Baccalaureate section of the catalog.

      Applied Studies: SPCH 101 or SPCH 102. Some program requirements may differ. Consult your advisor or obtain a current program sheet.
2. Wellness Requirement: 2 semester hours
3. The remaining requirements and electives are found under the program sheet for each major.

   Additional requirements apply for some degrees.

Double Emphasis Within an Associate Degree

Students wishing to receive a double emphasis within one degree must satisfy all the requirements for each emphasis. Only one degree will be awarded. All emphases desired must be declared on the petition to graduate.

Second Associate Degree

A minimum of 15 semester hours of credit beyond that required for the first associate degree must be earned by a student seeking a second associate degree at Colorado Mesa University. A minimum of one semester of residency at Colorado Mesa University is also necessary. In addition, the student must satisfy all specific requirements for the new degree. Only one A.A. and only one A.S. degree may be granted to any student.

Requirements for Technical Certificates

Candidates for the Colorado Mesa University Technical Certificate must satisfy all requirements specified for the certificate with a cumulative grade point average of 2.00 or higher for all courses. A grade lower than "C" in the discipline filed will not be counted toward satisfying certificate requirements.

Programs of Study

Acceptance of registration by Colorado Mesa University and admission to any education program at the University does not constitute a contract or warranty that the University will continue to offer the program in which a student is enrolled. The University expressly reserves the right to change, phase out or discontinue any program. The listing of courses contained in any University bulletin, catalog or schedule is by way of announcement only and shall not be regarded as an offer of contract. The University expressly reserves the right to:

1. add or delete programs and/or courses from its offerings,
2. change times or locations of courses or programs,
3. change academic calendars without notice,
4. cancel any course for insufficient registrations, or
5. revise or change rules, charges, fees, schedules, courses, requirements for degrees, and other policies or regulations affecting students, including, but not limited to, evaluation standards, whenever the same is in the best interests of the University.

NOTE: Date in parentheses following faculty member's name indicates the year of a tenure-track appointment to the Colorado Mesa University faculty or a faculty appointment to Western Colorado Community College. Only full time faculty are listed; prior temporary or part-time service is not indicated. Faculty members with a temporary appointment do not have a year listed.

ACCOUNTING

PROGRAMS OFFERED

Bachelor of Science
- Accounting – Public Accounting

Minor
- Accounting

Bachelor of Science + Master of Business Administration (3 + 2)

PROGRAM DESCRIPTION

Accounting is the one degree with 360 degrees of possibilities. Every business needs accounting expertise, whether it's a Wall Street law firm, a professional sports team, a movie production company or a rock band. With the proper accounting education employment options are endless.

The public accounting degree provides students with basic business skills as well as the accounting knowledge needed to pass the Certified Public Accountant (CPA) exam. Graduates of this program have a very high CPA exam pass rate and are heavily recruited by local and regional CPA firms. Most graduates will have job offers months before they graduate.

The accounting minor offers students majoring in other areas the opportunity to enhance their degrees with basic accounting knowledge. Since all businesses rely heavily on accounting functions, graduates with a minor have a competitive advantage, particularly in the area of decision making. Accounting is the language of business and regardless of major, the more accounting you have the better prepared you will be for a management position. This is a vigorous minor that will stand out on a résumé.

The accounting program also offers an option of a five year (3+2) program which allows students to graduate with a Bachelor of Science in Accounting and a Master of Business Administration. This combination prepares students to earn the hours necessary to sit for the CPA exam. Through careful planning and coordination, students can complete their four-year degree and begin their graduate degree, finishing both simultaneously.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

Learn more about the programs of study listed here, and find program sheets detailing exact and complete requirements for majors and concentrations, online at coloradomesa.edu/academics.

SPECIAL REQUIREMENTS
To be admitted to the accounting program at Colorado Mesa University, students must meet certain requirements. See department for specific requirements. Note that admission to the University does not guarantee admission to the program.

1. Prior to admission, potential accounting majors will be given the classification code for "pre-accounting." To be eligible for admission to the program, a student must have successfully completed the following:
   a. 30 credit hours (entering freshmen are not eligible) with a 2.75 GPA or higher;
   b. Freshman English (ENGL 111 and 112)
   c. 9 hours of the General Education requirement excluding the English requirement listed above;
   d. College Algebra (MATH 113) or higher;
   e. Business Information Technology (CISB 101);
   f. Principles of Management (MANG 201);
   g. Financial and Managerial Accounting (ACCT 201 & 202) with a minimum 2.5 GPA.
2. An application for admission should be submitted to the Accounting Program Admission Committee when the above requirements have been met. Specific admission information may be obtained from the department. Only students admitted to the Accounting Program will be allowed to enroll in upper division accounting courses with the exception of Intermediate Accounting I and II and/or Cost Accounting I and II.
3. A grade of "D" in any one of the courses specifically identified above is not acceptable.
4. Exceptions to any of the above requirements may be made by the Admissions Committee in special circumstances.

CONTACT INFORMATION
Department of Business, Academic Classroom Building 309, 970.248.1778.

FACULTY

CRAIG FOSSETT (2004), Assistant Professor of Accounting and Faculty Athletic Representative; B.A., University of Missouri; M.B.A., Western State College.

GEOFFREY GURKA (2001), Professor of Accounting; B.A., University of Connecticut; M.A., Florida State University; Ph.D., Michigan State University.

SUZANNE LAY (2006), Associate Professor of Accounting; B.S., Norfolk State University; M.B.A., University of Missouri-Kansas City; M.S.Ed., Emporia State University.

DAVID ROGERS, C.P.A. (1975), Professor of Accounting; B.A., University of New Mexico; M.B.A., Golden Gate University.

ADMINISTRATIVE OFFICE TECHNOLOGY

PROGRAMS OFFERED

Technical Certificate
- Administrative Office Technology – General Office Administration

Associate of Arts
- Administrative Office Technology Emphasis

Associate of Applied Science
- Administrative Office Technology – Administrative Professional

PROGRAM DESCRIPTION
The technical certificate in administrative office technology specializing in general office administration prepares students to be effective, efficient, entry-level office professionals. Students develop skills in electronic office procedures, word processing, document preparation, grammar, records management, current software programs and bookkeeping. The general office administration curriculum prepares students to be effective support staff in business, government or non-profit organizations. Possible career options include positions as administrative assistants, office managers, bookkeepers or legal office assistants.

The Associate of Arts (AA) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The AA is the appropriate choice for students who will take upper division coursework in the arts, humanities, or social and behavioral sciences. The degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at most public institutions in Colorado.

The Associate of Applied Science in Administrative Office Technology with an administrative professional emphasis prepares students to be effective, efficient office professionals. Students further develop skills acquired in the administrative office technical certificate program along with knowledge of oral presentations, information systems, human relations and communication. The administrative professional curriculum prepares students to be effective support staff in business, government or non-profit organizations.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY

ATHENA BORGIALLI (2007), Technical Instructor of Marketing Education; B.S., University of Wyoming.

ALANE WOOSTER (2001), Assistant Technical Professor of Administrative Office Technology; A.A.S., Colorado Northwestern Community College; B.S., Colorado Christian University; M.B.A., Mesa State College.

ARCHAEOLOGY

PROGRAMS OFFERED

Minor
- Archaeology

PROGRAM DESCRIPTION
The archaeology minor introduces students to the knowledge and skills necessary to carry out archaeological investigations and to treat what is recovered through such investigations appropriately. The minor especially complements such degree programs as history and geology. Students with the background in archaeology and cultural resource management that the minor supplies will be well prepared to enter the burgeoning local market in these areas.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

ART
SEE ALSO GRAPHIC DESIGN

PROGRAMS OFFERED

Bachelor of Fine Arts
- Art History
- Art – K-12 Education
- Studio Art

Minors
- Studio Art

PROGRAM DESCRIPTION

The Bachelor of Fine Arts (BFA) in Art with a concentration in art history combines strong curriculum requirements in both studio and art history courses. Students in this major develop advanced skills in particular studio techniques and engage in in-depth study of historic and contemporary artists, art movements and styles. This degree can lead to professional employment in art museums and galleries, art publishing houses and other areas of art services. The degree also prepares students for advanced, graduate-level art history studies.

The BFA in Art, concentrating in K-12 education, leads to licensure for Colorado K-12 art education. The visual art emphasis includes coursework in theory, art history and studio art. Art teaching methods courses in elementary and secondary art are an integral part of the degree plan. Students accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings. Please see the Teacher Education Admission Packet for further information on admissions criteria.

The BFA in Art with a concentration in studio art combines strong curriculum requirements in design, drawing, studio (either two or three-dimensional) and art history. Students develop skills and aesthetic judgment in the materials, techniques and tools within drawing, painting, printmaking, fibers, ceramics or sculpture studio arts. Art history studies engage students in historic and contemporary artists, art movements and styles. The degree culminates in a senior exhibition in the Johnson Art Gallery, and upon graduation, students are prepared to pursue a career as an artisan or continue with graduate studies in art.

The studio art minor acquaints students with some of the core elements in either two- or three-dimensional art studio. Students develop skills, sensitivity and aesthetic judgment while pursuing individual interests within studio areas such as drawing, painting, printmaking, fibers, ceramics or sculpture. A background in the visual arts can provide a variety of opportunities in the areas of studio artist, art organizations and applied design.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Department of Art, Fine Arts Building 200, 970.248.1833.

FACULTY

JAKE ALLEE (2009), Assistant Professor of Art; B.F.A., University of Iowa; M.F.A., University of North Texas.

STEVEN BRADLEY (2004), Associate Professor of Art; B.A., University of Colorado-Boulder; M.A., Ph.D., Northwestern University.

JOSHUA BUTLER (2006), Assistant Professor of Art; B.F.A., M.F.A., Colorado State University.

SUZIE GARNER (1995), Professor of Art and Department Head of Art; B.F.A., M.A., Stephen F. Austin State University; M.F.A., West Texas A&M.

CAROLYN QUINN-HENSLEY (2000), Professor of Art; B.F.A., M.F.A., University of Hawaii.

DARRELL TOUSLEY (2008), Assistant Professor of Studio Art-Sculpture; B.F.A., Brigham Young University; M.F.A., Arizona State University.

ATHLETIC TRAINING

PROGRAMS OFFERED

Bachelor of Science

Athletic Training

PROGRAM DESCRIPTION

The Athletic Training Education Program (ATEP) is a four semester clinical program, usually completed during the junior and senior years and is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Admission into the ATEP is competitive and admission into Colorado Mesa University does not guarantee admission into the ATEP. The ATEP ensures the highest quality of education by offering collective learning experiences that enable the student to successfully challenge the Board of Certification examination and pursue numerous career paths as a certified athletic trainer. Certified athletic trainers gain employment in a variety of settings including but not limited to: high school/college athletic programs, professional sport programs, outpatient physical therapy/sports medicine clinics, industrial/corporate settings and even the US military.

Transfer students are encouraged to contact the ATEP at least one semester prior to application/transfer to assure that they have time to develop the required skills and knowledge pre-requisites.

Application deadline is April 15th for admission into the clinical program for the following fall semester.

SPECIAL REQUIREMENTS

CPR/AED for the Professional Rescuer and Emergency Response certification is required.

Students seeking degrees in athletic training and teaching should see their faculty advisors in both athletic training and teacher licensure.

The following are required for admission into the ATEP:

1. Have a cumulative GPA of 2.5 or higher
2. Complete the following courses (Grade "C" or higher)
   a. KINE 234 (or equivalent)
   b. KINE 240 (or equivalent knowledge, skills and observations)
   c. BIOL 209, 209L (or equivalent).

CONTACT INFORMATION

Department of Kinesiology, Maverick Center 237, 970.248.1635.

FACULTY

RICHARD BELL, Instructor of Kinesiology; B.S., Clemson University; M.A., The Citadel; J.D., University of South Carolina; Ed.D., United States Sports Academy.

JILL CORDOVA (1992), Professor of Kinesiology and Department Head of Kinesiology; B.A., M.A., Humboldt State University; Ph.D., University of New Mexico.

GUY LEADBETTER (1993), Professor of Kinesiology and Head Coach, Women's Cross Country; B.A., Bowdoin College; M.S., University of Montana; Ph.D., University of New Mexico.

STEVEN ROSS MURRAY (1998), Professor of Kinesiology; B.S., University of North Alabama; M.S., D.A., Middle Tennessee State University.

ROBERT RYAN (2009), Program Director, Athletic Training Education Program and Assistant Professor of Kinesiology; B.A., University of Colorado; M.A., University of Northern Colorado.

AVIATION TECHNOLOGY

PROGRAMS OFFERED

Technical Certificate

Fixed Wing

Helicopter

Learn more about the programs of study listed here, and find program sheets detailing exact and complete requirements for majors and concentrations, online at coloradomesa.edu/academics.

PROGRAM DESCRIPTION
The aviation technology program offers classroom academics, simulator training and in-flight instruction. This program offers two tracks where flight students have the opportunity to obtain their pilot certificates and ratings in both airplanes and/or helicopters. All academic and flight training is certified under the Federal Aviation Administration FAR's Part 141 standards. Graduates of this program are well prepared for a successful and exciting career in the aerospace industry.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

Pending final approval

BIOLOGY

PROGRAMS OFFERED
- Associate of Science
  - Biology Emphasis
- Bachelor of Science
  - Biological Sciences – Biology
  - Biological Sciences – Secondary Education
- Minor
  - Biology

PROGRAM DESCRIPTION
The Bachelor of Science degree with a biological science major provides a broad background in the biological sciences. Students choose biology courses from four areas: cell, developmental and molecular biology; anatomical and physiological biology; organismal biology; and ecology, evolution and systematics. The biology concentration also offers field courses on tropical ecosystems in Ecuador and on marine invertebrate communities in Oregon. The Department of Biology operates the only electron microscope facility in the area. Graduates of our program pursue careers in the medical field, plant pathology, wildlife biology, cell biology or biotechnology, among just a few of the career options available with a biology degree from Colorado Mesa University.

Students wishing to obtain teacher certification complete a concentration in secondary education leading to teacher licensure. Graduates of the program can teach in the state of Colorado or use their teaching expertise in other careers. After completing foundation sciences classes in biology, chemistry, physics and geology, students choose 10 hours of upper level biology course work, in consultation with their advisor.

CONTACT INFORMATION
Department of Biological Sciences, Wubben Science 232, 970.248.1993.

FACULTY

BRUCE BAUERLE (1972), Professor of Biology; B.A., University of Kansas; M.S., University of Missouri; D.A., University of Northern Colorado.

MARGOT BECKTELL (2008), Assistant Professor of Biology; B.S., Mesa State College; Ph.D., Cornell University.

RICHARD DUJAY, Instructor of Biology; B.S., M.S., Ph.D., Colorado State University.

STEPHANIE MATLOCK, Instructor of Biology; B.A., University of Colorado-Boulder; M.S., Montana State University—Bozeman.

GARY MCCALLISTER (1973), Professor of Biology; B.S., M.S., Brigham Young University; D.A., University of Northern Colorado.

DENISE MCKENNEY (1996), Professor of Biology and Department Head of Biological Sciences; B.S., New Mexico State University; Ph.D., North Carolina State University—Raleigh.

KYLE MCQUADE (2006), Assistant Professor of Biology; B.S., Millikin University; Ph.D., University of Wisconsin.

ZEYNEP OZSOY-BEAN, Instructor of Biology; B.S. Bogazici University-Turkey; Ph.D., University of North Carolina--Chapel Hill.

APARNA PALMER (1999), Professor of Biology; B.A., B.S., Colorado State University; Ph.D., Washington State University.

MELISSA SCOTT, Instructor of Biological Sciences; B.S., Midwestern State University; Ph.D., Stanford University.

THOMAS WALLA (2001), Professor of Biology; B.A., University of California—San Diego; Ph.D., University of Oregon--Eugene.

CARRIE MCVEAN WARING (1996), Professor of Biology; B.S., D.V.M., Colorado State University.

STEVEN WERMAN (1990), Professor of Biology and Assistant Vice President for Academic Affairs; B.S., M.S., California State University—Long Beach; Ph.D., University of Miami.

BUSINESS

PROGRAMS OFFERED
- Technical Certificate
  - Entrepreneurship
  - Supervision
- Associate of Arts
  - Business Administration
- Associate of Applied Science
  - Hospitality Management
- Bachelor of Applied Science
  - Business Administration
  - Hospitality Management
- Bachelor of Business Administration
  - Business Economics
  - Entrepreneurship
  - Finance
  - Hospitality Management
  - Human Resource Management
  - Information Systems
  - Insurance
  - Landman/Energy Management
  - Management
  - Managerial Informatics
  - Marketing

Minors
- Business Administration
- Economics
- Entrepreneurship
- Managerial informatics
- Travel and Tourism

Master of Business Administration

PROGRAM DESCRIPTION

Business Adminstration

The Associate of Arts (AA) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The business administration AA degree, in addition to providing students with all of their general education, is useful in giving students an overview of business. The AA is also an appropriate choice for students who will take upper division coursework in the arts, humanities, or social and behavioral sciences. Through the acquisition of general education credits, the degree also positions students for completion of a four-year degree in business. The degree includes the Colorado Statewide General Education Core and meets the lower-division general education requirements at most public institutions in Colorado.

The Bachelor of Applied Science (BAS) in Business Administration combines the technical skills and business proficiency necessary for success. A unique program, the BAS degree allows students who have already earned an Associate of Applied Science (AAS) degree to build upon their technical specialties with general education courses and junior and senior level business courses. This allows associate degree holders to gain a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework. Business courses to be taken include courses in marketing, promotion, management, accounting, finance, small business management and entrepreneurship. Upon completion of the program, students will be technically and academically prepared for leadership positions in their chosen industries. Prospective students not holding an AAS degree can begin their university career at CMU in a chosen field of study with a 2-year degree and then progress to a 4-year degree using the BAS. This degree will provide students with upward mobility in their area of employment as they move into supervision/management positions.

The Bachelor of Business Administration (BBA) degree provides an in-depth study of the many facets of business. The program's extensive business core provides students with the knowledge, skills and abilities to compete in both local and global business environments. The business core covers the functional areas of business and offers an applied approach, providing students with an opportunity to apply concepts and theories learned in class to real life business projects. Students choose from the listed concentrations and gain additional depth in one or more of those areas.

The BBA is a very versatile and valuable degree. In addition to positions in corporate America, graduates hold positions in nonprofit organizations like hospitals, school systems and theaters and positions in organizations from entry-level manger to chief executive officer. Colorado Mesa University's BBA graduates are entrepreneurs, small business owners, bank vice-presidents, product managers in advertising firms and project and operations managers in manufacturing organizations. Many of Colorado Mesa University's BBA graduates have gone on to earn advanced degrees in business such as the Master of Business Administration (MBA) – a desired degree by employers in today's job market.

Minors are designed to prepare non-business students with an overview of business knowledge, allowing students to combine other disciplines with necessary business skills. The four functional areas of business are covered in the minor with additional upper division courses required based upon the chosen minor. The business administration minor complements many other degrees and is designed to prepare students to enter the world of business with the basic business skills needed to contribute more efficiently and effectively in the workplace. Courses in management, marketing and workplace communication provide students an opportunity to build a foundation in business. Additionally, courses in accounting, finance and computer information systems allow students to choose classes that best fit their career goals. A business administration minor coupled with a non-business major can increase the employment opportunities available in a variety of areas.

The MBA is a challenging degree that prepares graduates in the ever-changing business world. A combination of theory and application of current business practices, the classes provide students the opportunity to analyze actual business scenarios. The 24-hour core focuses on the functional areas of business, with six hours focused on research and an applied project and six hours focused on electives. The MBA program is more than ten years old with over 120 graduates scattered around the globe. See Graduate Policies and Programs section of this catalog for complete degree requirements.

BBA SPECIAL REQUIREMENTS

Prior to admission, potential BBA majors will be given the classification code for "pre-BBA". To be eligible for admission to the program, a student must meet certain requirements (see department for requirements).

Once a student has completed 23 semester credit hours and has met the other specific criteria for admittance, s/he may apply to the Business Administration Program Admission Committee. Specific admission information may be obtained from the Department of Business.

BBA CONCENTRATION(S) (Students must choose one)
Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.
To be admitted to the concentrations, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form. Requests for more than six hours of internship credit must be approved by the advisor and Department Head.

CONCENTRATIONS, MINORS and CERTIFICATES

Economics

Minors are designed to prepare non-business students with an overview of business knowledge, allowing students to combine other disciplines with necessary business skills. The four functional areas of business are covered in the minor with additional upper division courses required based upon the chosen minor. The minor in economics is designed to prepare students with an overview of the basics of economics. Coursework includes the principles classes in macroeconomics and microeconomics, plus the intermediate macroeconomics and microeconomics courses. The required courswork prepares students with the critical thinking and problem solving skills needed in today's world, as well as the ability to apply economic rationale in the decision making process.

The business department also offers the Bachelor of Business Administration with a concentration in economics.

Entrepreneurship
Business certificates are designed to provide entry-level knowledge, skills and abilities in the requisite areas. The coursework in each of the certificates can also be used as hours toward a two-year or four-year degree in that specialization. Emphasis in each certificate is on knowledge and skill development. The certificate in entrepreneurship is designed to expose students and prospective entrepreneurs to the beginning knowledge and skills needed to examine and evaluate entrepreneurship opportunities. The certificate will provide students with an overview of business knowledge, which more fully prepares them to operate their own businesses.

The minor in entrepreneurship is designed to equip students with the basic knowledge and skills needed to successfully operate a small business. The entrepreneurship minor is intended for students in disciplines other than business who wish to begin small businesses in their major area. The minor will provide students with the basics needed as they face the exciting challenges of small business ownership.

The business department also offers a certificate in entrepreneurship and the Bachelor of Business Administration with a concentration in entrepreneurship.

Hospitality Management
Upon completion of the Associate of Applied Science (AAS) in Hospitality Management, students will be prepared for an entry-level position in the broad and expanding hospitality industry, as well as prepared to pursue the Bachelor of Applied Science (BAS) in Hospitality Management. The field of hospitality management combines the technical skills and business proficiency necessary for success in this challenging industry. Business courses to be taken include courses in marketing, promotion, management, accounting, finance, small business management and entrepreneurship.

The BAS in Hospitality Management combines the technical skills and business proficiency necessary for success. A unique program, the BAS degree allows students who have already earned an AAS degree to build upon their technical specialties with general education courses and junior and senior level business courses. This allows associate degree holders to gain a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework. Business courses to be taken include courses in marketing, promotion, management, accounting, finance, small business management and entrepreneurship. Upon completion of the program, students will be technically and academically prepared for leadership positions in their chosen industries. Prospective students not holding an AAS can begin their university career at CMU in a chosen field of study with a 2-year degree and then progress to a 4-year degree using the BAS. This degree will provide students with upward mobility in their area of employment as they move into supervision/management positions.

The business department also offers the Bachelor of Business Administration with a concentration in hospitality management.

Managerial Informatics
The minor in managerial informatics is designed to prepare students for managerial level decision making based on the use of information and computer technology. The managerial informatics minor is intended for students who are interested in expanding their knowledge and skills in the use of information and related technology. A managerial informatics minor coupled with any major can increase the employment opportunities available in a wide variety of areas.

The business department also offers the Bachelor of Business Administration with a concentration in managerial informatics.

Supervision
Business certificates are designed to provide entry-level knowledge, skills and abilities in the requisite areas. The coursework in each of the certificates can also be used as hours toward a two-year or four-year degree in that specialization. Emphasis in each certificate is on knowledge and skill development. The certificate in supervision is designed to expose students and business managers to the knowledge and skills needed to supervise employees in the workplace. Basic supervisory skills are addressed allowing students opportunities for successful promotions to managerial positions. The Business Department also offers a certificate in supervision.

Travel and Tourism
The minor in travel and tourism is designed to prepare students to enter the world of hospitality/recreation management. Coursework in the areas of marketing, management and community tourism will provide students the basic skills needed in order to contribute more efficiently and effectively in the travel and tourism industry. For the student interested in the area of travel and tourism, a minor coupled with a bachelor's degree can increase the employment opportunities available in a variety of travel-related areas.

Also see hospitality management.

Learn more about the programs of study listed here, and find program sheets detailing exact and complete requirements for majors and concentrations, online at coloradomesa.edu/academics.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Business, Academic Classroom Building 309, 970.248.1778.

FACULTY

MORGAN BRIDGE (1995), Professor of Business and Department Head of Business; B.B.A., M.A, Chadron State; Ph.D., University of Wyoming.

TIMOTHY HATTEN (1995), Professor of Business; B.A., Western State College; M.S., Central Missouri State; Ph.D., University of Missouri.

GEORGANN JOUFLAS, Instructor of Business; B.A., University of Colorado; M.B.A., George Washington University.

FRANK MARKHAM (2001), Associate Professor of Business; B.S.M., Embry Riddle Aeronautical University; M.B.A., Troy State University; D.B.A., Louisiana Technical University.

ROBERT MAYER (1987), Associate Professor of Business; B.A., M.S., University of Northern Colorado.

JERRY MOORMAN (1990), Professor of Business; M.Ed., Delta State University; B.S., Ed.D., Mississippi State University.

DEBORAH PARMAN, Instructor of Business; B.A., Colorado State University; M.A.M., University of Redlands.

NATHAN PERRY (2010), Assistant Professor of Business; B.A., Westminster College; Ph.D., University of Utah.

PATRICK SCHUTZ (2004), Associate Professor of Business; B.S., Eastern Michigan University; M.S., University of Utah; Ph.D., Colorado State University.

RICHARD VAIL (1997), Professor of Business; B.S., University of California-Davis; M.S., University of Colorado; Ph.D., Oxford.

CHEMISTRY
SEE PHYSICAL SCIENCES

CLASSICAL STUDIES

PROGRAMS OFFERED
- Minor
  - Classical Studies

PROGRAM DESCRIPTION
A classical studies minor is a wise choice for English, history, art and liberal arts majors. It brings students into direct contact with the language, literature, history, political thought, art and philosophical thoughts of ancient Greece and Rome that have so influenced modern day thinking.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Languages, Literature and Mass Communication, Lowell Heiny Hall 445, 970.248.1687.

–or–

Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

FACULTY

LONGINO LUIS LOPEZ, Instructor of English; B.A., Spring Hill College; M.A., St. John's College; Ph.D., The University of New Mexico, Albuquerque.

DOUGLAS O'ROARK (1994), Professor of History; B.A., M.A., Ph.D., The Ohio State University.

COMPUTER INFORMATION SYSTEMS

PROGRAMS OFFERED
- Technical Certificate
  - Decision Support
- Associate of Arts
  - Business Computer Information Systems Emphasis
- Bachelor of Science
  - Computer Information Systems
- Bachelor of Applied Science
  - Computer Information Systems
- Minor
  - Computer Information Systems
  - Managerial Informatics

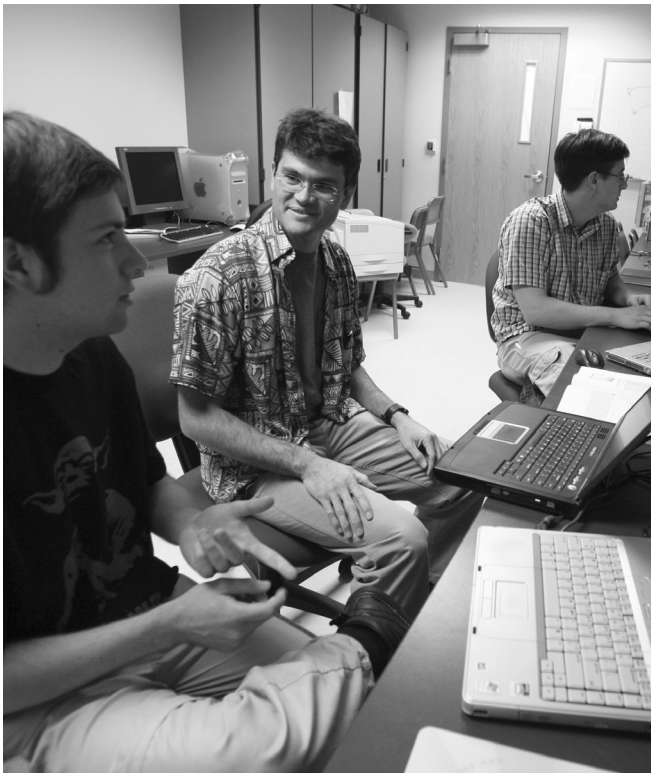
PROGRAM DESCRIPTION
The certificate in decision support systems is designed to expose students and business managers to the knowledge and skills needed to use computer software to solve business problems, particularly in the support of business decision making. This certificate addresses the need of today's managers to more fully manage the information systems functions of an organization. The certificate will provide students with an overview of information they would encounter if they went on to earn the minor in managerial informatics or the BBA concentration in information systems or the BS in computer information systems, each of which more fully prepares people to work in or manage the information systems functions of organizations.

The Associate of Arts (AA) degree provides students an overview of computer information systems and business. By earning general education credits, the degree also positions students for completion of a four-year degree in business. The degree program includes the Colorado Statewide General Education Core and meets the lower-division general education requirements at most public institutions in Colorado. This degree also provides a working knowledge of computer hardware and software. The AA degree with an emphasis in business computer information systems, in addition to providing students with all of their general education, is useful in giving students a working knowledge of computer hardware and software. Common productivity tools such as presentation software, spreadsheets and database management software used in businesses are presented. If a student stops with only an associate's degree, the computer information systems AA provides skills that can be used in the workplace immediately.

The Bachelor of Science (BS) in Computer Information Systems is a degree required as organizations face the challenges of technology management. The program provides graduates with business management skills and computer information expertise to manage computer systems in today's organizations. As businesses

increasingly rely on technology to provide a competitive advantage, employees with an understanding of both business concepts and computer systems are a necessity. Graduates of this program are employed in occupations such as systems analysts, analyst/programmers, database administrators, network administrators, web page designers, help desk specialists and information technology managers. Graduates assist businesses with creating, obtaining and maintaining computer information systems that solve problems and assist in facilitating routine business events. Computer information systems studies require students to examine computer systems from organizational, social, psychological and technical perspectives. Graduates from this program will have taken a variety of courses that were developed based on national guidelines for quality degrees in information systems.

The Bachelor of Applied Science (BAS) in Computer Information Systems combines the technical skills and business proficiency needed today. A unique program, the BAS allows students who have already earned an AAS to build upon their technical specialties with general education courses and junior/senior level computer information coursework. This allows associate degree holders to gain a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework. Computer information systems courses to be taken include coursework in project management, systems analysis and design, database administration, networking, electronic commerce, productivity tools and decision support, as well as systems development and implementation, including programming and information systems theory. BAS students will be technically and academically prepared for management positions within information technology. Prospective students not holding an associate of applied science degree can begin their university career at CMU in a chosen field of study with a 2-year degree and then progress to a 4-year degree using the BAS.



The computer information systems minor allows students majoring in other areas to enhance their degrees with information systems knowledge. Such graduates may use their expertise to help solve computer system problems for businesses. Since many businesses rely heavily on computer systems as decision-making tools, graduates with this minor will have a competitive advantage. Additionally, many employees in numerous organizations find themselves daily using computer hardware and software as productivity tools within their positions. The computer information systems minor assists students in learning skills and background information that they will need in all occupations.

The minor in managerial informatics is designed to prepare students for managerial level decision-making based on the use of information and computer technology. Today's world presents a wealth of information, although using information effectively requires insight and talent with a variety of tools. The managerial informatics minor is intended for students who are interested in expanding their knowledge and skills in the use of information and related technology. A managerial informatics minor coupled with any major can increase the employment opportunities available in a wide variety of areas.

The business department also offers the Bachelor of Business Administration with a concentration in information systems.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Department of Business, Academic Classroom Building 309, 970.248.1778.

FACULTY

DONALD CARPENTER (2003), Professor of Computer Information Systems; B.S., Kearney State College; M.B.A., University of Colorado-Colorado Springs; Ph.D., University of Nebraska-Lincoln.

GAYLA JO SLAUSON (1993), Associate Professor of Computer Information Systems; B.A., Mesa State College; M.B.A., University of Southern Colorado.

JOHNNY SNYDER (2005), Professor of Computer Information Systems; B.A., Fort Lewis College, M.A., Ph.D., University of New Mexico; M.S., Nova Southeastern University.

COMPUTER SCIENCE

PROGRAMS OFFERED

- Associate of Science
  - Computer Science Emphasis
- Bachelor of Science
  - Computer Science
- Minor
  - Computer Science

PROGRAM DESCRIPTION

The Associate of Science with an emphasis in computer science includes courses in web page design, various programming languages, data structures and computer architecture. While the associate's degree prepares students to complete a Bachelor of

Science in Computer Science (which is strongly recommended), employment opportunities are open to the successful graduate, including positions such as web developers, computer operators and technical support specialists.

Computer science is the study of algorithms and the issues involved in implementing them. The bachelor's degree in computer science includes core courses in algorithms, data structures, logic, programming languages, software design and advanced mathematics. Electives in web page design, artificial intelligence, robotics, computer graphics, video game design, databases, security, multimedia and networks are also possible. The program and course offerings are constantly evolving to keep up with the latest changes in the computer science field. The small class sizes at Colorado Mesa University allow for close interaction between faculty and students, with independent research projects and internships available.

A wide variety of professional and academic opportunities exist for graduates in the computer science field, including software engineering, software testing, computational finance, game design, computer graphics, robotics, artificial intelligence, internet systems and technology, security, hardware development, animation, medicine, biotechnology, business management and consulting and modeling, as well as master's and doctoral studies in computing-related fields. Graduates have continued on to advanced degrees in top tier schools and are employed at IBM, Microsoft, Sun, Lockheed-Martin and many other technical companies.

A minor in computer science is an excellent enhancement to degrees in the many fields which make extensive use of computer software, such as engineering, physics and mathematics, but also for non-science fields such as graphic arts, education or sociology. The degree prepares students to understand computer science foundations in software development and in hardware, as well as common application software development such as database software, graphical user interfaces and video game design.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Computer Science, Mathematics and Statistics, Wubben Science 132, 970.248.1407.

FACULTY

ARUN EKTARE (1986), Professor of Computer Science; Ph.D., University of Roorkee (India).

WARREN MACEVOY (2001), Professor of Computer Science; B.S., Colorado Mesa University; M.S., Ph.D., University of Arizona.

LORI PAYNE (1996), Professor of Mathematics and Computer Science and Department Head of Computer Science, Mathematics and Statistics; B.A., Mesa College; M.S., New Mexico Institute of Mining & Technology; Ph.D., University of Northern Colorado.

GARY RADER (1995), Professor of Computer Science; B.A., M.A., Ph.D., University of Pennsylvania; M.B.A., University of Phoenix.

ANNE SPALDING (2001), Associate Professor of Computer Science; B.S., M.S., Ph.D., University of Colorado-Denver.

CONSTRUCTION MANAGEMENT

PROGRAMS OFFERED
Bachelor of Science
Construction Management

PROGRAM DESCRIPTION
Construction managers plan, direct and coordinate a wide variety of construction projects, including the building of all types of residential, commercial and industrial structures, roads and bridges. Construction managers coordinate and supervise the construction process from the conceptual development stage through final construction, insuring the project is completed on time and within budget. They are salaried or self-employed managers who oversee construction supervisors and workers. They are also responsible for the safety of the work environment. Potential majors must be comfortable with mathematics, technical instruction, physical science, computers and software programs. They should work well under pressure and have good oral and written communication skills. This degree is intended to provide students with the needed knowledge, skills and abilities to be successful in this fast-paced challenging environment. Graduates of the construction management program will possess an OSHA 10-hour safety card upon graduation.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Archuleta Engineering Center, Room 126, 2510 Foresight Circle, Grand Junction, CO, 81505, 970.248.1551
-or-
Department of Business, Academic Classroom Building 309, 970.248.1778.

FACULTY

CHARLES GAINS, Assistant Professor of Construction Management and Program Coordinator; A.S., Waubonsee Community College; B.S., Southern Illinois University; M.B.A., Boise State University.

CONSTRUCTION TECHNOLOGY

PROGRAMS OFFERED

Technical Certificate
- Construction Technology

Associate of Applied Science
- Construction Technology – Craft
- Construction Technology – Supervision

PROGRAM DESCRIPTION

The certificate program in construction technology prepares students for a wide range of opportunities in the construction field by introducing practical theory and related field training in construction technology and building construction. Emphasis in the fundamentals of construction safety, framing, floor systems, roofing, building regulations, print reading, as well as concrete and cabinet making and installation will be covered. Students with this certificate will be prepared for entry-level positions with construction companies.

The Associate of Applied Science (AAS) in Construction Technology with an emphasis on craft focuses on the fundamentals of construction safety, framing, floor systems, roofing, building regulations, print reading, concrete and cabinet making and installation. Career options include carpenter, concrete former, roofer or cabinet maker. This emphasis can also be a pathway into supervision or management.

The AAS in Construction Technology with an emphasis on supervision is designed to prepare students for a wide range of opportunities in the construction field that require management skills. The curriculum incorporates courses in building materials and testing, estimating, planning and scheduling, project management and other supervisory and general education courses that develop management skills. Career options include obtaining a position as a purchasing manager, salesperson, crew supervisor, or project manager in the field of construction**.**

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY

RICHARD LEONARD (2007), Technical Instructor of Construction Technology.

CRIMINAL JUSTICE

PROGRAMS OFFERED

Associate of Applied Science
- Criminal Justice (WCCC)
- Criminal Justice (Delta/Montrose Technical Center)

Bachelor of Arts
- Criminal Justice
- Criminal Justice - Law Enforcement

Minor
- Criminal Justice

PROGRAM DESCRIPTION

The Associate of Applied Science (AAS) in Criminal Justice is designed for students who have completed or wish to complete the police academy program at Western Colorado Community College and incorporates instruction gained from the Peace Officer Standards and Training (POST) program. Students in the AAS program must complete the general education requirements and choose additional courses in law enforcement related studies either before or after completing the academy. Completion of the AAS in Criminal Justice may provide graduates with additional promotional opportunities in law enforcement areas (such as police and sheriff departments, state enforcement, parole officer, liquor enforcement and wildlife enforcement). Law enforcement agencies in some areas require an AAS degree for entry-level positions.

The Bachelor of Arts in Criminal Justice is designed to provide students interested in careers in the justice system with the knowledge, communication and critical thinking skills necessary for success in their field. The degree will also assist students in their upward mobility in their area of employment. Graduates secure positions in law enforcement, probation, parole and corrections. Many also use this degree as the starting point in their pursuit of a law degree.

The Bachelor of Arts in Criminal Justice with a concentration in law enforcement combines the POST requirements of the AAS degree with the academic rigor of the baccalaureate degree. Graduates will be able to secure positions in various law areas(e.g. police officer, deputy sheriff, parole officer, etc.).

The criminal justice minor is designed to provide students interested in careers in the justice system with the knowledge, communication and critical thinking skills necessary for success in their field. Graduates secure positions in law enforcement, probation, parole and corrections. Many also use this degree as the starting point in their pursuit for a law degree.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS

The Associate of Applied Science (AAS) degree is based on completing the Peace Officer Standards and Training (POST) program at WCCC. (See the POST entry elsewhere in this section). Students who have completed the POST program must complete the general education requirements and three social and behavioral science classes to earn an AAS. An articulation agreement with Delta Montrose Technical College provides the same opportunity for students who have completed the POST program at that campus.

Contact the Delta Montrose Technical College at 970.874.7671 for fees and charges for Criminal Justice (CRJ) courses.

CONTACT INFORMATION

Associate Degree: Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

Baccalaureate Degree: Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

FACULTY

MICHAEL DELANEY (2008), Assistant Professor of Criminal Justice; B.A., Transylvania University, J.D., Salmon P. Chase College of Law.

KATIE DREILING (2011), Assistant Professor of Criminal Justice; B.A., M.S., St. Cloud State University; Ph.D., South Dakota State University.

JOHN REECE (2006), Assistant Professor of Criminal Justice; B.A., Mesa State College; M.P.A., University of Colorado-Denver; Ph.D., Northcentral University.

CULINARY ARTS

PROGRAMS OFFERED

Technical Certificate
- Culinary Arts

Associate of Applied Science
- Culinary Arts

PROGRAM DESCRIPTION

Students in the Colorado Culinary Academy learn cooking and baking from scratch, dining room management, menu planning, food service supervision, cost controls, purchasing, marketing and computer applications for food service. The curriculum meets requirements of the American Culinary Federation and includes National Restaurant Association Professional Management Development courses. Career options include chef de cuisine, certified culinarian, executive or pastry chef, dietitian, food, beverage or banquet manager and restaurant owner/manager.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY

DAN KIRBY (1999), Assistant Technical Professor and Program Coordinator of Culinary Arts; A.A.S., Mesa State College.

WAYNE SMITH (1998), Assistant Technical Professor of Culinary Arts; A.A.S., Mesa State College.

JONATHAN ST. PETER (2004), Technical Instructor of Culinary Arts; A.A.S., Colorado Mountain College.

EDUCATION: EARLY CHILDHOOD

PROGRAMS OFFERED

Technical Certificate
- Early Childhood Education Director
- Early Childhood Education Teacher

Associate of Arts
- Early Childhood Education Emphasis

PROGRAM DESCRIPTION

The early childhood certificate program prepares students for careers in licensed early childhood care and education programs and enables students to meet the educational qualifications of the Colorado Department of Human Services. Students who wish to work in licensed early childhood classrooms may complete the director or

teacher sequence and then continue on to earn an Associate of Arts in Early Childhood Education. Career options include opportunities in childcare centers and preschools.

The Associate of Arts (AA) with an early childhood education emphasis provides students with a foundation for working with children from birth to age eight in a variety of settings. Our faculty offer one-on-one guidance for course selection, field placements, student teaching and employment. With an increasing focus on quality early education, many organizations are requiring their employees to demonstrate a level of expertise provided by this AA degree. Our students complete their degree with a culminating student teaching experience giving them an opportunity to teach in a real preschool classroom for a semester. Graduates of the early childhood program go on to be employed in large and small child care centers, open up their own home care centers, work in other school settings, or use coursework as a foundation to continue into elementary education. In addition, our program aligns with state requirements for early childhood teacher certification and large center director qualification.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS

Study directed toward the Associate of Arts degree may serve as a basis for the Bachelor of Arts degree with elementary education licensure. Programs of study are sequential and advanced planning is necessary for an efficient transition from an associate program to a baccalaureate program. Faculty advisors assist students in planning programs to meet requirements. Students seeking childcare center director qualification should meet with an advisor in order to meet specific certification requirements.

CONTACT INFORMATION

Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

EDUCATION: TEACHER LICENSURE

PROGRAM DESCRIPTION

The Center for Teacher Education offers licensure programs in elementary, secondary and K-12 education. Licensure to teach in public schools in the state of Colorado requires each teacher candidate to complete a baccalaureate degree in a content area and a sequence of professional education courses that include extensive field experience and classroom placements. Teacher licensure coursework and experiences are taken through the Center for Teacher Education, while the content degree coursework is completed meeting the requirements of the discipline area. Both departments coordinate to assist teacher candidates to complete the program. Formal admission to the Center for Teacher Education is required of all students planning to obtain a Colorado Educator License in any teaching field. Admission to Colorado Mesa University does not guarantee admission to the Teacher Education program, which requires a separate application process. Contact the Center for Teacher Education for information; also see the section in this catalog on the Center for Teacher Education.

In order to complete all licensure requirements in a timely manner, it is important that students contact the center as soon as possible after enrolling at Colorado Mesa University. Interested students enroll in EDUC 211 Foundations of Education before applying for formal admission to the Center for Teacher Education.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Center for Teacher Education, Academic Classroom Building, Suite 109, 970.248.1786.

PROGRAM DIRECTOR

VALERIE DOBBS (2008), Director, Center for Teacher Education; B.A., The Ohio State University; M.A., Virginia Tech University.

Learn more about the programs of study listed here, and find program sheets detailing exact and complete requirements for majors and concentrations, online at coloradomesa.edu/academics.

FACULTY

MADELINE BECKER (2005), Assistant Professor of Teacher Education; B.A., Webster University; M.A., Ed.D., Northern Arizona University.

BLAKE BICKHAM (2007), Assistant Professor of Teacher Education; B.A., M.A., Texas A & M University; Ed.D., University of Houston.

CYNTHIA CHOVICH (2007), Assistant Professor of Teacher Education; B.A., California State University,-San Marcos; M.A., Grand Canyon University; Ed.D., Walden University.

LISA FRIEL (1998), Professor of Teacher Education; B.A., University of California-Santa Barbara; M.Ed., Ed.D., Northern Arizona University.

JEAN GAULEY, Instructor of Teacher Education; B.S.Ed., University of Vermont; M.A., Ph.D., University of Denver.

SANDRA MURRAY, Instructor of Teacher Education; B.A., M.A., Adams State College.

ELECTRIC LINEWORKER

PROGRAMS OFFERED

Technical Certificate

Electric Lineworker

PROGRAM DESCRIPTION

This program covers all areas of training required to work with electric lines, including: basic skills and studies of electricity, math, fundamentals of line work, transformer connections and underground installation. In addition to training at the field location, all students are encouraged to obtain Red Cross First Aid and CPR cards as a requirement for employment. With this certificate, students will be prepared for entry-level positions as electric line mechanics, electric lineworkers or power lineworkers.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS

Climbing and working on poles and towers is required. Students receive field training and practical theory in all phases of powerline installation and maintenance. An outdoor laboratory covers climbing, setting and removing various sizes of poles, guy work, conductors, transformers, street lights, installation of services and the use and care of safety equipment. Prospective students are encouraged to contact the College about physical requirements. This program begins only in the fall semester of each year.

CONTACT INFORMATION

Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY

PAUL BEHL (2011), Technical Instructor of Electric Lineworker.

PATRICK ROARK (2005), Technical Instructor of Electric Lineworker.

EMERGENCY MEDICAL SERVICES

PROGRAMS OFFERED

Technical Certificate

Emergency Medical Technician – Basic

Paramedic

Associate of Applied Science

Paramedic

PROGRAM DESCRIPTION

The primary focus of the emergency medical technician (EMT) is to provide basic emergency medical care and transportation for critical and emergent patients who access the emergency medical system. An EMT possesses the basic knowledge and skills necessary to provide patient care and transportation and functions as part of a comprehensive emergency medical system response, under medical oversight. An EMT performs interventions with the basic equipment typically found on an ambulance and is a link from the scene to the emergency health care system.

Coursework emphasizes emergency skills, such as patient assessment, as well as managing respiratory, trauma and cardiac emergencies. Formal courses are combined with skills practice and time in an emergency room and ambulance for a total of 200 contact hours. The program includes instruction and practice in dealing with behavioral problems, bleeding, fractures, burns, airway obstruction, cardiac arrest, environmental conditions and emergency childbirth. Students learn how to use and maintain common emergency equipment, such as backboards, suction devices, splints, oxygen delivery systems and a variety of stretchers. The program prepares the graduate to take the NREMT examination and become certified as an EMT.

The paramedic certificate program offers advanced coursework in emergency care but does not include the general education required of the Associate of Applied Science (AAS) paramedic degree.

The two-year AAS paramedic degree represents the most advanced level of education for emergency medical services. At this level, the caregiver receives education in advanced procedures, medications and equipment used to manage medical emergencies and traumatic injuries in patients of all ages. Paramedics provide more extensive and complex pre-hospital care than EMTs. Their goal is to prevent and reduce mortality and morbidity due to illness and injury. Paramedics primarily provide care to emergency patients in an out-of-hospital setting. The program prepares the graduate to take the NREMT examination and become certified as a paramedic. Extensive related coursework and clinical and field experience is required. Paramedics are employed by fire, police and rescue agencies, hospitals, private ambulance companies and in a variety of businesses and industries with a high potential for accidental injury or illness.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS

EMT certification is required prior to admission to the paramedic program. Admission to Colorado Mesa University does not guarantee admission into the emergency medical services (EMS) programs, which require a separate application. Students admitted to any EMS program must undergo a background check and maintain current CPR certification and professional liability insurance. An admission committee selects students from applicants who best

meet requirements. All admission materials must be on file in the Department of Health Sciences office prior to deadlines established for each program. Please contact the Health Sciences Department for additional information.

Students transferring in credit for human anatomy and physiology taken at out-of-state accredited colleges/universities must provide evidence that these courses had separate laboratory components before the course can be accepted to fulfill program requirements. This will not necessarily appear on the transcript.

Students must earn a "C" or higher for all courses required for completion of the EMS programs. This policy applies regardless of when the course was taken.

CONTACT INFORMATION
Department of Health Sciences, Maverick Center 173, 970.248.1398.

FACULTY
DANIEL BARELA, Instructor and Director of Emergency Medical Services; A.A., Colorado Mountain College.

FIDEL GARCIA, Instructor of Emergency Medical Services.

ENERGY MANAGEMENT/ LANDMAN

PROGRAMS OFFERED
Technical Certificate
- Energy Management/Landman

PROGRAM DESCRIPTION
The certificate in energy management/landman is designed to provide students with the knowledge and skills needed to engage in landman activities in the workplace. The certificate will provide students with a foundation for further study in the energy management/landman concentration in the BBA, which more fully prepares a person for a successful career in the growing energy industry.

The Business Department also offers the Bachelor of Business Administration with a concentration in energy management/ landman.

CONTACT INFORMATION
Department of Business, Academic Classroom Building 309, 970.248.1778.

FACULTY
JAMES COLOSKY, Program Coordinator and Instructor of Energy Management/Landman; B.A., Michigan State University; J.D., University of Denver School of Law.

ENGINEERING
SEE MECHANICAL ENGINEERING

ENGLISH

PROGRAMS OFFERED
Bachelor of Arts
- English – Literature
- English – Writing
- English – Secondary Education

Minors
- English – Literature
- English – Writing

PROGRAM DESCRIPTION
The English department at Colorado Mesa University offers programs leading to a Bachelor of Arts in literature, creative writing and secondary education. The skills a student develops as an English major, such as writing, editing, problem solving, critical thinking and analysis, are highly prized by employers in nearly every profession. This means that English graduates use their education in a wide variety of fields and that their future careers relate to their personal career interests, work values and transferable skills.

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. The secondary licensure program provides teacher education candidates with broad content knowledge in English and prepares them as teachers for grades 7 through 12. Please see the Teacher Education Admission Packet for further information on admissions criteria.

The English minor should be of interest to students who want to broaden their backgrounds in the liberal arts as well as to those planning careers in which experience in literature and writing is useful, such as law, journalism, advertising, theatre, business, public service, or graduate study in other academic subjects.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Languages, Literature and Mass Communication, Lowell Heiny Hall 445, 970.248.1687.

FACULTY
JULIE BARAK (1997), Professor of English; B.A., M.A., Creighton University; Ph.D., University of Nebraska.

WILLIAM BROWN, Instructor of English; B.A., Queens College, City University of New York; Ph.D., Graduate Center, City University of New York.

JULIE BRUCH (2002), Professor of English; B.A., Western Michigan University; M.A., Ph.D., University of Kansas, Lawrence.

ROBIN CALLAND (2009), Assistant Professor of English; B.A., University of Colorado, Denver; M.A., Ph.D., University of Colorado Boulder.

CAROL CHRIST, Instructor of English; B.A., Mesa State College; M.F.A., Colorado State University.

RHONDA CLARIDGE, Instructor of English; B.A., New York University; M.A., University of Colorado.

BRYAN DOUGLAS COX, Instructor of English; B.A., California Polytechnical University-San Luis Obispo; M.F.A., Indiana University; Ph.D., Florida State University.

SUSAN FINCH, Instructor of English; B.A., Emory University; M.F.A., Indiana University; Ph.D., Florida State University.

BARBARA GEIGER, Instructor of English; B.A., M.A., Ph.D., Texas Tech University.

T J GERLACH (2005), Assistant Professor of English; M.F.A., University of Utah; Ph.D., University of Denver.

KURTIS HAAS (1999), Professor of English; B.A., M.A., Truman State University; Ph.D., University of Nebraska.

KRISTEN HAGUE (2001), Associate Professor of English and Director of Honors Program; B.A., Providence College; M.A., Ph.D., University of New Mexico.

JENNIFER HANCOCK (2010), Assistant Professor of English; B.A., Oklahoma State University; M.F. A., Sarah Lawrence College; Ph.D.; Oklahoma State University.

MICHELE HANSON, Instructor of English and French; B.A., University of California, Santa Barbara; M.A., University of New Hampshire; M.L.S., University of Arizona.

BARRY LAGA (1997), Professor of English and Department Head of Languages, Literature and Mass Communication; B.A., M.A., Brigham Young University; Ph.D., Purdue University.

ANN LEADBETTER, Instructor of English; B.A., University of Utah; M.A., University of New Mexico.

LONGINO LUIS LOPEZ, Instructor of English; B.A., Spring Hill College; M.A., St. John's College; Ph.D., The University of New Mexico, Albuquerque.

GABRIELE MAYER-HUNKE, Instructor of English and German; B.S., M.S., B.A., M.A., University of Wuerzburg (Germany).

MAUREEN NEAL (1995), Professor of English; B.A., University of Denver; M.A., Western State College; Ph.D., Texas A&M University.

JOHN NIZALOWSKI, Instructor of English; B.A., Binghamton University; M.A., University of Delaware.

RANDY PHILLIS (1993), Professor of English; B.A., M.F.A., Wichita State University; Ph.D., Oklahoma State University.

WILLIAM WRIGHT (1998), Professor of English; B.A., Linfield College; M.A., University of New Hampshire; Ph.D., University of Arizona.

ENVIRONMENTAL SCIENCE AND TECHNOLOGY

PROGRAMS OFFERED

Bachelor of Science

Environmental Science and Technology – Environmental Science
- Pollution Maintaining and Control (option)
- Ecosystem Restoration (option)

Minor

Environmental Science and Technology

PROGRAM DESCRIPTION

The goal of the environmental science and technology program is to educate students in the science, protection and restoration of our natural resources—air, water, land and ecosystems. Students develop a solid foundation in biology, chemistry, mathematics, statistics and communication skills, then apply this knowledge to the study and solution of environmental problems. Theory is balanced with hands-on practice and includes considerable work outdoors in the local environment. Individual and group projects are a key component of courses and students participate in work performed through partnerships with agencies such as the Colorado National Monument and the Colorado Division of Reclamation, Mining and Safety. Students must choose either the pollution monitoring and control option, which focuses on pollution prevention as well as investigation and cleanup, or the ecosystem restoration option, which focuses on strategies for managing natural resources.

The environmental science and technology minor is an invaluable asset to students who are majoring in biology, chemistry or geology and planning to work in an environmental profession.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Department of Physical and Environmental Sciences, Wubben Science 232, 970.248.1993.

FACULTY

DEBORAH KENNARD (2005), Associate Professor of Environmental Science and Technology; B.A., Trinity University; M.A., Ph.D., University of Florida.

TAMERA MINNICK (2002), Associate Professor of Environmental Science and Technology; B.S., University of Nebraska; Ph.D., Colorado State University.

RUSSELL WALKER (1993), Professor of Environmental Science and Technology and Department Head of Physical and Environmental Sciences; A.B., Oberlin College; Ph.D., Iowa State University.

EXERCISE SCIENCE

PROGRAMS OFFERED
Bachelor of Science
Exercise Science

PROGRAM DESCRIPTION
Students enrolled in this major should have a strong interest in the sciences as this program applies science to human function. The student will begin studies with science courses such as physics, general chemistry and human anatomy and physiology. Continued studies will include courses such as: exercise physiology, anatomical kinesiology, biomechanics, physical activity and aging, medical conditions and pharmacology and sports nutrition, among other subject areas. This major is designed to prepare students for graduate programs such as: physical therapy, physician's assistant, occupational therapy and exercise physiology. Colorado Mesa University students frequently continue their study for graduate or professional degrees at universities widely recognized as top programs in exercise physiology, physical therapy, occupational therapy, physical education and public health.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Kinesiology, Maverick Center 237, 970.248.1635.

FACULTY

JILL CORDOVA (1992), Professor of Kinesiology and Department Head of Kinesiology; B.A., M.A., Humboldt State University; Ph.D., University of New Mexico.

KEITH FRITZ (1997), Associate Professor of Kinesiology; B.S., Oregon State University; M.S., Ph.D., University of New Mexico.

GUY LEADBETTER (1993), Professor of Kinesiology and Head Coach, Women's Cross Country; B.A., Bowdoin College; M.S., University of Montana; Ph.D., University of New Mexico.

STEVEN ROSS MURRAY (1998), Professor of Kinesiology; B.S., University of North Alabama; M.S., D.A., Middle Tennessee State University.

ROBERT RYAN, Program Director, Athletic Training Education Program and Assistant Professor of Kinesiology; B.A., University of Colorado; M.A., University of Northern Colorado.

FORENSICS

PROGRAMS OFFERED
Minor
Forensics

PROGRAM DESCRIPTION
Forensic science is a growing professional field throughout the United States. Forensic science is the interface between analytical science and the law. Students with a minor in forensic science can seek employment with CBI and other employers conducting forensic investigations, or they may continue their education by seeking a master's degree in forensic science at another institution. The minor is best suited for students majoring in biology or chemistry. The minor will enhance students' skills in the molecular biology, analytical chemistry and criminalistic techniques used in forensic investigations.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Biological Sciences, Wubben Science 232, 970.248.1993.

GEOGRAPHIC INFORMATION SCIENCE & TECHNOLOGY

PROGRAMS OFFERED
Technical Certificate
Geographic Information Science and Technology
Minor
Geographic Information Science and Technology

PROGRAM DESCRIPTION
Colorado Mesa University offers a certificate and a minor in geographic information science and technology. The courses are open to all students interested in broadening their knowledge and enhancing job-related skills in a rapidly expanding market of computer-based technology. The multidisciplinary nature of geographic information science and technology allows students from a wide variety of fields to participate in this exciting program.

There is a strong demand for people who are trained in geographic information science and technology and this certificate assists students in securing jobs in this rapidly growing field. GIS/GPS can be used for cartography, business, biology, geology, environmental science, history, archeology and criminal justice.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Physical and Environmental Sciences, Wubben Science 232, 970.248.1993.

GEOLOGY
SEE PHYSICAL SCIENCES

GRAPHIC DESIGN
SEE ALSO ART

PROGRAMS OFFERED
Bachelor of Fine Arts
Graphic Design – Animation
Graphic Design – Print
Minors
Graphic Design

PROGRAM DESCRIPTION
The animation concentration in graphic design focuses on animation as an art form by means of creating images that come alive in two- and three-dimensional applications. The curriculum encompasses both traditional and digital animation skills, as well as storytelling,

storyboarding, character design, illustration and web design. Graduates are prepared to seek entry-level employment as animator, storyboard artist, character designer, modeler, digital animator, computer artist, layout artist and web designer.

The graphic design print concentration focuses on established industry standards in print design, web design and applied illustration. The graphic design Maclab is furnished with Macintosh computers and the latest graphic design application software. Majors are strongly advised to purchase a Macintosh computer and corresponding software in order to become more individually proficient and productive. All graphic design courses have prerequisites. Entering students are encouraged to pay close attention to course sequencing and consult their advisor in order to complete the degree in four years. In addition, graphic design majors are required to complete an off-campus graphic design internship as a means of gaining applied experience in the profession. The successful degree candidate is prepared to enter professions within graphic design including advertising design, web design, corporate design, package design, illustration and a myriad of related fields.

The graphic design minor acquaints students with some of the core elements related to the study and profession of graphic design. Courses will consist of both academic lecture and practical studio. This minor provides students an opportunity to integrate personal creativity with any specified major degree. A background in graphic design can promote a variety of professional opportunities including areas of applied design, public relations, business graphics, product design, marketing and advertising.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Art, Fine Arts 200, 970.248.1833.

FACULTY

SUZIE GARNER (1995), Professor of Art and Department Head of Art; B.F.A., M.A., Stephen F. Austin State University; M.F.A., West Texas A&M.

CAROLYN QUINN-HENSLEY (2000), Professor of Art; B.F.A., M.F.A., University of Hawaii.

HISTORY

PROGRAMS OFFERED

Bachelor of Arts
- History
- History–Secondary Education

Minor
- History

PROGRAM DESCRIPTION
The study of history prepares the student for understanding present society and culture through a study of the past. The history program familiarizes students with the great historical civilizations and issues that have shaped our present world. History teaches students how to critically analyze information and make a compelling argument; skills that everyone needs to be successful in all their endeavors. Internships are available through museums, historical societies and public agencies. History graduates pursue careers in teaching and public history, as well as private employment and have also been very successful in gaining entrance to graduate study and law school.

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Faculty offer one-on-one guidance for course selection, field placements, student teaching and employment. Students accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings.

The secondary licensure program provides teacher education candidates with broad content knowledge in history and prepares them as teachers for grades 7 through 12. A minimum of 75 credit hours of general education and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education secondary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 211, Foundations of Education, must be taken before applying to the program.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

FACULTY

ERIKA JACKSON (2010), Assistant Professor of History; B.A., Michigan State University; M.A., Loyola University; Ph.D., Michigan State University.

DOUGLAS O'ROARK (1994), Professor of History; B.A., M.A., Ph.D., The Ohio State University.

VINCENT PATARINO, JR. (2011), Assistant Professor of History; B.A., B.S., M.A., Ph.D., University of Colorado-Boulder.

PAUL REDDIN (1970), Professor of History; B.A., Adams State College; M.A., Ph.D., University of Missouri.

STEVEN SCHULTE (1989), Professor of History; B.A. University of Wisconsin-River Falls; M.A., Colorado State University; Ph.D., University of Wyoming.

SARAH SWEDBERG (1999), Associate Professor of History; B.A., State University of New York - Plattsburgh; M.A., Ph.D., Northeastern University.

HOSPITALITY MANAGEMENT

PROGRAMS OFFERED

Associate of Applied Science
- Hospitality Management

Bachelor of Applied Science
- Hospitality Management

PROGRAM DESCRIPTION
Upon completion of the Associate of Applied Science (AAS) in Hospitality Management, students will be prepared for an entry-level position in the broad and expanding hospitality industry, as well as prepared to pursue the Bachelor of Applied Science in Hospitality Management. The field of hospitality management combines the technical skills and business proficiency necessary for success in this challenging industry. Business courses to be taken include courses in marketing, promotion, management, accounting, finance, small business management and entrepreneurship.

The Bachelor of Applied Science (BAS) in Hospitality Management combines the technical skills and business proficiency necessary for success. A unique program, the BAS degree allows students who have already earned an AAS degree to build upon their technical specialties with general education courses and junior and senior level business courses. This allows associate degree holders to gain a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework. Business courses to be taken include courses in marketing, promotion, management, accounting, finance, small business management and entrepreneurship. Upon completion of the program, students will be technically and academically prepared for leadership positions in their chosen industries. Prospective students not holding an associate of applied science degree can begin their university career at CMU in a chosen field of study with a 2-year degree and then progress to a 4-year degree using the BAS. This degree will provide students with upward mobility in their area of employment as they move into supervision/management positions.

The business department also offers the Bachelor of Business Administration with a concentration in hospitality management.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Business, Academic Classroom Building 309, 970.248.1778.

HUMANITIES

PROGRAMS OFFERED
Associate of Arts
Humanities Emphasis

PROGRAM DESCRIPTION
The Associate of Arts (AA) degree works in two ways: 1) it can function as a terminal degree; and 2) it can function as a pathway into a baccalaureate degree in the humanities. The degree program meets the requirements of the Colorado Statewide General Education Core. A student who is granted this degree can transfer to any institution in Colorado and graduate in a baccalaureate degree program by taking no more than 60 hours from that institution. The same applies for students who decide to move from the AA program into any Colorado Mesa University BA program. A number of emphases are available within the AA degree. By choosing the humanities emphasis, students can build a course of study that focuses on their area of interest in the following disciplines: creative writing, fine and performing arts, foreign languages, literature, mass communication, philosophy and/or speech.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Languages, Literature and Mass Communication; Lowell Heiny Hall 445, 970.248.1687.

INSURANCE

PROGRAMS OFFERED
Technical Certificate
Insurance

PROGRAM DESCRIPTION
The certificate in insurance is designed to certify students who possess the knowledge and skills needed to engage in insurance agent activities in the workplace. The certificate will provide students with a foundation for further study toward an insurance concentration in the BBA, which more fully prepares a person for a career as an insurance agent.

The Business Department also offers a Bachelor of Business Administration with a concentration in insurance.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Business, Academic Classroom Building 309, 970.248.1778.

INTERNATIONAL STUDIES

PROGRAMS OFFERED
Minor
International Studies

PROGRAM DESCRIPTION
The international studies minor recognizes the complex interconnections between academic disciplines, peoples in cultural contexts and opportunities for social and economic advancement for our graduates. Students from a wide variety of disciplines can supplement their major in business, social sciences, natural sciences or humanities with an international focus through this minor. Students choose from a menu of options drawn from disciplines across the campus. The interdisciplinary nature of the international studies minor is essential for preparing students to enter the new global marketplace of ideas and goods. Students taking the international studies minor are encouraged to enhance their experience by participating in a variety of study abroad opportunities available while attending CMU.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

KINESIOLOGY

PROGRAMS OFFERED

Bachelor of Arts

- Kinesiology – Adapted Physical Education
- Kinesiology – Fitness & Health Promotion
- Kinesiology – K-12 Teaching

Minor

- Personal Training

PROGRAM DESCRIPTION

Students concentrating in adapted physical education will learn to adapt or modify the physical education curriculum and/or instruction to address specific abilities of individuals. Students will learn to develop activities that are appropriate and effective for persons with disabilities. Career opportunities include: adapted physical education teacher (K-12), which requires completing the K-12 concentration coursework; activity director at an assisted living center or rehabilitation facility; physical therapist;* and occupational therapist.*

Students enrolled in the fitness/health promotion concentration should have a strong interest in the sciences as this program applies science to human function. The student will explore exercise physiology, anatomical kinesiology, community health, physical activity and aging, worksite health promotion and sports nutrition, among other subject areas. Career opportunities include: sports and wellness program instructors and directors; strength coaches for college, university and professional sports* programs; managers and exercise leaders in corporate wellness programs; nutritionist;* occupational therapist;* and personal trainer.

(*Career requires additional post-baccalaureate studies.)

The K-12 teaching concentration prepares students to teach elementary, middle and high school physical education. The degree plan includes coursework covering human anatomy and physiology, team and individual sports, exercise science and teaching methods courses. Students will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings.

Before being admitted into the teacher education program, the following courses must be completed with a grade of B or better: ENGL 111, ENGL 112, SPCH 102, PSYC 233 and EDUC 211. (English honors may be substituted for ENGL 111 and 112.) A grade of C or better is required for MATH 110. Also, a minimum cumulative GPA of 2.8 (including transfer and CMU coursework) is required of all students for admission into the program.

Students enrolled in the personal training minor should have a strong interest in fitness, health promotion and personal training. Students will engage in practical experiences that will help them with the possibility of a future career in personal training. Students will explore subject areas that include: anatomy, physiology, kinesiology, applications of physical fitness and exercise physiology.

CONTACT INFORMATION

Department of Kinesiology; Maverick Center 237, 970.248.1635.

FACULTY

RICHARD BELL, Instructor of Kinesiology; B.S., Clemson University; M.A., The Citadel; J.D., University of South Carolina; Ed.D., United States Sports Academy.

JILL CORDOVA (1992), Professor of Kinesiology and Department Head of Kinesiology; B.A., M.A., Humboldt State University; Ph.D., University of New Mexico.

KEITH FRITZ (1997), Associate Professor of Kinesiology; B.S., Oregon State University; M.S., Ph.D., University of New Mexico.

GUY LEADBETTER (1993), Professor of Kinesiology and Head Coach, Women's Cross Country; B.A., Bowdoin College; M.S., University of Montana; Ph.D., University of New Mexico.

STEVEN ROSS MURRAY (1998), Professor of Kinesiology; B.S., University of North Alabama; M.S., D.A., Middle Tennessee State University.

ROBERT RYAN, Program Director, Athletic Training Education Program and Assistant Professor of Kinesiology; B.A., University of Colorado; M.A., University of Northern Colorado.

LANDMAN/ENERGY MANAGEMENT

See Energy Management/Landman section for more information.

LIBERAL ARTS
(INTERDISCIPLINARY MAJOR)

PROGRAMS OFFERED

Bachelor of Arts

- Liberal Arts
  - Non-Education Option
  - Elementary Education Option

PROGRAM DESCRIPTION

While Colorado Mesa University provides a wide range of programs, the university may not offer a standard bachelor's degree program that serves a student's particular need. A liberal arts degree, however, is designed to offer a student the opportunity to craft a plan of study to suit his/her individual career and academic aspirations. Under the direction of an advisor, a liberal arts major will design a coherent program by choosing appropriate courses that focus on a very specific field of study.

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Our professors are experienced, knowledgeable, accessible and dedicated to the improvement of public education. Faculty offer one-on-one guidance for course selection, field placements, student teaching and employment. The elementary licensure program provides teacher education candidates with a broad content knowledge and prepares them as teachers for grades kindergarten through six. Please see the Teacher Education Admission Packet for further information on admissions criteria.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Education Option:

Center for Teacher Education, Academic Classroom Building 109, 970.248.1786.

Learn more about the programs of study listed here, and find program sheets detailing exact and complete requirements for majors and concentrations, online at coloradomesa.edu/academics.

Non-Education Option:
Department of Languages, Literature and Mass Communication, Lowell Heiny Hall 445, 970.248.1687,

–or–

Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

MANUFACTURING SUPERVISION

PROGRAMS OFFERED
Technical Certificate
Manufacturing Supervision

PROGRAM DESCRIPTION
The objective of the manufacturing supervision certificate is to provide education and training necessary to become an effective supervisor of employees in a manufacturing setting. The program targets existing supervisors, as well as prospective supervisors who are working in a manufacturing setting. The content of this certificate was determined through an independent study commissioned by Colorado Mesa University-Montrose Campus, the Montrose Economic Development Corporation and an association of over 30 manufacturing firms in western Colorado. Students enrolled in the certificate program learn techniques to become more effective communicators; expand their knowledge of general business principles and manufacturing practices; further develop their critical thinking abilities related to manufacturing and supervision; and assure their ability to understand the language of manufacturing as it relates to blueprints and geometric tolerances.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Montrose Campus, 234 South Cascade, Montrose, 970.249.7009.
–or–
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

MANUFACTURING TECHNOLOGY

PROGRAMS OFFERED
Technical Certificate
Manufacturing Technology – Computer-Aided Design Technology
Manufacturing Technology – Machine & Manufacturing Trades
Manufacturing Technology – Welding Technology
Associate of Applied Science
Manufacturing Technology – Computer-Aided Design
Manufacturing Technology – Machining Technology
Manufacturing Technology – Welding Technology

PROGRAM DESCRIPTION
Computer Aided Design Technology
Through the use of freehand sketching and computer-aided design (CAD), the student learns the techniques of basic drafting principles and methods used in today's engineering fields in the computer-aided design technology program. Drafting concepts and the processes of orthographic projection, pictorial drawing, dimensioning and geometric construction. The majority of a student's work is completed on the computer and a project in the area of his/her interest ties the course to real world concepts. Career options include architectural drafter, mechanical drafter and civil drafter.

Machine & Manufacturing Trades
The machining and manufacturing trades specialization offers classroom instruction and related lab work with hands-on activities in the use of tools and the operation of equipment found in manufacturing. Students work in the area of blueprint reading, computer numerical control (CNC), machining, general machining and maintenance, CAD and related mathematics. The program is designed to meet competency-based standards set by the industry.

Attitude and quality of workmanship are stressed. Career options include entry level machinist, computer-numerical control operator, numerical tool and process technician, manufacturing engineering technician and manufacturing inspection technician.

Machining Technology
The Associate of Applied Science with the manufacturing technology major offers classroom instruction and related lab work with hands-on activities in the use of tools and the operation of equipment found in manufacturing. In the machining technology emphasis students learn to apply industrial knowledge and skills to plan and implement designs, operate manual mills and lathes, operate computer-aided machinery with CAD/CAM software and computer-numerical controlled (CNC) machines. Students also develop the skills that enable them to read blueprints, apply appropriate mathematical concepts and understand the properties of metal and polymers. This course of study is designed to meet competency-based standards set by the manufacturing industry. With this degree, student will be qualified for the following employment opportunities: entry-level machinist, computer-numerical control operator, numerical tool and process technician, manufacturing engineering technician and manufacturing inspection technician.

Welding Technology
The welding technology program is designed to provide training and opportunity to become proficient at SMAW, GWAW, GTAW, FCAW, OAW, OAC, PAC, CAC-A on plate and SMAW on pipe. This program offers classroom lecture and related lab work. Students study welding, cutting, layout, fabrication and technical math. Safety, attitude and quality of workmanship are stressed throughout this course. The welding certificate prepares students for entry-level placement in a wide range of jobs in the welding industry and is designed to meet competency based standards set by the American Welding Society. This program trains students to become certified AWS, API, ASME welders in the welding industry.
The welding technology AAS degree prepares students for advanced level placement in a wide range of jobs in the welding industry and is designed to meet competency based standards set by the American Welding Society.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS
Physical requirements on the job include the ability to lift up to 50 pounds regularly and to stand for long periods of time while doing machine work. Average hearing and eyesight, natural or corrected, is desirable.

Certificate programs are designed to be employment directed for beginning level jobs. Students should check with a welding instructor/advisor about options for specialized employment training requiring a shorter period of training.

The Associate of Applied Science degree program includes many of the same technical courses as the technical certificate. Also included are mathematics and management courses that are essential for job advancement to more technical levels after employment.

Courses are designed to give students an adequate knowledge of metals, layout work and welding processes, along with an opportunity to gain manipulative skills and the related information needed to enter and progress in various welding occupations. Instruction and shop practice is offered in SMAW, GMAW, FCAW and GTAW of mild steel in all positions as well as pipe and specialty welding. Various cutting and fabrication methods are included. Students can arrange work experience as an elective part of the regular program after completing two semesters or more.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY

KEVIN KERN (2002), Technical Instructor of Manufacturing Technology-Welding.

WILLIAM MCCRACKEN, JR. (2002), Assistant Technical Professor of Manufacturing Technology-Machining; A.A.S., Mesa State College.

JASON SINCLAIR (2010), Technical Instructor of Manufacturing Technology-Welding. B.A., University of Montana.

DENIS THIBODEAU (1999), Technical Instructor of Manufacturing Technology-CAD; A.A.S., Rogue Community College.

AARON WILLIFORD (2009), Technical Instructor of Manufacturing Technology-Machining; A.A.S., Mesa State College; B.B.A., DeVry University.

MASS COMMUNICATION

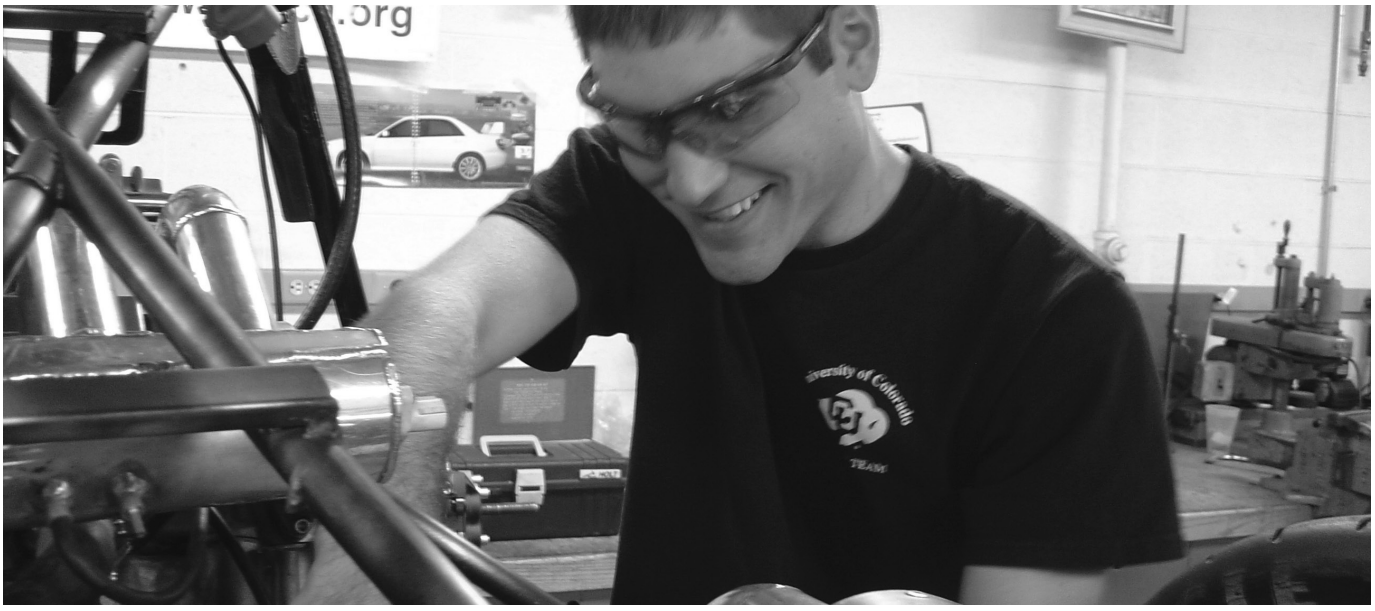
PROGRAMS OFFERED
Bachelor of Arts
Mass Communication – Media Strategies & Applications
Minor
Mass Communication

PROGRAM DESCRIPTION
The Bachelor of Arts in Mass Communication provides students with a concentration in media strategies and applications. The primary goal in the program is to offer students an opportunity to develop the knowledge, theory and skills that will assist them in securing employment in the ever-changing, broad field of mass communication. Graduates of Colorado Mesa University's mass communication program find successful careers across the country in traditional mass media (magazines, newspapers, radio and TV stations, public relations and advertising), as well as in non-traditional settings such as the Internet, non-profits and government agencies.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS
Continuation in the program after the sophomore year will be contingent upon the student's satisfying the following requirements:

1. Completion of the English Composition sequence with at least a 3.0 GPA (no grade below "B").
2. Completion of the two introductory courses (MASS 110 and MASS 201) in Mass Communication, with at least a 2.5 GPA and no grade of "D" or "F".
3. Maintenance of at least a 2.5 GPA in MASS courses, in addition to at least a 2.0 GPA overall, is necessary for Mass Communication majors to proceed to graduation.



CONTACT INFORMATION
Department of Languages, Literature and Mass Communication; Fine Arts Building, 970.248.1833.

FACULTY

BYRON EVERS (1989), Associate Professor of Mass Communication; B.S., M.S., Murray State University.

DANIEL FLENNIKEN (2005), Associate Professor of Mass Communication; B.A., M.A., University of Colorado.

ERIC SANDSTROM (2011), Assistant Professor of Mass Communication; B.A., M.A. Miami (Ohio)University.

REGIS TUCCI (1999), Assistant Professor of Mass Communication; B.A., M.A., Marshall University.

MATHEMATICS

PROGRAMS OFFERED

Associate of Science
- Mathematics Emphasis

Bachelor of Science
- Mathematics
- Mathematics - Secondary Education
- Statistics

Minors
- Mathematics
- Statistics

PROGRAM DESCRIPTION

An Associate of Science (AS) in Mathematics provides students with a reasonable exposure to foundational college-level mathematics. This degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at most public institutions in Colorado. By completing this degree, students should be able to matriculate into a baccalaureate degree in mathematics with only 60 additional hours of coursework.

With a baccalaureate major in mathematics, students develop powerful problem-solving, logical and critical thinking skills. By completing the required coursework, students gain an understanding of the nature of proof, a broad general understanding of mathematics and a deep understanding of at least one area of mathematics. Math majors also develop independent learning skills and oral and written mathematical communication skills. Mathematics majors get jobs in a wide variety of areas. Our graduates have worked for local businesses, have run their own businesses and have worked for scientific companies. Other graduates have continued their educations by attending graduate school (in mathematics, computer science and engineering), law school, medical school and veterinary school.

The major in mathematics with a concentration in secondary education will prepare students to teach in both middle schools and in high schools. While completing this degree, students develop problem-solving and critical thinking skills and are introduced to the logical and historical development of mathematical ideas. Students also learn the professional skills in teaching methods and content necessary for secondary mathematics teachers. Nationally recommended curriculum guidelines are followed in order to ensure that graduates have the mathematical content and conceptual understanding necessary for all high school mathematics courses. Graduates from this program are in demand both locally and statewide with the scarcity of mathematics teachers.

With a major in mathematics with a concentration in statistics, students develop problem-solving, logical and critical thinking skills. While completing the required coursework, students gain an understanding of the nature of proof, a general understanding of mathematics and an understanding of statistical reasoning, necessary assumptions and the correct use of statistical analysis procedures. Math and statistics majors also develop statistical software skills and oral and written mathematical communication skills. The statistics concentration in mathematics prepares students for graduate work in statistics or to enter the job force. With some additional job-specific training, students entering the job market could function as applied statisticians working in areas such as actuarial science, wildlife management, marketing, quality control and epidemiology to name a few.

Learn more about the programs of study listed here, and find program sheets detailing exact and complete requirements for majors and concentrations, online at coloradomesa.edu/academics.

A minor in mathematics is a natural enhancement to many majors outside mathematics where an understanding of mathematics is needed (e.g. physics, computer science, chemistry, biology, geology). A minor in mathematics enables non-mathematics majors to complete a focused course of study in mathematics on a smaller scale.

A minor in statistics is a natural enhancement to many majors outside mathematics where an understanding of statistical analysis of data is needed (e.g. biology, business, psychology, sociology, history, human performance and wellness, political science). A minor in statistics enables non-mathematics majors to complete a focused course of study in statistics on a smaller scale.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS
Additional expenses: A graphing calculator is recommended for several mathematics and statistics courses. See department for recommended models.

CONTACT INFORMATION
Department of Computer Science, Mathematics and Statistics, Wubben Science 132, 970.248.1407.

FACULTY

JESSE BOLLINGER, Instructor of Mathematics and Statistics; B.S., Stanford University; M.S., Stanford University.

CATHERINE BONAN-HAMADA (1996), Professor of Mathematics; B.S., M.S., Colorado State University; Ph.D., University of Colorado.

EDWARD BONAN-HAMADA (1997), Associate Professor of Mathematics; B.A., University of Rochester; M.A., University of Hawaii; Ph.D., University of Colorado.

LISA DRISKELL (2010), Assistant Professor of Mathematics; B.S., Central Michigan University; Ph.D., Purdue University.

TRACII FRIEDMAN (2002), Professor of Mathematics; B.S., Saint Joseph's University-Philadelphia; M.S., Ph.D., Lehigh University.

PHILIP GUSTAFSON (1998), Professor of Mathematics; B.S., State University of New York-Oneonta; M.S., Ph.D., Washington State University.

PHILIP KAVANAGH (1994), Associate Professor of Mathematics; B.Sc., M. Sc., University College Dublin, National University of Ireland; Ph.D., University of Wisconsin.

MAX L. MCFARLAND, Instructor of Mathematics; A.S., Colorado Mesa University; B.S., Mesa State College; M.S., University of Colorado.

RICHARD OTT (2006), Assistant Professor of Statistics; B.S., St. Mary's University; M.S., University of Missouri-Rolla; Ph.D., Rice University.

ERIK PACKARD (1996), Associate Professor of Mathematics; B.S., M.S., Ph.D., Texas Tech University.

LORI PAYNE (1996), Professor of Mathematics and Computer Science and Department Head of Computer Science, Mathematics and Statistics; B.A., Mesa College; M.S., New Mexico Institute of Mining & Technology; Ph.D., University of Northern Colorado.

MARKUS REITENBACH (2006), Assistant Professor of Mathematics; M.S., University of Ulm; Ph.D., Syracuse University.

JAMES REXROAD, Instructor of Mathematics; B.S., M.A.T., Northern Arizona University.

DANIEL SCHULTZ-ELA (2006), Assistant Professor of Mathematics Education; B.A., Carleton College; M.S., Brown University; Ph.D., University of Minnesota.

WAYN KAUI WARD, Instructor of Mathematics; B.S., Mesa State College; M.S., University of Nevada, Las Vegas.

ZHONG WU (1989), Professor of Mathematics; B.S., China University of Science and Technology; Ph.D., University of Cambridge.

MECHANICAL ENGINEERING

PROGRAMS OFFERED
Bachelor of Science
Mechanical Engineering
(degree awarded by the University of Colorado at Boulder)

Colorado Mesa University and the University of Colorado at Boulder have created a partnership to deliver a mechanical engineering program in its entirety in Grand Junction. The CMU/CU-Boulder Mechanical Engineering Partnership Program prepares students for careers in a wide range of industries through the rigorous study of mechanical engineering. Students completing the program will be awarded a Bachelor of Science in Mechanical Engineering degree from CU-Boulder.

General Engineering
Students who are ready to begin the engineering curriculum (i.e., ready for Calculus 1), but do not yet meet CU-Boulder's admission/transfer criteria listed below may begin the engineering coursework in the general engineering track. Students in the general engineering track may progress in the mechanical engineering curriculum until their junior year, at which time they must meet CU's admissions criteria or transfer to another CMU degree program.

Pre-Engineering
Students who are interested in pursuing a major in engineering but who are not yet ready to begin the engineering coursework may take preparatory classes while enrolled in the pre-engineering track. Once a student is ready for Calculus 1, the student can shift into the general engineering track.

SPECIAL REQUIREMENTS
First-Time Students
Applicants who meet both Colorado Mesa University's general admission requirements and CU-Boulder's College of Engineering and Applied Science Minimum Academic Preparation Standards (MAPS) and Guaranteed Admission Requirements for Colorado Freshmen can be admitted to the program at the outset.

If an interested first-time student does not meet the admissions criteria, the student may be admitted to CMU's pre-engineering or general engineering and subsequently apply to transfer in to the

CMU/CU-Boulder, Mechanical Engineering Partnership Program when the following are achieved:

- 2.9 GPA for all courses at Colorado Mesa University;
- Complete 2 course sequence in calculus with a grade of B or higher; and
- Complete 2 physical science courses (calculus-based physics and/or college chemistry) with a grade of 'B' or higher.

Admission at this point could occur at the end of the first year.

Transfer Students
Students also may apply to transfer into the program prior to beginning their junior year if they have earned a 2.9 cumulative GPA and completed all required lower-division coursework.

Interested students can learn more about the program and admission options at coloradomesa.edu/engineering.

CONTACT INFORMATION
Department of Physical and Environmental Sciences,
Wubben Hall 222, 970.248.1993.
-or-
Archuleta Engineering Center, 2510 Foresight Circle, Grand Junction, CO, 81505, 970.248.1551

PROGRAM DIRECTOR
TIMOTHY BROWER (2009), Director, CMU/CU-Boulder Mechanical Engineering Partnership Program; B.S., Idaho State University; M.S., Montana State University; Ph.D., Colorado State University.

FACULTY
SCOTT BEVILL (2010), Assistant Professor of Mechanical Engineering; B.S., University of Denver; M.S., Ph.D., Stanford University.

B. SCOTT KESSLER (2011), Assistant Professor of Mechanical Engineering Technology; B.S., M.S., Ph.D., University of Missouri.

GIGI RICHARD (2002), Associate Professor of Geology; B.S., Massachusetts Institute of Technology; M.S., Ph.D., Colorado State University.

MECHANICAL ENGINEERING TECHNOLOGY

PROGRAMS OFFERED
Bachelor of Science
Mechanical Engineering Technology
Associate of Applied Science
Mechanical Engineering Technology

PROGRAM DESCRIPTION
The objective of the mechanical engineering technology program is to provide the knowledge necessary to apply state-of-the-art techniques to design and build products and systems to meet the current and future needs of society. The mechanical engineering technology major is designed for a student who is doer or implementer--one who is able to apply mathematics, the natural and engineering sciences, engineering principles and current engineering practices to the solution of design problems and to the operation and testing of mechanical systems.

Laboratory courses are an integral component of the mechanical engineering technology program and are designed to develop student competence to apply experimental design methods, as well as provide a "hands-on" approach to designing and building products and systems to meet the current and future needs of society.

The Associate of Applied Science in Mechanical Engineering Technology provides graduates the skills and knowledge for a successful transition to either a career as a mechanical engineering technician or to continue in the Bachelor of Science program in mechanical engineering technology.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Physical and Environmental Sciences,
Wubben Hall 222, 970.248.1993.
-or-
Archuleta Engineering Center, 2510 Foresight Circle, Grand Junction, CO, 81505, 970.248.1551

PROGRAM DIRECTOR
TIMOTHY BROWER (2009), Director, CMU/CU-Boulder Mechanical Engineering Partnership Program; B.S., Idaho State University; M.S., Montana State University; Ph.D., Colorado State University.

FACULTY
SCOTT BEVILL (2010), Assistant Profesor of Mechanical Engineering; B.S., University of Denver; M.S., Ph.D., Stanford University.

B. SCOTT KESSLER (2011), Assistant Professor of Mechanical Engineering Technology; B.S., M.S., Ph.D., University of Missouri.

MEDICAL OFFICE ASSISTANT

PROGRAMS OFFERED
Technical Certificate, Medical Office Assistant

PROGRAM DESCRIPTION
This program prepares individuals to perform routine clinical and administrative functions in health care facilities, primarily medical clinics or physician's offices. Students who successfully complete this program will be able to perform the administrative tasks of a medical receptionist and work in the clinical areas by providing assistance with physical examinations, diagnostic tests and treatment procedures. All students who successfully complete the program are eligible to take the national certification examination offered by the American Medical Technologists, a national certifying agency, to become a registered medical assistant.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY
ANDREA LEAK (2010), Program Director of Medical Technology and Technical Instructor of Medical Office Assistant; B.S., University of Colorado; M.H.A., University of Washington.

Pending final approval

MUSIC

PROGRAMS OFFERED
- Bachelor of Arts
  - Elective Studies in Business
  - Music Performance
    - Instrumental
    - Keyboard
    - Vocal
  - Music Education -- K-12 Education
  - Music Liberal Arts
- Minor
  - Music (Instrumental or Vocal)

PROGRAM DESCRIPTION
The Bachelor of Arts (BA) in Music with a concentration in elective studies in business is designed for students who desire a career within the music industry. The comprehensive core curriculum in music includes courses in theory, history, literature, music technology, improvisation, applied study on the major instrument or voice and ensemble performance. Also included are specialized courses in music industry and marketing and advanced music technology. Required business courses include the areas of marketing, management, accounting, economics and the legal environment of business. This degree will also result in completion of the requirements for a minor in business administration. Finally, an internship component provides the opportunity for students to gain real world experience in the music industry areas of their choice. Professional success in the musical arts requires a comprehensive understanding of the new business models at work in our digital world. Our program seeks to provide this up-to- date information to enhance success for the student at every level.

The BA in Music with a concentration in music performance is designed for those students who desire a performance-focused career. A strong core curriculum of musicianship courses include music theory, history, literature, pedagogy, ensemble performance and applied study. These courses develop the student's abilities and prepare them to perform in a plethora of venues and genres such as symphony orchestras, chamber ensembles, armed forces ensembles, musical theaters, opera and countless entertainment venues. This degree also prepares students to pursue graduate study or teach privately.

The music education concentration provides students with the knowledge, skills and musicianship to become a successful music educator. Studies in music theory, history, literature, ensemble performance and applied study give the student a strong foundation on which to build a successful teaching career. Classes in conducting, instrumental, choral and elementary techniques as well as music education philosophy develop the skills and knowledge needed for a rewarding career as a K-12 educator. These skills and knowledge are applied during field experiences as well as during the student teaching internship. Please see the Teacher Education Admission Packet for further information on admissions criteria.

The BA in Music with a concentration in liberal arts is designed to meet the needs of students seeking extended training in music but who are not interested in pursuing preparation for a career in performance or public/private school music teaching. This degree includes a strong but flexible composite of music studies and additional studies in the related arts as well as the flexibility to pursue other academic areas of interest. Music majors admitted to this liberal arts concentration will be strong in music and academics and along with their music training will achieve both broad and specific learning in other academic areas of interest. They will be prepared to pursue graduate studies in music and careers in many areas of music and the arts.

The minor in instrumental music offers students in other majors the opportunity to stay involved with music in college, gaining experience and skills in music lessons, ensembles and academics. The minor includes three years of ensembles and lessons on an applied instrument; academic courses in music theory, appreciation and literature; as well as an upper division elective.

The vocal music minor provides training and performance opportunities for students seeking music development in voice

as their secondary area of study. Fundamental studies in piano, music reading and theory, two years of voice lessons, three years of performing in choral ensembles, studies in diction and conducting and performance training in opera scenes comprise this minor. Audition for acceptance into the vocal minor is required.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS
Students seeking admittance as a music major must pass a performance audition, a music theory placement exam and a piano proficiency assessment. Admission to Colorado Mesa University does not guarantee admission into a music degree program. Prospective music majors should consult the music department website or contact the music department for information about audition material and scheduling an audition with the faculty in their area of interest.

Following the audition, students will be notified by letter regarding audition results. Students admitted as new music majors will be assigned an advisor and should plan to attend an orientation, registration and advising session. If the advisor is unavailable, students should contact the Department Head of Music.

CONTACT INFORMATION
Department of Music, Moss Performing Arts Center 113, 970.248.1233.

FACULTY

MONTE ATKINSON (1985), Professor of Music; A.S., Snow College-Utah; B.F.A., Utah State University; M.M., D.M.A., University of Illinois.

ADAM BALLIF (2005), Associate Professor of Music; B.M., Brigham Young University; M.M., D.M.A., Arizona State University.

JACK DELMORE (1992), Professor of Music; B.M., University of Massachusetts-Lowell; M.M., New England Conservatory of Music; D.M.A., University of Arizona.

CARLOS ELIAS (2000), Professor of Music; B.M., Biola University; M.M., University of Cincinnati; Artist Diploma, Duquesne University.

SEAN FLANIGAN (2006), Assistant Professor of Music; B.S., M.M., University of Illinois; D.M.A., University of North Texas.

CALVIN HOFER (1998), Professor of Music and Department Head of Music; B.A., South Dakota State University; M.M.E., University of Wisconsin; D.M.A., University of North Texas.

ARTHUR HOULE (2006), Professor of Music; B.M., University of Massachusetts-Lowell; M.M. New England Conservatory; D.M.A., University of Iowa.

DARIN KAMSTRA (2004), Associate Professor of Music; B.A., B.M., Eastern Washington University; M.M., University of Northern Colorado; D.M.A., University of Illinois at Urbana-Champaign.

NURSE AIDE

PROGRAMS OFFERED
Technical Certificate
Nurse Aide

PROGRAM DESCRIPTION
The nurse aide certificate provides the student with entry-level skills required for employment as an aide in a long-term care facility, an acute care facility, or a home health care agency. Special needs of the geriatric population are emphasized. Students who successfully complete this certificate qualify to take the State Certification Examination. Instruction includes basic nursing assistant procedures, skills, restorative services, general household activities, patient care, safety and emergency care. Students gain an understanding of the responsibilities involved in working with patients of all ages, in both wellness and illness, and issues of mental health, patient rights and patient/family interactions. A minimum of 107 hours of training is required.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

NURSING

PROGRAMS OFFERED

Technical Certificate
Practical Nurse
Associate of Applied Science in Nursing
Bachelor of Science in Nursing

PROGRAM DESCRIPTION

The practical nurse (PN) program is designed for students interested in an entry-level position in the nursing career ladder program. The PN program has full approval by the Colorado State Board of Nursing. Completion of the PN certificate allows students to progress to the second year of the Associate of Applied Science in Nursing or apply for advanced placement in the Bachelor of Science in Nursing degree. The PN program prepares the student to be a direct care giver in hospitals, long-term facilities and ambulatory care-clinic settings. The potential student must demonstrate college-level proficiency in reading and writing in order to be admitted to this program. This program has selective admission requirements and requirements may change from year to year. It is the student's responsibility to obtain the current admission requirements. Admission to the University does not guarantee admission to the program; a separate admission application to the program is required.

The Associate of Applied Science (AAS) program is designed for practical nurses who are seeking a two-year nursing degree which opens up greater employment opportunities, increased compensation and more job security. The AAS in Nursing program has full approval by the Colorado State Board of Nursing. The AAS program offers a balance between general college and nursing education and prepares students to be a direct care giver in hospitals, long-term facilities and ambulatory care-clinic settings. The potential student must demonstrate college-level proficiency in reading, writing and mathematics in order to be admitted to this program. This program has selective admission requirements and requirements may change from year to year. It is the student's responsibility to obtain the current admission requirements. Admission to the University does not guarantee admission to the program; a separate admission application to the program is required.

The Bachelor of Science in Nursing (BSN) program and the Registered Nurse to Bachelor of Science in Nursing programs have full approval by the Colorado State Board of Nursing and are accredited by the Commission on Collegiate Nursing Education (CCNE). The programs are designed for high school graduates, associate and diploma RNs and PNs. The four-year program provides educational experiences to prepare a professional nurse generalist to practice in a variety of health care settings. The program integrates nursing theory, practice and science with a broad liberal arts education. It has been developed to prepare a highly competent professional with the education necessary to meet the increasing need for quality health care in society today and provides students with the foundation for graduate study in nursing. Admission to the University does not guarantee admission to the program; a separate admission application to the program is required.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS

Progression requirements: All nursing courses must be completed in sequence. All required 200 level courses must be completed before 300 level nursing courses may be taken. All required 300 level courses must be completed before 400 level nursing courses may be taken.

Students must complete all 200 level nursing courses or be an (RN) advanced placement student to enroll in the nursing elective courses.

The RN-BSN program is the final step on the nursing career ladder at Colorado Mesa University. Registered nurses must submit a separate application for the RN-BSN program and will receive credit for prior nursing learning experiences according to "The Colorado Nursing Articulation Model."

Admission to Colorado Mesa University does not guarantee admission into the nursing program, which requires a separate application. Please contact the health sciences department for additional information.

High school courses in biology, chemistry and algebra are recommended. All non-nursing college courses must be completed before a student can be admitted to the nursing programs. An admission committee selects students from applicants who best meet requirements. All admission materials must be on file in the Department of Health Sciences office prior to deadlines established for each program:

LPN program: March 1 for fall entrance
AAS program: October 1 for spring entrance
BSN Program: October 1 for spring entrance, or March 1 for fall entrance.

Students admitted to nursing programs must undergo a background check and maintain current CPR certification and professional liability insurance.

Students transferring in credit for human anatomy and physiology taken at out-of-state accredited colleges/universities must provide evidence that these courses had separate laboratory components before the course can be accepted to fulfill program requirements. This will not necessarily appear on the transcript.

Students must have a 2.0 ("C") on a 4.0 scale or higher grade for all courses required for completion of the nursing programs. This policy applies regardless of when the course was taken. A "D" grade or lower in any required course is not acceptable.

Any RN or LPN who desires to enroll in a nursing course for personal enrichment only must secure permission from the course instructor.

CONTACT INFORMATION
Department of Health Sciences, Maverick Center 173, 970.248.1398.

FACULTY

DEBRA BAILEY, R.N. (2006), Assistant Professor of Nursing; A.S., B.S.N., Mesa State College; M.S., University of Colorado; M.S.F.N.P., University of Colorado.

DIANA BAILEY, R.N. (2010), Assistant Professor of Nursing; A.S., B.S.N., Mesa State College; M.S., Walden University.

TONYA CHAPIN, R.N. (2008), Assistant Professor of Nursing and PN Program Director; B.S.N., Mesa State College.

KELLY COFFIN, R.N. (2009), Assistant Professor of Nursing; A.S., B.S.N., Washburn University; M.S., Walden University.

CATHY FELLER, R.N. (2011), Assistant Professor of Nursing, B.S.N., University of Maine; M.S.N., Walden University.

SANDY FORREST, R.N. (1980), Professor of Nursing; B.S.N, Florida International University; M.S.N., University of Miami; Ph.D., University of Texas.

SUSAN GOEBEL, R.N. (1998), Associate Professor of Nursing; B.S.N., M.S., University of North Dakota.

BETHANY HOFFMAN, R.N. (1994), Associate Professor of Nursing; B.S.N., University of Cincinnati; M.S., University of Colorado.

ALMA JACKSON, R.N. (2008), Assistant Professor of Nursing and BSN Program Director; B.S., Loretto Heights College (Regis University); M.S. N. University of Northern Colorado; .Ph.D., Capella University.

SUSAN MATHEWS, ATL Coordinator; B.A. Otterbein College; B.S. Adams State College, EMT-B, Trinidad State Junior College; EMT-P, Pueblo Community College.

CRISTA MILLER, R.N., Instructor of Nursing; B.S.N., Mesa State College.

KRISTINE REUSS, R.N. (1990), Professor of Nursing and Director of Health Sciences; B.S., M.S.N., Ph.D., University of Colorado.

GENELL STITES, R.N. (2008), Assistant Professor of Nursing and LPN-AAS Program Director; B.S.N., University of Northern Colorado; M.S.N., Regis University.

JUDY WILLIAMS, R.N. (2010), Assistant Professor of Nursing, B.S.N., Mesa State College, M.S.N., Walden University.

JENNIFER ZADROZNY, R.N. (2008), Assistant Professor of Nursing-Maternal and Child Care; B.S.N. Mesa State College; M.S.F.N.P., University of Colorado Health Sciences Center.

PEACE OFFICER STANDARDS AND TRAINING (POST)

PROGRAMS OFFERED
- Technical Certificate
  - Police Officer Standards and Training (POST)

PROGRAM DESCRIPTION
This police academy certificate program exceeds the Colorado Peace Officers Standards Training (POST) requirements for peace officer entry level training. The individual training requirements for arrest control, law enforcement driving and firearms are included in the program. Students enrolled in the program will earn 36 credit hours that may be applied towards an associate's or bachelor's degrees at Colorado Mesa University.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS
This is a 14-week program that requires full time participation during the weeks of enrollment. The program is not an open enrollment and requires a separate application to the academy. See the academy director for details.

CONTACT INFORMATION
Director, Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY

WILLIAM GARDNER, Technical Instructor of POST Academy; Program Director of POST. Academy; B.S., Colorado Christian University; M.P.A., University of Colorado.

PHILOSOPHY

PROGRAMS OFFERED
- Minor
  - Philosophy

PROGRAM DESCRIPTION
Philosophy explores fundamental questions: What is real? What is beauty? How should we behave? How do we know what we know? The answers to these questions apply to all other disciplines, problems and life endeavors. While a career in philosophy usually means teaching philosophy, many professionals--writers, journalists, psychologists, doctors, lawyers, scientists, among others--have degrees in philosophy because their work requires critical thinking and an attention to assumptions and logic.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Languages, Literature and Mass Communication; Lowell Heiny Hall 445, 970.248.1687.

FACULTY

LES MILLER (2005), Assistant Professor of Philosophy; B.A., Mesa State College; M.A., Ph.D., Claremont Graduate University.

PHYSICAL SCIENCES

PROGRAMS OFFERED
- Associate of Science
  - Geology Emphasis
  - Physics Emphasis
- Bachelor of Science
  - Physical Sciences – Chemistry

Physical Sciences – Environmental Geology
Physical Sciences – Geology
Physical Sciences – Geology - Secondary Education
Physical Sciences – Physics

Minors
Chemistry
Geology
Physics
Watershed Science

PROGRAM DESCRIPTION

Chemistry

Chemistry can be described as the systematic study of matter in the universe. It is often referred to as the "central science" in that it acts as the connection between many other disciplines including physics, biology, engineering, earth science, environmental science and medicine. Recent graduates have been successful in the chemical industry and in secondary education. Many have continued their education in graduate and professional schools.

The chemistry major involves a classic chemistry curriculum comparable to those offered at colleges and universities across the nation. Required courses include two semesters each of general, organic and physical chemistry and one semester each of analytical chemistry and advanced laboratory. In addition, electives are chosen from a list including biochemistry, instrumental analysis, advanced organic chemistry, main group elements and transition elements.

Opportunities for student research are numerous and the program is well equipped with modern chemical instrumentation, including a 300 MHz FT-NMR spectrometer, FT-IR and UV-Visible spectrophotometers, high performance liquid and ion chromatographs and an inductively-coupled plasma atomic emission spectrometer.

As the "central science," a strong background in chemistry is a wonderful complement to many other majors. A chemistry minor should be considered by any student who is interested in a career in science, medicine, patent law or technical sales.

Environmental Geology

The environmental geology concentration is designed for students who (1) desire a strong liberal arts education with emphasis on environmental issues within the earth sciences, (2) wish to pursue a graduate degree in environmental geology, or (3) desire a professional or technical career. The environmental geology concentration has the same basic framework as the geology concentration, but has a stronger emphasis on geologic hazards, ground-water and surface-water hydrology, low-temperature geochemistry, biological systems and environmental science. Recent graduates are attending graduate programs at major universities or have entered the work force as geological technicians or professional geologists.

Most classes have a strong field component so that students experience the diverse geological setting of the Grand Junction area. Equipment available includes a computer-assisted X-ray diffractometer, research petrographic microscopes, binocular microscopes, scanning-electron microscopes (available through the biology department), GPS units, short-period and long-period seismometers and a magnetometer. Computer facilities include modern PC systems with software basics for communications, database management, word-processing, geographic information systems (GIS) and geostatistics.

Geology

The geology concentration is designed for students who (1) desire a strong liberal arts education with emphasis on the

Learn more about the programs of study listed here, and find program sheets detailing exact and complete requirements for majors and concentrations, online at coloradomesa.edu/academics.

earth sciences, (2) wish to pursue a graduate degree in geology, or (3) desire a professional or technical geoscience career. Recent graduates are attending graduate programs at major universities or have entered the work force as geological technicians or professional geologists.

Instruction takes place in a state-of-the art science complex, which houses several instructional laboratories, a projects room, a computer applications laboratory, a class preparation room, a petrology-mineralogy laboratory, rock-storage facilities and a sample preparation room.

Most classes have a strong field component so that students experience the diverse geological setting of the Grand Junction area. Equipment available includes a computer-assisted X-ray diffractometer, research petrographic microscopes, binocular microscopes, scanning-electron microscopes (available through the biology department), GPS units, short-period and long-period seismometers and a magnetometer. Computer facilities include modern PC systems with software basics for communications, database management, word-processing, geographic information systems (GIS) and geostatistics.

The geology secondary education licensure concentration is structured for graduates to pursue teaching careers at the middle or high school level. The basic curriculum includes all of the major topics within a traditional geology program while also incorporating teacher education courses required for licensure by the state of Colorado.

A minimum of 75 credit hours of general education and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply to the Center for Teacher Education secondary licensure program. Please contact the Center for Teacher Education for further information on admissions criteria.

The geology minor is designed for students who wish to take additional basic geology courses in support of their degree aspirations in other areas. A total of 21 geology credit hours are required. Most classes have a strong field component so that students can enjoy the diverse geological setting of the Grand Junction area.

Physics

The physics concentration serves as a foundation for a wide array of careers. Physics is the study of the universe: what it's made of and how it works, ranging from stars and galaxies to atoms and nuclei and everything in between. Physics forms the foundation of many technical fields including electronics and optics and also features prominently in many of the hottest areas of current research and innovation, such as the multidisciplinary fields of nanotechnology and biophysics. Physics majors have gone on to graduate programs in physics, materials sciences, aerospace engineering and electrical engineering and to medical school. They have also gone directly into jobs in engineering, business and research.

Learn more about the programs of study listed here, and find program sheets detailing exact and complete requirements for majors and concentrations, online at coloradomesa.edu/academics.

Physics forms the foundation of many technical and scientific fields. A physics minor is a good complement to a mathematics, chemistry, geology, environmental science or biology major.

Watershed Science
The watershed science minor is an interdisciplinary program designed to serve the regional need for scientists with a strong background in water-related issues. It is a useful complement to environmental, physical and biological science majors, providing students in these fields with certification of focused coursework. Combined with the relevant BS, plus additional calculus and physics courses, the minor satisfies the federal government's requirements for qualification as a hydrologist. The proximity of Colorado Mesa University to the Colorado, Gunnison and Green Rivers, the drainages of the Colorado National Monument and the high arroyos create an ideal location for the study of watershed science.

CONTACT INFORMATION
Department of Physical and Environmental Sciences, Wubben Science 232, 970.248.1993.

FACULTY

ANDRES ASLAN (1999), Professor of Geology; B.S., Brown University; M.S., Ph.D., University of Colorado.

JAMES AYERS (2007), Associate Professor of Chemistry; B.S., University of Texas-Austin; Ph.D., Stanford University.

REX COLE (1995), Professor of Geology; B.S., Colorado State University; Ph.D., University of Utah.

DAVID COLLINS (2006), Associate Professor of Physics; B.S., Rhodes University; Ph.D., University of Texas-Austin.

TIMOTHY D'ANDREA (2009), Assistant Professor of Chemistry; B.S. Ursinus College; Ph.D. University of Colorado.

HAROLD HASE, Instructor of Geology; B.S., University of Wisconsin-Milwaukee; M.S., Michigan Tech University.

VERNER JOHNSON (1989), Professor of Geology; B.A., M.S., Southern Illinois University; Ph.D., University of Tennessee.

SUZANNE KENNEY, Instructor of Chemistry; B.S., M.S., Clarkson University.

RICHARD LIVACCARI (1997), Professor of Geology; B.S., University of New Mexico; M.S., State University of New York-Albany; Ph.D., University of New Mexico.

DONN LORHAMMER, Instructor of Mathematics and Geology; B.S., University of Utah; M.S., Naval Postgraduate School.

Learn more about the programs of study listed here, and find program sheets detailing exact and complete requirements for majors and concentrations, online at coloradomesa.edu/academics.

CHAD MIDDLETON (2006), Associate Professor of Physics; B.S., Eastern Illinois University; Ph.D., University of Tennessee, Knoxville.

GIGI RICHARD (2002), Associate Professor of Geology; B.S., Massachusetts Institute of Technology; M.S., Ph.D., Colorado State University.

JOSEPH RICHARDS (1995), Professor of Chemistry; B.A., University of San Diego; Ph.D., University of North Carolina.

WILLIAM TIERNAN (1999), Professor of Physics; B.A., Colby College; Ph.D., University of Massachusetts.

PHYSICS

SEE PHYSICAL SCIENCES

POLITICAL SCIENCE

PROGRAMS OFFERED

Bachelor of Arts
- Political Science

Minors
- Political Science

PROGRAM DESCRIPTION

The political science program provides students with a working knowledge of the concepts, theories, approaches and practical applications to political and governmental systems within the state, national and international arenas. Students majoring in political science are prepared for careers in government, law, criminal justice and non-governmental organizations. Many graduates are currently employed as congressional staff members, gubernatorial staff, state agency officials, hold elective office or have successfully graduated from law school.

One attractive aspect of the program is the opportunity to intern in a variety of settings in Washington, D.C., Denver and Grand Junction. These internships allow students a chance to acquire practical experience while increasing the opportunity to network. Many of our student interns are now working in jobs they obtained directly as a result of their intern experience. CMU political science graduates have also been successful in gaining entrance to graduate and law schools. The political science program supports a political science club, a local chapter of the national honor society Pi Sigma Alpha and the International Relations Club.

A minor in political science is a great complement for students majoring in any other field, particularly mass communications and criminal justice. The degree provides a thorough understanding of politics and government organizations which is helpful to anyone working in a career that is either regulated by government, has government as a customer, or needs to lobby government to protect its interests.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

FACULTY

TIMOTHY CASEY (1998), Professor of Political Science; B.S., Northern Arizona University; M.A., University of San Francisco; Ph.D., Arizona State University.

JUSTIN GOLLOB (2008), Assistant Professor of Political Science; B.S., Idaho State University; M.A., Ph.D., Temple University.

JOHN REDIFER (1994) Professor of Political Science; B.A., University of Maryland; M.A., Ph.D., Colorado State University.

PROCESS SYSTEMS TECHNOLOGY

PROGRAMS OFFERED

Associate of Applied Science
- Process Systems Technology

PROGRAM DESCRIPTION

The process systems technology program prepares students for entry-level employment as process operators or technicians. A process operator/technician is a key member of a team of people responsible for planning, analyzing and controlling the production of products from the acquisition of raw materials through the production and distribution of products to customers in a variety of process industries.

This program provides an understanding of process equipment and its principles of operation and control. The graduate will understand the technical aspects of the work, the responsibilities of the work and the importance of safety in this vitally important, shift-oriented position. Industries interested in the graduates from the program include, but are not limited to, oil exploration and production, mining and mineral processing, petroleum product manufacturing, advanced manufacturing, pharmaceutical production, food and beverage, electric power generation, drinking water treatment and wastewater treatment.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY

JOSEPH QUESENBERRY (2004), Technical Instructor of Applied Mathematics; B.S., Mesa State College.

JOHN SLUDER (1998), Assistant Technical Professor of Technology Integration.

JACK YON (2003), Assistant Technical Professor of Technology Integration; A.A.S., Mesa State College.

PSYCHOLOGY

PROGRAMS OFFERED

Bachelor of Arts
- Psychology
- Psychology – Counseling Psychology

Minor
- Psychology

PROGRAM DESCRIPTION

The psychology program provides students with a working knowledge of the methods and findings of modern psychology. Students may pursue the Bachelor of Arts (BA) in Psychology or the BA in Psychology with a concentration in counseling psychology.

All majors are required to complete some laboratory coursework in which they conduct psychological science research. Internships are required for counseling students and are available at nearby human service agencies and treatment centers. Students majoring in psychology are prepared to work in a wide variety of settings, including human services (counseling and social work), public affairs, business, sales, criminal justice and (following graduate study) psychotherapy, teaching and research. The psychology program provides a strong foundation for graduate study in psychology and related disciplines.

The psychology program sponsors the Psychology Club and a local chapter of the national honor society in psychology, Psi Chi. Through active membership in these organizations, students are encouraged to become involved in community service and to attend and present their research at regional and national conferences.

A minor in psychology requires the student to acquire working knowledge of the methods and findings of modern psychology. To earn the minor, a student must take the research methods course, along with several topical courses in psychology. A student with this minor will have a deeper understanding of the processes that shape behavior, which can then be applied to a wide variety of areas.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

FACULTY

SUSAN BECKER (1996), Professor of Psychology; B.A., Reed College; M.A., University of Colorado-Colorado Springs; Ph.D., University of Arizona.

KAREN FORD (1984), Professor of Psychology; B.A., Mississippi College; M.A., Northeast Louisiana; Ph.D., University of Mississippi.

MYRA HEINRICH (1983), Professor of Psychology; B.S., M.A., Ph.D., University of North Dakota.

JESSICA HERRICK (1996), Professor of Psychology and Department Head of Social and Behavioral Sciences; B.A., M.S., Ph.D., University of Wyoming.

BRIAN PARRY (2008), Assistant Professor of Psychology; B.A., University of Utah, M.S., Ph.D., Brigham Young University.

PUBLIC ADMINISTRATION/ PUBLIC SAFETY

PROGRAMS OFFERED
Bachelor of Applied Science
Public Administration/Public Safety

PROGRAM DESCRIPTION
The Bachelor of Applied Science (BAS) in Public Administration/ Public Safety combines the technical skills required of first responders with the management training necessary for success in areas related to public safety. A unique program, the BAS allows students who have already earned an Associate of Applied Science degree or have completed a federal or state certified training program in law enforcement, fire sciences, emergency medical services or related fields to build on their technical specialties with general education courses and junior and senior level management classes. Depending on their previous education, students should be able to complete the BAS degree within four additional full-time semesters.

BAS students will be technically and academically prepared for leadership positions in their chosen fields. This degree will assist students in their upward mobility in their area of employment as they move into supervisory positions.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

FACULTY

JOHN REDIFER (1994), Professor of Political Science; B.A., University of Maryland; M.A., Ph.D., Colorado State University.

PUBLIC SAFETY DIVING

PROGRAMS OFFERED
Technical Certificate
Public Safety Diving

PROGRAM DESCRIPTION
This certificate provides entry-level skills required for public safety diving. Instruction includes basic open water scuba skills, dry suit and full face mask skills, line tending, drowning investigations, operational duties, safety and responsible diving practices. Students gain valuable skills for searching, collecting, preserving and processing underwater crime scene evidence. Students will be required to work in low visibility and potentially high entanglement environments. Career options include positions as investigators, sub-surface crime scene specialists, forensic investigators, police divers, team training officers, safety officers, water operations supervisors and forensic researchers.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

RADIOLOGIC TECHNOLOGY

PROGRAMS OFFERED
Associate of Applied Science
Radiologic Technology
Bachelor of Applied Science
Radiologic Technology

PROGRAM DESCRIPTION
The Associate of Applied Science (AAS) in Radiologic Technology is two years in length and includes classroom studies and clinical experience. Most of the classroom studies are during the fall and spring semesters of the first year of the program. Completing general education or required support courses before beginning

the program does not decrease the length of the program. However, it does considerably decrease the semester credit hour load that will be necessary to graduate as proposed.

All classroom studies are conducted on the Colorado Mesa University campus. Clinical experience includes rotations at several clinical facilities throughout western Colorado. The structure of the radiologic technology program requires the student to attend the eight week summer session between the first and second year of study. In addition, sometime during the second year, an eight week rotation in Delta, Montrose, Rifle, Glenwood Springs or Rangely is required.

Following successful completion of the AAS in Radiologic Technology the graduate is eligible to sit for the national registry examination administered by the American Registry of Radiologic Technologists. A passing score on this examination results in the granting of a certificate of registration that allows the privilege to use the title "Registered Technologist" and to use the abbreviation R.T. following the graduate's name.

The Bachelor of Applied Science (BAS) in Radiologic Technology combines the technical skills and patient care skills necessary for success in today's health care arena. The BAS allows students who have already earned an AAS to build upon their technical specialties with general education courses and junior and senior level radiologic science courses. This allows associate degree holders to gain a baccalaureate degree in approximately four additional full-time semesters, depending upon prior coursework. Courses to be taken include advanced patient care, quality management, informatics in radiology, research and areas of specialization such as CT, MR and mammography. Upon completion of the program, students will be technically and academically prepared for leadership positions in their chosen specialties.

Prospective students not holding an AAS degree can begin their university career at CMU in a chosen field of study with a 2-year degree and then progress to a 4-year degree using the BAS. This degree will provide students upward mobility in their area of employment as they move into specialty areas as well as supervision/ management positions.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS
Students applying to the radiologic technology program must submit additional material. Students applying for admission into the program must be admitted into the general University. Admission to Colorado Mesa University does not guarantee admission into the radiologic technology program, which requires a separate application. Please contact the health sciences department for additional information. NOTE: HSCI 101 may be used as an applied studies general education elective for this program.

CONTACT INFORMATION
Department of Health Sciences, Maverick Center 173, 970.248.1398.

FACULTY

LAJUANA EHLERS (2008), Assistant Professor of Radiologic Technology; B.S. Northern Arizona State University; M.E. Colorado State University.

BETTE SCHANS (1994), Professor of Radiologic Technology; B.S., Metropolitan State College; M.S., University of Colorado; Ph.D., Colorado State University.

PATRICE WARD (1998), Professor of Radiologic Sciences; B.S., Colorado Christian University, M.Ed. Lesley University; Ph.D. Colorado State University.

REAL ESTATE BROKER

PROGRAMS OFFERED
Technical Certificate
Real Estate Broker

PROGRAM DESCRIPTION
This certificate program is designed for students who wish to complete the hours of education requirements of the Colorado Real Estate Commission for Broker Licensing. Students who successfully complete this course of study will be awarded an REC 33 Certificate, which enables them to sit for the State Broker Licensing examination. Upon successful completion of the state exam, students can pursue employment as residential/ commercial real estate agents or business brokerage agents.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

SOCIAL SCIENCE

PROGRAMS OFFERED
Associate of Arts
Social Science Emphasis

PROGRAM DESCRIPTION
The Associate of Arts (AA) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The AA with an emphasis in social science is the appropriate choice for students who will take upper division coursework in the arts, humanities, or social and behavioral sciences. The degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at institutions in Colorado. The social science emphasis provides students with the opportunity to develop a broad understanding of the various disciplines which traditionally constitute the social sciences: anthropology, history, political science, sociology, psychology, economics and geography.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Social and Behavioral Sciences, Houston Hall 212G, 970.248.1696.

FACULTY

JAMES CURTSINGER, Instructor of Geography; B.A., M.A., Colorado State University.

SOCIOLOGY

PROGRAMS OFFERED
- Bachelor of Arts
  - Sociology
  - Sociology – Human Services
- Minors
  - Sociology

PROGRAM DESCRIPTION
Sociology is the study of society, including social action, social organization and social change. Sociologists seek to understand causes and consequences of human interaction and behavior. Because all human behavior is social, the subject matter of sociology ranges widely -- from forms of inequality, to social institutions like the family and religion, to human lives and bodies. Sociology encompasses a variety of theoretical perspectives and research methodologies to study social patterns and problems. Sociological studies inform journalists, policymakers and social service agencies.

All sociology majors gain important skills in critical thinking, research methods and responsible citizenship. Students in the sociology concentration are prepared for future graduate work in sociology and related disciplines, as well as for a wide variety of careers in sectors such as business, the health professions, the criminal justice system, social services, human resources and government.

Students in the human services concentration take courses in psychology and counseling psychology, in addition to their sociology coursework. Students in the human services concentration develop skills and knowledge relevant to careers and further education in social work and related fields.

Students who minor in sociology develop knowledge of human interactions and the social world, along with important critical thinking and communication skills. A minor in sociology enhances virtually any academic or professional major.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Social and Behavioral Sciences; Houston Hall 212G, 970.248.1696.

FACULTY

CLARE BOULANGER (1993), Professor of Anthropology; B.A., State University of New York-Plattsburgh; M.A., Ph.D., University of Minnesota.

ADELE CUMMINGS (1996), Professor of Sociology; B.A., M.S., Florida State University; Ph.D., Duke University.

BARRY MICHRINA (1990), Professor of Anthropology; B.S., St. Francis College; M.S., Colorado State University; Ph.D., Pennsylvania State University.

ABIGAIL RICHARDSON (2008), Assistant Professor of Sociology; B.A., Tulane University; M.A., Ph.D., Brigham Young University.

BRENDA WILHELM (2000), Professor of Sociology; B.A., University of Minnesota; M.A., Ph.D., University of Arizona.

SPANISH

PROGRAMS OFFERED
- Bachelor of Arts
  - Spanish – Applied Professional Spanish
  - Spanish – Literature and Language
  - Spanish – Secondary Education
- Minors
  - Spanish

PROGRAM DESCRIPTION
Spanish majors at Mesa choose from one of three tracks: applied professional, secondary education licensure and literature and language. Students learn to communicate in Spanish and explore Spanish-speaking cultures and communities.

Applied professional majors strengthen their skills in the professional environment including translation, (judicial) interpreting, business Spanish and Spanish for medical and social services. They also gain experience through internships in a variety of professional settings, including the sheriff's department, the county courthouse and various medical offices.

Secondary education majors study all aspects of the language and cultures of the Spanish-speaking world, including linguistics, phonetics and phonology, foreign language teaching methods and the literatures of Spain and Latin America. The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Please see the Teacher Education Admission Packet for further information on admissions criteria.

The study of Spanish involves developing skills in speaking and writing Spanish clearly, understanding spoken and written Spanish and interpreting cultural characteristics found in Spanish-speaking countries.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Languages, Literature and Mass Communication; Lowell Heiny Hall 445, 970.248.1687.

FACULTY

THOMAS ACKER (1999), Professor of Spanish; B.S., Kutztown University; M.A., Ph.D., Temple University.

TYLER ANDERSON (2006), Associate Professor of Spanish; A.A., Ricks College; B.A., M.A., Brigham Young University; Ph.D., Pennsylvania State University.

BLAKE CROSSLEY, Instructor of Spanish; B.A., M.A., Brigham Young University.

ALBINO GONZALES, Instructor of Spanish; B.A., Adams State College; M.A., Arizona State University; Ed.D., Arizona State University.

ANDREW GORDON (1998), Professor of Spanish; B.A., University of Colorado-Boulder; M.A., New York University; Ph.D., Columbia University.

LUIS SILVA-VILLAR (2000), Professor of Spanish; M.A., Real Conservatorio Superior De Musica de Madrid; M.A., Ph.D., University of California - Los Angeles.

MAYELA VALLEJOS-RAMIREZ (2003), Associate Professor of Spanish; B.A., Universidad de Costa Rica; M.A., West Virginia University; Ph.D., University of Nebraska.

SPEECH

PROGRAMS OFFERED

Minor
Speech

PROGRAM DESCRIPTION

The speech minor offers a broad range of courses focusing on human communication behaviors and is designed to complement any major. In a survey of 480 companies and public organizations, communication skills ranked first among the personal qualities of college graduates sought by employers. The coursework is designed to improve oral message sending and relational communication skills. You will study presentation skills, conflict resolution, leadership and nonverbal and intercultural communication, all important skills in our global society.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION

Department of Theatre and Speech, Moss Performing Arts Center 113, 970.248.1233.

FACULTY

PAULA CASEY, Instructor of Speech; B.S., M.A., Northern Arizona University.

SANDRA WOODWORTH, Instructor of Speech; B.A., M.S., Fort Hays State University; Ph.D., Belmont University.

SPORT MANAGEMENT

PROGRAMS OFFERED

Associate of Science
Sport Management

Bachelor of Science
Sport Management

Minor
Sport Management

PROGRAM DESCRIPTION

The Associate of Science (AS) in Sport Management is designed for students who intend to continue their education and obtain a baccalaureate degree. The degree program includes the Colorado Statewide General Education Core and meets the lower-division general education requirements at most public institutions in Colorado. Graduates of this program may obtain entry-level positions in sport management or continue to pursue their bachelor-level education to obtain eventual higher-level positions related to sport management, business, or kinesiology.

The Bachelor of Science in Sport Management prepares students to enter the world of sport business or pursue a graduate degree. The sport management degree provides an overview of the history and role of sport in society and covers topics such as leadership and ethics, governance and communication and legal considerations in sport operations. Students will also obtain business administration skills through courses in accounting, marketing, economics and business information technology.

Opportunities for college graduates with sport management education and experience are very diverse and challenging. As sport has evolved into an integral part of the American culture, the operations of sports programs have become more sophisticated and complex. With an understanding of the intricacies of sport activities and knowledge of effective business practices, graduates will be prepared to oversee sport programs and facilities. Sport management positions are found in a variety of settings including schools, colleges and universities, public and private agencies, government and the military.

The minor in sport management provides a strong platform for students to combine their interests in business with the business of sports. Students will explore subject areas which include: principles of management, organization/administration/legal considerations, marketing, governance and communication, sport law and risk management, leadership and ethics. This minor could complement business or mass communications majors.

CONTACT INFORMATION

Department of Kinesiology; Maverick Center 237, 970.248.1635.

FACULTY

RICHARD BELL, Instructor of Kinesiology; B.S., Clemson University; M.A., The Citadel; J.D., University of South Carolina; Ed.D., United States Sports Academy.

STEVEN ROSS MURRAY (1998), Professor of Kinesiology; B.S., University of North Alabama; M.S., D.A., Middle Tennessee State University.

SUSTAINABILITY PRACTICES

PROGRAMS OFFERED

Technical Certificate
Sustainability Practices

PROGRAM DESCRIPTION

"Sustainability" is a way of living that meets the needs of the present without compromising the ability of future generations to meet their own needs. In order to achieve sustainability, we must examine our approach to energy, food, shelter, transportation and other aspects of everyday life. Can we continue our current approach indefinitely? What changes need to occur to make our approach sustainable? What can we do to make those changes?

Through the certificate in sustainability practices, students learn the principles of sustainability along with specific ways to implement them. Anyone seeking to understand and practice this approach will benefit from completion of the program. For some, the program can serve as a first step toward a more in-depth knowledge that may lead to a career. This certificate could help professionals to distinguish their business practices, community leaders to better understand future trends in

community planning and any student, educator or citizen who wants to make a positive difference in the environment.

CONTACT INFORMATION
Department of Physical and Environmental Sciences, Wubben Science 232, 970.248.1993.

TEACHER EDUCATION
SEE EDUCATION

TECHNOLOGY INTEGRATION

PROGRAMS OFFERED
- Technical Certificate
  - Technology Integration -- Network Technician
  - Technology Integration -- Telecommunication VoIP Technician
- Associate of Applied Science
  - Technology Integration -- Network/Telecommunication Technician

PROGRAM DESCRIPTION
Students enrolled in technology integration learn a multitude of skills to help prepare them to enter a variety of careers related to computer systems, computer system administration and networking, electronics and telecommunications engineering. Students begin the program studying basic core classes including communications, DC/AC circuitry, information technology (IT) hardware and software and Cisco Systems Network training. The technology integration coursework is aligned with national and international certifications including Cisco, A+/N+, CET and Convergent Technology Professional (CTP). Program content has been structured to give a basic education to all graduates entering this field. Emphasis has been placed on providing a common core of training for all students due to the convergence of the communication industries.

At the certificate level, students select an area of specialization from two choices – network technician or telecommunications VoIP technician. Network technician coursework teaches students valuable Internet technology skills, including networking, web design, IT essentials, cabling, Java and UNIX. The curriculum covers a broad range of topics from basics on how to build a network to how to build a website and more complex IT concepts such as applying advanced troubleshooting tools. Telecommunications Technician coursework includes networking fundamentals, telephony networking, installing and troubleshooting analog and digital phone lines and fundamental concepts, standards and practices that combine telephony and data networks into convergence networks. This program is designed to help prepare students to work in technical positions in communication fields.

At the associate level, students select an area of emphasis from three choices – telecommunications engineering, network technician, or certified electronics technician. The coursework in this Associate of Applied Science degree is aligned with national and international certifications including Cisco, A+/N+, CET and Convergent Technology Professional (CTP) and Voice over Internet Protocol (VoIP).

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY

BRUCE MANCHEE (1996), Assistant Technical Professor of Graphic Communications; B.A., University of Houston.

DANIEL MCCLINTOCK (2007), Technical Instructor of Media Technology; B.A., Mesa State College.

JOSEPH QUESENBERRY (2004), Technical Instructor of Applied Mathematics; B.S., Mesa State College.

JOHN SLUDER (1998), Assistant Technical Professor of Technology Integration.

JACK YON (2003), Assistant Technical Professor of Technology Integration; A.A.S., Mesa State College.

THEATRE

PROGRAMS OFFERED
- Bachelor of Arts
  - Theatre Arts
    - Theatre – Acting/Directing
    - Theatre – Dance
    - Theatre – Design/Technical Theatre
    - Theatre – Music Theatre
- Minors
  - Dance
  - Speech
  - Theatre

PROGRAM DESCRIPTION
The theatre program is constructed to help students meet the rigorous demands of a professional career in theatre or dance and to provide a strong artistic foundation and practical experience. Beginning with the first semester, students enroll in courses taught by academically and professionally experienced faculty. The acting/directing concentration is designed to give students a depth and breadth of acting skill and beginning directing skill including voice, movement period styles and Meisner. Acting opportunities in all of the department's productions are open to motivated and talented first-year students. Students are involved in numerous shows and this production work allows for a controlled, supervised application.

The dance concentration offers an array of dance styles, performance opportunities and travel. Modern, jazz, ballet and tap are offered from beginning to professional levels. Other courses include composition, improvisation, pedagogy, history, music analysis, healthy dancer and repertory performance.

The design/technical theatre concentration exposes students to multiple areas of the visual and technical aspects of theatre, including costume design, scenography, lighting design and theatre technology. The first year centers on courses that develop aesthetic sensitivity and technical proficiency. Subsequent years are devoted to specialized studio work in the student's chosen area of concentration. This foundation is supported by a series of skill related courses in drafting, drawing and rendering techniques, model making, projection aesthetics, lighting console operation and related technologies. Costume skills courses include costume construction and fitting, fabric painting and fabric dyeing.

The music theatre concentration represents one of the most unique programs offered in Colorado, stressing strong technical foundations in music, theatre and dance. This approach creates "triple threats" and enhances a young performer's potential for a career in musical theatre. To complement technique courses, students also participate in a wide variety of performance-related assignments.

Through the theatre minor, students may choose courses from a broad range of theatrical endeavor including: acting, scenery, costumes, theatre history, the teaching of theatre, arts management and dramatic literature. Students will also have the opportunity to gain hands-on experience in the creation of two mainstage shows during the CMU theatre season. Training afforded by the study of theatre is also attractive to many other professions, including teaching, human resources and law.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS

Students seeking admission as theatre majors must successfully audition for acceptance into the acting/directing, dance and music theatre concentrations. Admission to the University does not guarantee admission into one of these programs. Prospective theatre majors should consult the department's website or contact the department directly for information regarding audition dates and requirements. Prospective students interested in departmental scholarships must audition no later than March 1 of the year they seek admission.

Acting/directing majors are also required to take SPCH 112 (Voice and Diction) as their General Education Applied Studies requirement.

Students deficient in piano skills will be required to complete MUSA 130, Class Piano I and MUSA 131, Class Piano II as lower division elective courses.

Music theatre majors are required to take SPCH 112, Voice and Diction, to fulfill their General Education Applied Studies requirements.

CONTACT INFORMATION

Department of Theatre and Speech, Moss Performing Arts Center 113, 970-.248.1233.

FACULTY

DAVID COX (1981), Professor of Theatre; B.A., Mesa State College; M.F.A., University of Utah.

JEREMY FRANKLIN , Instructor of Music Theatre; B.A., Ouachita Baptist University.

JEANINE HOWE (2006), Assistant Professor of Theatre; B.F.A., Otterbein College; M.F.A., Carnegie-Mellon University.

PETER IVANOV (1995), Professor of Theatre; A.A., Manatee Community College; B.A., Western Illinois University; M.F.A, Florida State University.

MATTHEW LINDSTROM (2007), Assistant Professor of Dance; B.S. Ed, State University of New York- Geneseo; M.F.A., University of Iowa.

MELONIE BUCHANAN MURRAY (2005), Associate Professor of Dance; B.F.A., Friends University; M.F.A., University of California, Irvine.

TIMOTHY PINNOW (2010), Professor of Theatre and Department Head of Theatre; B.A., Luther College; M.F.A., University of Florida.

HEATHER WAGGONER (1998), Professor of Theatre; A.A., B.A., Indiana State University; M.F.A., Illinois State University.

TRANSPORTATION SERVICES

PROGRAMS OFFERED

Technical Certificate
- Transportation Services – Automotive Service
- Transportation Services – Diesel Mechanics

Associate of Applied Science
- Transportation Services – Automotive Technology
- Transportation Services – Diesel Technology

PROGRAM DESCRIPTION

The transportation services program covers the fundamentals of electronics, starters, ignition and charging systems; air conditioning, cooling and heating systems; safety; technical math; use of technical manuals; basic management skills; written and oral communication skills; and leadership. Advanced coursework includes an in-depth study of internal combustion engine disassembly, repair, reassembly, diagnosis and troubleshooting; suspension systems; and alignment and wheel balance. Students may choose from either an automotive technology emphasis or a diesel technology emphasis. The diesel technology emphasis concentrates on on-road trucks and light duty diesel-powered vehicles.

By successfully completing a technical certificate or an Associate of Applied Science in Transportation Services, students will be prepared for careers as automotive/diesel technicians, parts and service distributors, industrial sales representatives, service managers and business owners in the transportation services industry.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

SPECIAL REQUIREMENTS

Automotive technology covers general service and repair of vehicles in today's society. Courses will cover theory, applications, maintenance, repair and diagnosis of vehicle systems using hand, power and specialty tools and equipment. Diagnostics and computer systems receive special emphasis. WCCC is a satellite training center for Ford, Chrysler, Toyota and Subaru.

CONTACT INFORMATION

Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY

MICHAEL CARSTEN (2010), Technical Instructor of Transportation Services; Certificate, Southwest Texas Junior College.

JAMES GOETZ (1999), Technical Instructor of Transportation Services; A.A.S., Mesa State College.

GARY LOOFT (1985), Technical Instructor of Transportation Services.

KEITH WRIGHT (2006), Technical Instructor of Transportation Services.

VISUAL COMMUNICATIONS

PROGRAMS OFFERED
- Technical Certificate
  - Visual Communications -- Animation Technology
- Associate of Applied Science
  - Visual Communications -- Animation Technology Emphasis

PROGRAM DESCRIPTION
The animation technology coursework prepares students to work in digital 3-D animation modeling environments. 3D Digital Animation is all about the art of visual storytelling. Animation technology combines traditional artistic skills such as drawing, design and sculpture, with video, lighting and special effects training. This program covers the in-depth fundamentals of classical animation based on the 12 principles of animation, as well as character development and rigging. Students gain experience using industry standard software such as 3DS Max, Photoshop, Illustrator and After Effects to produce animations and portfolios. Students will gain expertise in object modeling and computer generated animation techniques to produce complex 3-D animation projects, as well as study life drawing, layout and design, computer illustration, storytelling and storyboarding. Graduates of this program will be prepared for entry-level jobs in the fields of movie animation, gaming animation and animation for commercials and presentations.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

FACULTY
MELANIE SNYDER (2003), Technical Instructor of Visual Communications; A.A.S., Mesa State College.

WATERSHED SCIENCE

PROGRAMS OFFERED
- Minor
  - Watershed Science

PROGRAM DESCRIPTION
The watershed science minor is an interdisciplinary program designed to serve the regional need for scientists with a strong background in water-related issues. It is a useful complement to environmental, physical and biological science majors, providing students in these fields with certification of focused coursework. Combined with the relevant bachelor of science degree, plus additional calculus and physics courses, the minor satisfies the federal government's requirements for qualification as a hydrologist. The proximity of Colorado Mesa University to the Colorado, Gunnison and Green Rivers, the drainages of the Colorado National Monument and the high arroyos create an ideal location for the study of watershed science.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Department of Physical and Environmental Sciences, Wubben Science 232, 970.248.1993.

WATER QUALITY MANAGEMENT

PROGRAMS OFFERED
- Associate of Applied Science
  - Water Quality Management

PROGRAM DESCRIPTION
The water quality management program prepares students for entry-level employment as technicians in the water processing industry. Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. The workers plan, test for quality and operate complex equipment to acquire and deliver high quality drinking water or process waste water for return to the environment. This program provides an understanding of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water and the systems management skills necessary to be a successful employee in the water processing industry. The industries interested in hiring graduates of this program are the public drinking water utilities and the wastewater treatment systems.

For a program sheet that describes the requirements, see a faculty advisor or go to coloradomesa.edu/academics.

CONTACT INFORMATION
Office of Student Services, WCCC, Bishop B102, 2508 Blichmann Avenue, 970.255.2670.

Center for Teacher Education (Licensure)

Contact: Center for Teacher Education, Colorado Mesa University, Academic Classroom Building, Suite 109, 970.248.1786

The Center for Teacher Education offers licensure programs in Elementary, Secondary, K-12 Education, and a Master of Arts in Education. Licensure to teach in public schools in the State of Colorado requires each teacher candidate to complete a baccalaureate degree including a sequence of professional education courses that include extensive field experience classroom placements. Teaching licensure coursework and experiences are taken through the Center for Teacher Education, while the content degree coursework is completed meeting the requirements of the discipline area, with both departments coordinating to assist teacher candidates to complete the program. Formal admission to the Center for Teacher Education is required of all students expecting to obtain a Colorado Educator License in any teaching field.

In order to complete all licensure requirements in a timely manner it is important that students contact the Center as soon as possible after enrolling at Colorado Mesa University. For information on the M.A. program, see the Graduate Programs section.

Elementary Education Licensure

(Colorado Teacher Licensure and Elementary Education Endorsement, Grades K through 6.)

Students should meet with a Center for Teacher Education advisor as soon as possible in order to obtain information specific to the elementary education licensure program. The components of the Colorado Mesa University elementary licensure program are as follows:

1. Academic Major: All elementary licensure students must complete the requirements for a Bachelor of Arts in Liberal Arts (Interdisciplinary Studies).
2. Formal admission to the Center for Teacher Education.
3. Professional Education Sequence for Elementary Teacher Licensure. (Coursework must be taken in the prescribed sequence; see table.)

Elementary Licensure Courses	Credit Hours	Field Hours
EDUC 211: Foundations of Education*	2	20
EDUC 341: Pedagogy and Assessment - Elementary	3	20
EDUC 343: Teaching to Diversity	3	20
EDUC 441: Methods of Teaching Language and Literacy	6	
EDUC 451: Methods of Teaching Mathematics	3	180
EDUC 461: Methods of Teaching Science & Social Studies	3	
EDUC 499C: Teaching Internship and Colloquia	12	600
Total Hours Required	**32**	**840**

*Can be taken before formal acceptance into CTE

Secondary Education Licensure

(Colorado Teacher Licensure and Secondary Education Endorsement, Grades 7 through 12)

Students should meet with a Center for Teacher Education advisor as soon as possible in order to obtain information specific to the secondary education licensure program. Following are the components of the Colorado Mesa University secondary licensure program:

1. Academic Major: All secondary licensure students must complete the requirements for a Bachelor of Arts or Science in one of the following academic disciplines: Biology, English, History, Mathematics, Physical Science (Geology), or Spanish.
2. Formal admission to the Center for Teacher Education.
3. Professional Education Sequence for Secondary Teacher Licensure. (Coursework must be taken in the prescribed sequence; see table.)

K-12 Education Licensure

(Colorado Teacher Licensure and K-12 Endorsement, Kindergarten through 12th Grade for endorsement in Art, Music or Kinesiology)

Students should meet with a Center for Teacher Education advisor as soon as possible in order to obtain information specific to the K-12 Education licensure program. Following are the components of the Colorado Mesa University K-12 teacher licensure program.

1. Academic Major: K-12 licensure students must complete the requirements for the Bachelor of Arts in Kinesiology or Music, or a Bachelor of Fine Arts in Art.
2. Formal admission to the Center for Teacher Education.
3. Professional Education Sequence for K-12 Teacher Licensure.** (Coursework must be taken in the prescribed sequence; see table.)

**Students seeking licensure in art must take EDUC 442 (4 credit hours and 60 field hours) in addition to the sequence below. Students seeking licensure in music are not required to take EDUC 343.

Secondary Licensure Courses	Credit Hours	Field Hours
EDUC 211: Foundations of Education*	2	20
EDUC 342: Pedagogy and Assessment - Secondary	3	20
EDUC 343: Teaching to Diversity	3	20
EDUC 442: Integrating Literacy Across the Curriculum - Secondary	4	60
EDUC 497 Content Methodology Practicum	3	80
EDUC 497a-e Methods of Teaching Secondary Discipline	2	
EDUC 499G: Teaching Internship and Colloquia	12	600
Total Hours Required	29	800

*Can be taken before formal acceptance into CTE

K-12 Licensure Courses	Credit Hours	Field Hours
EDUC 211: Foundations of Education*	2	20
EDUC 342: Pedagogy and Assessment - Secondary	3	20
EDUC 343: Teaching to Diversity	3	20
Content Area Methods Courses	Varies	140
EDUC 499d: Teaching Internship and Colloquia - Elementary	6	300
EDUC 499h: Teaching Internship and Colloquia - Secondary	6	300
Total Hours Required	Varies	800

*Can be taken before formal acceptance into CTE

Post-Baccalaureate Licensure Options

Conventional (Resident) Post-Baccalaureate Licensure (PBL)
Students holding a Bachelor's degree may apply for elementary, secondary (Biology, English, History, Mathematics, Physical Science (Geology), Spanish) or K-12 (Art, Kinesiology, and Music) licensure through the Center for Teacher Education. Depending on the student's undergraduate degree, leveling courses may be required. The Education program sequence may be completed within three semesters, including the final semester of student teaching; students with leveling courses may need additional semesters to complete all licensure requirements. Please see a Center for Teacher Education advisor for further information and for an evaluation of transcripts pertinent to the licensure path desired.

Intensive (Cohort) Post-Baccalaureate Licensure (PBL)
This program is available for elementary and secondary licensure, and may be delivered to students anywhere in the 14-county region served by Colorado Mesa University. Some students may need leveling courses to complete prior to their admission into the Intensive PBL program. The intensive cohort begins each year in June and runs for 12 months. Students begin with hybrid, face-to-face and on-line courses during the summer. Fall and spring semesters are spent on-site at a school in the region; during the academic year, students also participate in coursework and seminars both on-line and at the university. Please see an intensive PBL advisor for an evaluation of transcripts for elementary licensure.

All teacher licensure programs require passing the PLACE or PRAXIS II professional licensure exams prior to beginning the student teaching semester.

Master of Arts in Education

See the Graduate Programs section of this Catalog for details.

University-wide Academic Offerings

Academic Honors Program

Contact Information
Dr. Kristen Hague, Director of Honors Program, LHH 453, 970.248.1385

Program Description
As a member of the National Collegiate Honors Council, Colorado Mesa University's Honors Program offers highly-motivated students opportunities for enhanced intellectual stimulation and increased personal scholarship.

The Academic Honors Program is open to any currently-enrolled Colorado Mesa University student with a grade point average of 3.00 or above. Transfer students with a GPA of 3.00 or above from their previous educational institutions also are invited to apply.

To be considered for admission, students must submit a letter of application to the program director, describing how they will benefit from participation in the Program as well as the unique qualities they will bring to it. Two letters of recommendation must be sent to the director; one must be from a faculty member while the other may come either from a peer or another teacher. Exceptions to these requirements are made on a case-by-case basis by the program director. Once accepted into the Program, students are required to take a minimum of one honors course per academic year and maintain a GPA of 3.00 or above to continue.

There are two ways to participate in the Academic Honors Program. Students can choose to take 18 credits of honors program courses or to write an honors thesis. Honors students may choose to pursue one or both avenues. Honors courses provide challenging curricula, as they are small in size to facilitate active learning. The classes take advantage of the special interests and expertise of faculty members. Lower-division honors courses often fulfill general education requirements while upper-division honors courses are often interdisciplinary and open to all majors.

An honors thesis emphasizes independent thought and creativity and encourages mastery of research methods. It prepares students for the rigors of postgraduate or professional study and is completed under the supervision of faculty advisors. Completed theses are catalogued in the Colorado Mesa University Tomlinson Library Special Collections.

In addition to being part of a community of like-minded learners and extracurricular opportunities, Honors students have access to the Honors house and receive priority registration for classes each semester. The "Honors" course designation on a student's transcript signifies that the course is among the university's more challenging courses.

Students who earn an average of "B" or higher in 18 hours of honors program coursework (six of which must be from upper-division courses) and students who produce a thesis are recognized at graduation and on their transcripts for achieving Academic Honors. All program graduates earn medals to wear at graduation.

Freshman Year Initiative (F.Y.I.) Program

Contact Information
Admissions Office, Welcome Center
970.248.1458 -or-
Academic Affairs Office, LHH 209,
970.248.1881

Program Description
Colorado Mesa University offers first-year freshmen an opportunity to participate in a program designed specifically to enhance their first-year experience and ease the transition from high school to college. This program, Freshman Year Initiative (F. Y. I.), is offered to new freshmen prior to the start of each fall semester. For more information visit coloradmesa.edu/fyi.

The University's academic success course, SUPP 101, Introduction to Higher Education, is the primary focus of the F. Y. I. Program. SUPP 101 is a two-credit elective course designed to introduce students to the resources of the University and to enhance their study skills in order to be better prepared for the expectations of college-level work. SUPP 101 is also offered during the fall and spring semesters.

Sophomore Year Experience

Contact Information
Academic Affairs Office, LHH 209
970.248.1881

Program Description
Colorado Mesa University offers a course for sophomore-level students (who have completed 31-60 semester credit hours) to assist them in refining their academic effort toward a specific major and career goal that best fits their interests and abilities. This course aids students in making this critical decision early to promote selection of academic choices before enrolling in upper division courses. The Sophomore Year Experience course (SUPP 202) is a two-credit hour elective course offered during the January term and introduces students to career options, academic majors, résumé development, workplace skills, and self discovery through readings, class activities and off-campus opportunities such as community service projects and/or job shadowing.

International Student Exchange Program (ISEP)

Contact Information
Academic Affairs Office, LHH 209,
970.248.1881

Program Description
The International Student Exchange Program is a network of over 300 colleges and universities in 50 countries cooperating to provide university-level reciprocal exchanges.

ISEP is dedicated to offering access to international education opportunities for a diverse student population. ISEP's reciprocal exchange program allows students to pay Colorado Mesa University tuition, housing and fees, which are often much more affordable than those of the host university. ISEP students are fully immersed in an intercultural experience at their host institution and are able to explore the global opportunities of their chosen academic field. See ISEP section in Academic & Student Services, Offices and Activities section of the catalog for more information.

Undergraduate Developmental Courses

Contact Information
WCCC Office of Student Services,
Bishop B185, 970.255.2613

Program Description
In order to maximize student success, Colorado Mesa University provides placement testing and college prep courses so that students can be assured they are prepared to do the college-level work in their course of study. Students enroll in college prep courses in mathematics, reading and English. Numbers of such courses are below the 100 level (e.g., ENG 090, Basic Writing; MATH 091, Intermediate Algebra; READ 090, College Preparatory Reading). These courses are designed for students needing to strengthen their skills before entering college-level classes. Research indicates that students who need and take these courses do better in their college-level courses than they would have without them. They are not intended for transfer purposes, and will not fulfill degree requirements. Students are encouraged to consult with their advisors about the need to register into these classes.

Graduate Programs

General Admissions Policies & Procedures

Admission Criteria
Faculty in each degree program establish admission standards for the graduate programs, which often exceed the minimum standards set by Colorado Mesa University's Graduate Council. Applicants should consult the academic department head or faculty in the program(s) of interest for any additional admission requirements. Each academic department that offers a graduate program shall utilize the same minimum criteria for admission to the program.

Students wishing to take graduate courses not associated with a graduate program must still gain admission to CMU as a non-degree seeking graduate student. Each applicant must possess a baccalaureate degree from an accredited college or university, or equivalent certification. Faculty can make recommendations for admission of non-degree seeking students who do not meet the criteria to the Assistant Vice President for Academic Affairs.

An individual without a baccalaureate degree may be admitted to a master's degree program only if he or she is admitted to a combined program at CMU, such as the BS/MBA program.

Admission Procedures
To begin a graduate program at CMU, a student must possess a baccalaureate degree from an accredited institution. The undergraduate GPA requirement may differ based on individual program admission criteria. The following items must be submitted to the Admissions Office:

1. A completed Application for Admission to Graduate Programs and a $50 application fee. The fee is non-refundable and is not applicable toward tuition. An application form may be obtained by contacting the appropriate department.
2. Official transcripts of all college and university work must be sent directly to the Admissions Office by each institution attended. Transcripts received directly from students cannot be accepted except for advisement purposes. The transcripts of students who previously attended CMU shall be obtained from the Registrar's Office and shall not require a student request.
3. Scores, if required by the program, from either the Educational Testing Services for the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT), or from the Psychological Corporation for the Miller Analogies Test (MAT) must be provided. Students must request the scores be sent to the Admissions Office. See the specific degree program for required examination.
4. Score from an English language proficiency test (Test of English as a Foreign Language/TOEFL) for students whose native language is not English must be sent to the Admissions Office. A minimum score of 550 is required. See International Student Admission section.
5. Additional Requirements
   Academic departments offering graduate programs may admit a student based upon supplemental/alternate criteria that have been established by the major

department. If someone is recommended for admission who does not meet the graduate program standards, a rationale must be provided stating the factors which were considered in recommending the student: GPA in the discipline; letters of recommendation; samples of the student's work; GRE, MAT or GMAT scores; or other compelling factors. The Assistant Vice President for Academic Affairs shall review all recommendations for admission below the standard.

Applicants should check with individual programs regarding specific application and admission deadlines. After the program faculty make a final decision on admission, the program Department Head will notify the student of the outcome.

Admission Expiration
Admission to any graduate program shall remain valid for one semester excluding summer terms, following notification of acceptance into a program. If a student does not begin coursework during this period, the student shall be required to submit a new application with the appropriate processing fee and satisfy all admission requirements.

Conditional Admission
Conditional admission refers to applicants admitted pending the receipt of application requirements specified by either the Admissions Office and/or the major department. Applicants for admission may be accepted into a graduate program or with the provision that they complete deficiencies as noted in and by the dates specified in their acceptance letter. No student shall be permitted to register for an additional semester or receive financial aid unless the specified requirements are met during the first semester of the student's program.

International Student Admission
Students who are not United States citizens or permanent residents are considered international students. The CMU Admissions Office is responsible for issuing certificates of eligibility to attend CMU graduate school. To issue the appropriate certificate of eligibility, the Admissions Office must confirm that the student has the necessary English language proficiency, spoken and written, official evidence of satisfactory financial sponsorship, and payment of the first semester of health and repatriation insurance. International applicants must satisfy all requirements for admission that apply to U.S. citizens, as set forth above. In addition, international applicants are required to:

- Provide a professional transcript evaluation of all courses taken at a college/university outside the United States
- Furnish evidence of proficiency in English. A student is expected to have sufficient competency in English usage and speech skills that enable the student to progress satisfactorily in his or her program of study. Consequently, a student may be required to enroll in English and/or speech courses for remediation.
- Complete the Certification of Financial Responsibility form, provide evidence of sufficient financial resources and the exact amount expected from each source of income as required for students who need a student visa.
- Submit a Health Form to the CMU Office of Graduate Studies attesting to the good health and current immunizations of the applicant, with proof of major medical insurance coverage.

International students on F-1 or J-1 visas are not eligible to enroll as non-degree seeking students. Students on F-1 visas are required to register for a full-time course load.

Enrollment Prior to Admission
Students who have applied for admission to a graduate program at CMU are not permitted to enroll for more than nine credit hours in that graduate program as a non-degree seeking student. A hold shall be placed on the student's registration, and the student cannot continue to enroll until an admission decision has been reached. Thus, a student's application must be complete, and the program faculty must recommend either a regular admission or must deny admission by the end of the first semester, or nine semester hours, whichever is later.

Admission Appeals
An applicant who has been denied admission to a graduate program or who has received Conditional Admission may request reconsideration by writing to the Graduate Program Department Head within 30 days of the date of denial or notification of conditional admission status. Requests should include the reasons for requesting reconsideration, along with supporting materials and information that was not submitted with the original application. The Department Head will consult with the program faculty to resolve the appeal. The Department Head will act as final authority on the appeal process.

Academic Advisor
Each student shall be assigned an academic advisor upon acceptance into a graduate program by the appropriate department. The chief responsibility of the academic advisor is the planning, filing, and overseeing of the student's degree plan. The academic advisor also is responsible for assisting students with questions regarding their academic programs such as expectations for comprehensive examinations, thesis, and/or practicum, as specified by CMU, as well as professional advising and guidance for academic and professional endeavors. Any advisor-approved deviations from published program requirements or degree plans must be communicated to the Assistant Vice President for Academic Affairs, in writing, by the student in conjunction with the academic advisor.

Note: The importance of the academic advisor cannot be overstated. Advisement includes all aspects of students' present and future academic and professional planning. It is often the academic advisor who is able to help students conceptualize their academic program within the context of their own professional goals and aspirations.

Degree Plan
After acceptance into a graduate program, each student shall meet with his or her academic advisor and determine a degree plan that, when completed, shall lead to the attainment of the graduate degree. The degree plan shall be constructed before the student completes one semester or 9 credit hours of coursework following

the guidelines of CMU and the department. The respective degree plan shall list all courses, including those needed for any remediation and/or weaknesses deemed by the academic advisor, and practicum, thesis, and research requirements necessary to complete the specific degree. The degree plan shall have the signature of the student, the academic advisor, and the department head. Upon completion of the degree plan and all requirements, and upon the recommendation of the Faculty, the student shall be awarded the respective graduate degree.

Note: An addendum can be submitted to the degree plan provided the signatures of the student, the academic advisor, the department head, and the Assistant Vice President for Academic Affairs are secured approving the changes.

Residency Requirement
A minimum of 21 semester hours of coursework must be in residence for the master's degree and 42 semester hours for the doctoral degree at CMU. Requirements, however, may vary by academic department but the minimum is 70% of the total required semester hours.

Transfer Credit
Students can transfer up to nine credit hours from another accredited institution into their degree plan for a graduate degree provided they meet the general transfer policies of CMU and are approved by the academic advisor, the department head, and the Assistant Vice President for Academic Affairs.

- Transfer work is not used in the calculation of the graduate GPA.
- Transfer credit shall not be accepted if the work was used to obtain a degree or is included as part of another degree at any institution.
- Transfer work must be approved by the department and must be "A" or "B" work.
- Transfer credit cannot be used to meet any residency requirement.
- Transfer credit cannot be used to make up "C," "D," "F," or "U" grades received in required courses.
- Only courses graded by "letter" grades are transferable. Courses graded "S/U" or "P/F" are not transferable.
- All program requirements, including transfer work, must be completed within the time limits of the degree program. (See the section on Program Time Limits.)
- Transfer courses must be numbered as graduate level according to the course numbering system at the originating institution.
- Transfer courses must be from accredited institutions of higher education that offer equivalent level degrees.
- Graduate internship credit transferred from another institution will be considered for transfer credit. Requirements may vary by academic departments.
- Thesis credit, or credit for a master's project, does not receive transfer credit unless the thesis or research project is collaborative or joint effort between CMU and another accredited institution offering graduate programs and degrees.
- Students wishing to take one or more courses at another institution for graduate credit after beginning their graduate program of study at CMU must first consult their program graduate advisor. Permission may be granted following the procedure for transferring the credits earned at other institution as described above.
- Non-credit courses, including lifetime learning seminars and programs, or courses taken for continuing education will not receive transfer credit.

Students who wish to transfer credit must provide the Registrar's Office with complete documentation showing the course(s) to be transferred. The student then must present the complete transcript to the program advisor for approval or disapproval. Any transfer credits must be included on the degree plan. Courses requested for transfer must meet all criteria for credit transfer (see general transfer policies) to be approved by the department.

Students seeking transfer credit may also be asked to provide the published course description, and learning objectives, course requirements, including assignments and grading criteria, information on the course syllabus, textbook, etc. to the program advisor for consideration.

Degree Requirements

Course Level Requirements
Graduate courses are numbered 500 and above, and are used to satisfy the requirements of graduate programs. master's degree programs must have a minimum of 30 semester hours of courses numbered at 500 and above. Doctoral programs require a minimum of 60 semester hours. Programs may require additional hours, some of which may include 400-level courses, included on the degree plan.

Up to nine credit hours of course work completed as a non-degree student may be credited subsequently to a degree program with the approval of the graduate program faculty in consultation with the student's graduate advisor.

Note: Upon prior written permission of the instructor, the academic advisor, and the department head, a currently enrolled undergraduate student may take 500-level courses.

All graduate programs require a culminating activity in the form of a thesis, practicum, research project or capstone experience. In addition, some programs require a qualifying examination for advancement to candidacy approximately midway through the program and may require an oral defense at the termination of the program. Refer to the academic department for specific culminating degree requirements or if a qualifying examination is necessary. Information on research activities is presented below.

Dual-listed Courses
Upon approval by the Graduate Curriculum Committee, courses numbered 400-599 may be dual-listed allowing undergraduate and graduate students to enroll simultaneously. All

dual-listed courses may be offered independently at either the graduate or undergraduate level.

Note: At least 70 percent of a student's master's degree program must be in courses that are at the 500 level and not dual listed. All courses in the doctoral program must be at the 500 level or above.

Grades
Grades of "A," "B," "C," "D," and "F" are used and are computed in the GPA. Other marks used are "I," incomplete; "W," withdrawn; "NC," no credit; "P," passing. At the discretion of programs, "Pass/Fail" ("P/F") grades may be allowed for research, practicum, and thesis courses. "I," "W," "NC," and "P" grades are not counted in determining the GPA. Additionally, "P" grades for graduate level in-service courses are not applicable toward degree completion. Courses for which "C," "D," "F," "I," "W," or "NC" grades are awarded shall not count in graduate degree programs and shall not satisfy program deficiency requirements.

Incomplete ("I") grades are temporary grades given to a student only in an emergency case and at the discretion of the instructor.

At the end of the semester following the one in which an "I" is given, the "I" becomes the grade that is submitted by the instructor to the Registrar's Office. If the instructor does not submit a grade by the deadline for that semester, the grade becomes an "F." A grade of "I" given spring semester must be addressed by the end of the following fall term.

Extension of the time to complete work may be made in exceptional circumstances at the discretion of the instructor. A student with an "I" grade, however, may not change the "I" by enrolling in the same course another semester.

Grades can be changed, using the Special Grade Report, within the first two weeks of the semester following the receipt of the original grade by the Registrar's Office. However, students wishing to appeal an assigned grade must follow the academic appeals procedure and must initiate the appeals process within the semester following receipt of the contested grade.

GPA Requirement
Graduate students may repeat a maximum of six hours of graduate credit. No course may be repeated more than once. When a course is repeated, the last grade earned is computed into the student's GPA. The previously attempted courses and grades remain in the academic record but are not computed in the overall average. Transcripts will contain a statement indicating the grade point average has been re-computed and stating the basis for re-computation.

To remain in good graduate standing, a graduate student must maintain a GPA of 3.00 or better. If the cumulative graduate GPA falls below 3.00, a graduate student shall be placed on probation. Students have one semester to show progress toward good standing.

Student Termination
A student's degree program may be terminated for one or more of the following reasons:

- The student's cumulative GPA falls below 2.50
- The student is placed on probation a second time.
- The student fails to maintain the cumulative 3.0 GPA standard.
- The student fails the written and/or oral comprehensive examination or its approved equivalent.
- The student submits an unsatisfactory thesis, or other culminating requirement.
- The time limit established for the degree program expires before the degree requirements are completed.

Program Time Limits
The maximum time allowed for the completion of the master's degree is six calendar years beginning with the first semester of enrollment after admission has been granted. The student may request an extension of time by written request to the student's advisor, then to the student's graduate committee. Some programs may have shorter time limits.

Termination Appeal
A student may appeal termination from a program with a written petition to his/her program department head, within 6 weeks of official notification of termination.

Plagiarism
The following is the approved definition of plagiarism:

Plagiarism is the act of appropriating the written, artistic, or musical composition of another, or portions thereof; or the ideas, language, or symbols of same and passing them off as the product of one's own mind. Plagiarism includes not only the exact duplication of another's work but also the lifting of a substantial or essential portion thereof.

Regarding written work in particular, direct quotations, statements which are a result of paraphrasing or summarizing the work of another, and other information which is not considered common knowledge, must be cited or acknowledged, usually in the form of a footnote.

As long as a student adequately acknowledges his or her sources and as long as there is no reason to believe that the student has attempted to pose as the originator, the student shall not be charged with plagiarism even though the form of the acknowledgement may be unacceptable. However, students should be aware that most professors require certain forms of acknowledgment and some may evaluate a project on the basis of form.

Graduation Checklist

All graduate students must apply for graduation no later than February 15 for Fall graduates and September 15 for Spring graduates. The student has the responsibility for completing an Intent to Graduate form with the Registrar's Office.

If the student does not complete all requirements for the degree, and, therefore, does not graduate at the end of the proposed semester, the application shall be placed in the deferred file. The student must give written notice to the Registrar's Office when he or she wishes to appear again on the tentative list of graduates.

Graduation requirements are checked in accordance with one specific CMU catalog. The catalog used to meet graduation requirements is normally the one published for the academic year during which the student first enrolls after admission to CMU. The student must specify the catalog under which he or she wishes to be evaluated and must meet all requirements in that catalog. The student may select any subsequent catalog up to and including the current one, provided the student was in attendance at CMU during that academic year. However, a student may not choose to meet some requirements in one catalog and other requirements in another catalog.

CMU reserves the right to modify or change catalog provisions from time to time in order to fulfill the CMU Role and Mission or to accommodate circumstances beyond its control. Any such changes or modifications may be implemented as applicable to all or some students without prior notices, without obligation, and unless specified otherwise, are effective when made. CMU reserves the right to terminate or modify program requirements, content, and the sequence of program offerings from time to time for educational or financial reasons that it deems sufficient to warrant such actions.

Research Activities

Research is an important component of graduate studies. Specific research requirements and activities are defined by each degree program specifically.

Sponsored Programs
The Office of Sponsored Programs mission is to provide support to faculty and other University personnel in obtaining and administering external funds for research and other scholarly activities. Research at Colorado Mesa University includes explorations that lead to the discovery and dissemination of new knowledge, the development of new applications of existing knowledge, the development of new paradigms for teaching and learning, and/or the related creative activities in the fine arts.

The Office of Sponsored Programs is responsible for protecting university interests through the review of sponsored project proposals to non-university sources, contract and grant award review and negotiation, administration of award funds, and policy and procedure initiation and implementation.

Human Subjects and Animal Research
All research conducted by faculty, staff, or students that involves human subjects must be reviewed and approved by the Human Subjects Committee (also known as the Institutional Review Board or IRB). All research conducted by faculty, staff, or students that involves animals must be reviewed and approved by the Institutional Animal Care and Use Committee (IACUC). Graduate student research to fulfill course, thesis, or dissertation requirements is also subject to this regulation.

The Office of Sponsored Programs encourages all students to meet with their advisor if they intend to do research with humans or animals. Human subject research can include something as simple as an interview or survey. Failure to obtain approval by the IRB or IACUC before beginning a research project can be grounds for rejecting a thesis or dissertation and constitutes a serious breach of academic research ethics and federal law.

The policy, procedure, and forms required for human subject or animal research are available on the Sponsored Programs website at: coloradomesa.edu/faculty/sponsoredprograms. In addition, students may contact the Office of Sponsored Programs.

Research Misconduct
In accordance with federal regulations, the University has in place a Misconduct in Research Policy. This policy applies to the conduct of research and/or related activities, whether the research is funded or not and regardless of: the field of study; presentation and/or publication of results; process of applying for funds; expenditure of project funds; and fiscal reporting on the use of project funds. This policy applies to all faculty, students, administrators, and staff on all Colorado Mesa University campuses.

As defined in the Colorado Mesa University Misconduct in Research Policy, research misconduct includes fabrication, falsification, or plagiarism in proposing or performing research; abuse of confidentiality or other practices that seriously deviate from those commonly accepted within the academic community for proposing, conducting, and reporting on research; and plagiarism or abuse of confidentiality in reviewing proposals for a funding agency. The definition of research misconduct does not include honest error or differences of opinion or interpretations or judgments of data. The definition contained in this policy is not intended to override or contradict provisions of other regulations or policies, in particular those policies governing human research subjects and animal welfare. A finding of substantive violation of specific policies in these areas will also be considered misconduct under this policy. A copy of this policy may be found at coloradomesa.edu/sponsoredprograms/policies.html.

Master of Business Administration

Colorado Mesa University began offering the first of its graduate level programs—the Master of Business Administration (MBA)—in 1997-98. The MBA program at Colorado Mesa University is administered by the Department of Business. The department is guided on academic policy matters by the Office of Graduate Studies..

The Colorado Mesa University MBA is a challenging program designed to prepare graduates for the changing business world. The degree is awarded after successful completion of 36 semester hours of rigorous study. The program is designed to provide the student with a broad background in business while allowing the student to focus on a specified area of study, if desired. To this end, students acquire knowledge of management operations; an appreciation of the interrelationships involved; an understanding of the economic, political and social environment in which businesses function; and behavioral skills that are essential in the manager's role in the implementation of business decisions. The MBA program endeavors to provide an atmosphere conducive to the development of each student's ability to think in a creative manner. The program makes extensive use of lectures, seminars, group projects, case studies and independent research.

The Colorado Mesa University MBA has two basic components: a 24 hour core and a 12 hour general elective requirement, which includes a research component. The program is open to all baccalaureate holding applicants who can demonstrate through academics an appropriate background in the core requirements that include work in statistics, computer literacy, management, finance, marketing, and accounting regardless of the undergraduate field of study. Students without this background or adequate depth in this background will be required to complete leveling requirements.

Electives include such courses as global business, entrepreneurship, managerial economics and management information systems. Electives also provide the student with the opportunity to develop and present an original research project or practicum.

Admission to the MBA Program
See Department specific requirements.

Candidates not meeting all of the above requirements may be admitted under conditional status.

MBA for Those Without a Business Degree
While the MBA program is designed for the student having earned a bachelor's degree in a business related field, the opportunity for study is available for the non-business degree holder. For these students, a series of leveling courses will be identified.

Program of Study

Required Courses:
ACCT 500 Managerial Accounting
BUGB 500 Advanced Business Law and Ethics
FINA 500 Financial Strategy
MANG 500 Advanced Management Theory
MANG 501 Operations Management
MANG 510 Organizational Theory and Behavior
MANG 590 Business Strategy
MARK 500 Marketing Strategy

Elective Courses:
BUGB 510 Global Business
BUGB 520 Seminar in Current Business Topics
CISB 500 Management Information Systems
CISB 560 Electronic Commerce Systems
ECON 530 Managerial Economics
KINE 500 Facility and Equipment Management in Sport and Fitness
KINE 510 Event and Program Management in Sport and Fitness
MANG 520 Human Resource Management
MANG 540 Advanced Quantitative Methods
MANG 550 Entrepreneurship

If the seminar topics are different, BUGB 520 may be taken for credit up to three times.

Research Courses:
BUGB 530 Research Design
BUGB 590 Thesis (6 hours) or
BUGB 595 Research Practicum

Students are required to meet with their advisor and submit information by the appropriate deadlines.

All graduate courses for the MBA are listed in the Course Descriptions section of this catalog in the prefix areas of Accounting (ACCT), Business Administration (BUGB), Computer Information Systems in Business (CISB), Economics (ECON), Finance (FINA), Kinesiology (formerly Human Performance and Wellness) (KINE), Management (MANG), and Marketing (MARK).

Leveling Courses
If the prospective MBA student does not have an undergraduate business degree, the student may need to complete the following Colorado Mesa University courses or equivalent. Equivalent courses are determined by the applicant's graduate committee.

ACCT 201	Principles of Financial Accounting
CISB 101	Business Information Technology
FINA 301	Managerial Finance
MANG 201	Principles of Management
MARK 231	Principles of Marketing
STAT 200	Probability and Statistics

General Policies
Up to nine credit hours may be taken in a "non-degree seeking student" status and later applied to the program requirements. Up to nine credit hours of applicable courses, with a grade of "B" or higher, may be transferred from a regionally accredited institution into the program. Additional information may be found in the Transfer Credit section.

Master of Arts in Education

The degree is designed using the cohort model with a group of participants completing all requirements in a three-semester cycle. The current cognate areas are Educational Leadership (EDLD) and English for Speakers of Other Languages (ESOL).

The Master of Arts in Education is designed as a dynamic program to meet the needs of education professionals as they gain additional expertise in one or more state endorsement areas. The degree is awarded after successful

completion of 35-36 semester hours of college courses work aligned with site based internship experiences. The program is designed to provide the student with eleven hours of core knowledge in educational design, theory, assessment, technology and research. The additional hours allow the student to focus on a particular endorsement area.

Admission to the program follows the stated guidelines for graduate admission procedures indicated in this catalog. The application packet (available online (coloradomesa.edu/teachered/masters.html) lists additional admissions materials to be supplied.

Capstone
The Master of Arts in Education requires the successful completion of the capstone competency: either a capstone presentation or competency examination. See individual program information for details.

Program of Study

Core Courses:
EDUC 500 Culture and Pedagogy
EDUC 501 Educational Technology
EDUC 502 Theory, Design, and Assessment of Curriculum
EDUC 503 Introduction to Educational Research

ESOL Cognate Courses:
EDUC 504 Methods of Teaching English as a Second Language
EDUC 510 Strategies in the Content Area
EDUC 535 Internship in ESOL: K-6
ENGL 543 Linguistic Diversity and Multicultural Literacies
EDUC 545 Internship in ESOL: 7-12
EDUC 554 Theories of Second Language Acquisition
EDUC 555 Multicultural Narratives
EDUC 556 Assessment in English as a Second Language
EDLD 504 Best Practices in Curriculum, Assessment, Instruction

EDLD Cognate Courses:
EDLD 505 Reform and Organizational Change in Education
EDLD 515 Dynamic School Leadership in a Democratic Society: Introduction to School Administration
EDLD 520 Principalship I & II
EDLD 530 Legal Aspects of School Administration: Educational Policy and the Law
EDLD 531 School Finance & Budgeting
EDLD 535 Internship in EDLD: K-6
EDLD 545 Internship in EDLD: 7-12
EDLD 540 School Improvement and Accountability
EDLD 542 Instructional Supervision and Management/HR
EDLD 544 Strategies in School Improvement

Up to nine credit hours may be taken in a non-degree seeking student status and later applied to program requirements. Up to nine credit hours of applicable courses, with a grade of B or higher, may be transferred from a regionally accredited institution into the program. Applicable courses for transfer must be approved by the CTE Graduate Committee to meet program requirements.

Course Descriptions

The course descriptions in this catalog indicate the content of the course and prerequisites when applicable. Courses are listed in alphabetical order with a four-letter prefix code, followed by number and title. The number in parentheses at the end of the course title indicates the credit granted, in terms of semester hours, for each course. Generally, the number of semester hours is the number of times a class will meet each week. Exceptions are noted in individual course descriptions and , in most cases, prerequisites and/or corequisites stated. The course number after the prefix indicates the college year in which the courses should ordinarily be taken.

100-199.....Freshman year
200-299.....Sophomore year
300-399.....Junior year
400-499.....Senior year

Courses numbered 01-099 are preparatory in nature, not intended for transfer purposes, and will not usually fulfill degree requirements.

For course equivalencies between the Colorado Community College System and Colorado Mesa University/WCCC classes, check the Common Course Crosswalk listed on the current program sheet.

Colorado Mesa University reserves the right to withdraw any program or course which is not justified due to lack of enrollment or availability of instructor. Other courses may be added if there is sufficient demand. Certain courses are only offered during the fall or spring semesters, or may be available only in alternating years. It is the student's responsibility to meet with their advisor and check the two-year course matrix on the Colorado Mesa University website for course availability. Learn more at coloradomesa.edu/academics.

ACCOUNTING (ACCT)

ACCT 201 Principles of Financial Accounting (3)
A basic course that introduces the concepts of bookkeeping, generally accepted accounting principles, and financial statements.

ACCT 202 Principles of Managerial Accounting (3)
A basic course that introduces the use of accounting information in managerial decision making, control, and planning. Prerequisites: ACCT 201, and CISB 101 or CISB 205.

ACCT 311 Advanced Managerial Accounting (3)
An advanced course primarily for non-accounting majors that provides in-depth coverage on the applications of accounting information in decision-making, organization, control and planning. Prerequisites: ACCT 202, and CISB 101 or CISB 205.

ACCT 321 Intermediate Accounting I (5)
Development of a foundational understanding of Generally Accepted Accounting Principles and their application to external financial statements. Prerequisite: ACCT 201.

ACCT 322 Intermediate Accounting II (4)
Continuation of ACCT 321. Prerequisite: ACCT 321.

ACCT 331 Cost Accounting (3)
Costs and their relationship to planning, controlling, inventory valuation, and decision making. Prerequisite: ACCT 202, CISB 205.

ACCT 350 Ethics for Accounting Professionals (3)
The field of ethics as applied to the accounting and finance professions. Ethical standards of the profession, accounting and finance scandals in recent history, and methods to overcome ethical dilemmas encountered as professionals. Prerequisite: ACCT 321. Corequisite: ACCT 322.

ACCT 392 Accounting Information Systems (3)
A study of the concepts and design of the Accounting Information System with emphasis on the internal control structures, requirements, and professional standards. Prerequisites: ACCT 322; CISB 205.

ACCT 393 Cooperative Education (3-12)
Cooperative Education provides students an opportunity to put their education to practical use in the workplace under the joint supervision of an employer participating in the Cooperative Education program and a faculty member designated by the institution. (See "Cooperative Education" in this catalog).

ACCT 395 Independent Study (1-3)

ACCT 396 Topics (1-3)

ACCT 401 Governmental Accounting (3)
Accounting principles as they apply to governmental units. Prerequisite: ACCT 322.

ACCT 402 Advanced Accounting (3)
The course provides coverage of consolidated financial statements, partnership accounting, bankruptcy, estates, trusts, and international operations. Prerequisite: ACCT 322.

ACCT 411 Auditing I (3)
This course provides coverage of the scope and purposes of the work of a certified public accountant, including study of the theory of auditing, professional ethics, legal liability of the auditor, and internal control. Prerequisites: ACCT 322, STAT 200 or 214, and senior standing.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

ACCT 412 Auditing II (3)
Continuation of ACCT 411. This course provides coverage of the application of auditing theory to financial statements, including examination of the audit programs, procedures, and work papers used in each phase of an audit. Prerequisite: ACCT 411.

ACCT 441 Individual Income Tax (4)
Individual Income Tax designed for B.S. in Accounting degree candidates. Covers the Federal Income Tax Law in-depth as it relates to individual taxpayers. Introduction to various tax reference resources that deal with the subject. Limited enrollment. Prerequisite: ACCT 322, senior standing.

ACCT 442 Advanced Tax and Tax Research (5)
Federal Income Tax Law for corporations, partnerships, estates, trusts, and gifts. In-depth experience with tax research resources, research methodologies and related projects. The student will be required to participate in the Volunteer Income Tax Assistance (VITA) program in order to acquire practical experience in communication with taxpayers and preparation of tax returns. Prerequisite: ACCT 441.

ACCT 493 Cooperative Education (3-12)
See description of ACCT 393.

ACCT 495 Independent Study (1-3)

ACCT 496 Topics (1-3)

ACCT 500 Managerial Accounting (3)
Provides students with an understanding of management information systems which are used in the decision-making process. The class is designed with a "hands-on" approach. It will encourage student participation and interaction through the use of computer projects.

ANTHROPOLOGY (ANTH)

✓ **ANTH 201 Cultural Anthropology-GTSS3 (3)**
Basic concepts of cultural anthropology including the theoretical perspectives, social and political institutions, ceremonies, and linguistics. Cultural change and cultural destruction are also included.

✓ **ANTH 222 World Prehistory-GTSS3 (3)**
Basic theory and method will be described. Prehistory includes human origins, Stone Age hunters, domestication of animals, the rise of agriculture and the emergence of civilizations.

ANTH 296 Topics (1-3)

ANTH 301 North American Indian (3)
Cultural systems of the North American Indian including ideology, revitalization, political history, and contemporary conditions. Case studies of selected groups will be emphasized. Prerequisites: ANTH 201.

ANTH 310 Ethnographic Methods (3)
Theoretical, descriptive, and instructive aspects of qualitative social research including theoretical perspectives, field journalism, participant observation, interviewing, ethics, and research design. Students will conduct and discuss brief fieldwork in the community. Prerequisite: ANTH 201.

ANTH 320 U.S. as a Foreign Culture (3)
Study of the U.S. from an outsider's perspective, understanding and intellectually building upon foreign views of the U.S. Students will learn how to objectify and analyze U.S. culture in its many forms. Prerequisites: ANTH 201.

ANTH 330 Religion and Culture (3)
Comparison of organized beliefs in the spiritual world and their relationship to the cultures in which they are practiced. Several theoretical perspectives will be emphasized. Prerequisite: ANTH 201.

ANTH 340 Ethnopsychology (3)
Study of indigenous theories about emotions and cognition and a functionalist analysis relating traditional healing methods to the social and psychological aspects of illness. Prerequisites: ANTH 201 and PSYC 150.

ANTH 345 Medical Anthropology (3)
Exploration of the various ways anthropology and medicine intersect (e.g., the cultural construction of disease, disease environment, cure, and health) and the practical applications of such knowledge. Prerequisite: ANTH 201.

ANTH 350 Regional Study (3)
Specific geographical region will be described. History, politics, economics, ideologies, cultural traditions, and contemporary conditions will be discussed. Prerequisites: ANTH 201.

ANTH 360 Gender and Culture (3)
Study of culturally ascribed roles based on sex, their symbolic basis, and the functionalist and conflict theory explanations for the forces giving rise to them. Prerequisites: ANTH 201.

ANTH 370 Applied Anthropology (3)
Inquiry into the ways anthropology might be applied to practical ends; exploring how a degree in anthropology can lead to a career in anthropology or at least an anthropologically-informed career. Prerequisite: ANTH 201.

ANTH 380 Language and Culture (3)
Social, psychological, and epistemological aspects of language. Critical assessment of the use of language in writing about anthropology. Prerequisites: ANTH 201.

ANTH 390 World Ethnicity and Nationalism (3)
Inquiry into the concepts of ethnicity and nationalism - how they evolved, to what purposes they have been applied, and how they have figured and continue to figure in several contexts around the world. Prerequisite: ANTH 201.

ANTH 395 Independent Study (1-3)

ANTH 396 Topics (1-3)

ANTH 410 World Cultures (3)
Study of band, tribal, chiefdom, and state societies from a variety of theoretical perspectives, also includes the study of contemporary cultural change in non-state societies. Prerequisites: ANTH 201.

ANTH 495 Independent Study (1-4)

ANTH 496 Topics (1-3)

ARCHAEOLOGY (ARKE)

ARKE 225 Introduction to North American Archaeology (3)
Survey of archaeology in North America, highlighting the Mississippi Mound builders, eastern cultures, Aztecs, and Maya. Development of archaeological

theory and its application to the study of prehistoric sites in North America. Work with archaeological material curated at the Museum of Western Colorado.

ARKE 325 Geoarchaeology (3)
Introduction of aspects of geological science used to solve archaeological problems. Survey of the sub-fields of geology pertinent to archaeological data recovery, site formation processes, and site interpretation in the Mountain west. Includes aspects of physiography, geomorphology, Quaternary stratigraphy, geochemistry and mineralogy, and lithic materials identification. Prerequisites: GEOL 111 and GEOL 111L.

ARKE 350 Southwest Archaeology (3)
Prehistory and cultural background of the southwestern United States. Archaeological sites of Colorado, Utah, Arizona and New Mexico highlighted. Introduction to cultures inhabiting these areas for the last 5,000 years with emphasis on the Anasazi, Fremont, Uto-Aztecan and Athabaskan groups. Prerequisite: ARKE 225.

ARKE 410 Field Methods in Archaeology (3)
ARKE 410L Field Methods in Archaeology Laboratory (2)
Overview of contemporary methods of archaeological survey, site recordation, and excavation techniques. Artifact collection, interpretation, and analysis presented as is record keeping, artifact conservation, and curation. Topics include maps and mapping, geographic information systems (GIS), Global Positioning System (GPS), field and specimen photography, recovery and analysis of supplemental materials (macrobotanical, pollen, chronometric, etc.). Prerequisites: ARKE 225 and ARKE 350.

ART: ART EDUCATION (ARTD)

ARTD 196 Topics: (1-3)

ARTD 296 Topics: (1-3)

ARTD 395 Independent Study (1-3)

ARTD 396 Topics: (1-3)

ARTD 410 Elementary Art Education Methods (3)
Explorations of theory, methods and materials for teaching art, kindergarten through sixth grade. Required for K-6 elementary teachers and K-12 Art Education majors. Studio applications, aesthetics, creative problem solving, art history, lesson and unit plans explored. Prerequisites: EDUC 211, EDUC 343, and EDUC 341 or 342, all with a grade of "B" or higher.

ARTD 410L Field/Studio Experience in Elementary Art Education Methods (1)
Required for K-12 art education majors only. Forty field hours in local public schools. Co-requisite to ARTD 410. Prerequisites: EDUC 211, EDUC 342, and EDUC 343.

ARTD 412 Secondary Art Education Methods (4)
Seminar that covers theory, methods and materials for teaching art in middle and high schools, grades 7-12. Applies options in teaching through embedded field hours. Development of a year-long art curriculum. Required for K-12 Art Education majors. Prerequisites: EDUC 211, EDUC 342, and EDUC 343, all with a grade of "B" or higher.

ARTD 414 Biennial Art Education Symposium (1-3)
Explorations of current issues in art education.

ARTD 414A Biennial Art Education Symposium (1)
ARTD 414B Biennial Art Education Symposium (1)
ARTD 414C Biennial Art Education Symposium (1)
Explorations of current issues in art education.

ARTD 495 Independent Study (1-3)

ARTD 496 Topics: (1-3)

ARTD 596 Topics: (0.5-3)

ART: GENERAL (ARTE)

✓ **ARTE 101 Two-Dimensional Design-GTAH1 (3)**
The principles of form and function in two-dimensional design with emphasis on color theory and use. Two hours of lecture and two hours of studio per week.

✓ **ARTE 102 Three-Dimensional Design-GTAH1 (3)**
The principles of form and function in three-dimensional design with emphasis on color theory and use. Two hours of lecture and two hours of studio per week.

✓ **ARTE 115 Art Appreciation-GTAH1 (3)**
Some of the hows, whys, and whos of painting, sculpture, and functional design in selected periods and places. This course is intended for non-art majors. Art majors should take ARTE 118 instead.

✓ **ARTE 118 History of Art, Prehistory to Renaissance-GTAH1 (3)**
Survey of the development of art from Prehistory up to the emergence of the Renaissance. Course focus will be the study of major monuments to gain an understanding of the important factors that defined the artistic production of each civilization and historic period.

✓ **ARTE 119 History of Art, Renaissance to Present-GTAH1 (3)**
Survey of the development of art from the Renaissance to the late 20th century. Course focus will be the study of major monuments to gain an understanding of the important factors that defined the artistic production of different historic periods.

ARTE 196 Topics: (1-3)

ARTE 296 Topics (1-3)

ARTE 300 Professional Practices (3)
Examination of the current state of the studio arts and various career options through research, discussions, and practical application in the coordination of the annual all campus art exhibit. Includes development and presentation of a professional portfolio package including artist statement and resume. Prerequisite: junior or senior standing.

ARTE 302 Native Arts of North America (3)
Exploration and examination of the art of tribal peoples of North America, with special attention to the peoples' view of art and beauty as integral to life. Students will investigate the blending of

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

oral history and art, as well as hands-on artistic techniques. Prerequisites: ARTE 115 or ARTE 118 or ANTH 201 or HIST 131 or HIST 132, or consent of instructor.

ARTE 395 Independent Study (1-3)

ARTE 396 Topics (1-3)

ARTE 396A Topics (1-3)

ARTE 396S Topics (1-3)

ARTE 413 Fearless Creativity (3)
Experimental applications of drawing, painting, paper collage, printmaking, photography, basic sculpture, and fibers. Designed for anyone desiring a safe environment for creative expression.

ARTE 413A Fearless Creativity (1)
Experimental applications of drawing and paper collage. Designed for anyone desiring a safe environment for creative expression.

ARTE 413B Fearless Creativity (1)
Experimental applications of painting and basic printmaking. Designed for anyone desiring a safe environment for creative expression.

ARTE 413C Fearless Creativity (1)
Experimental applications of fibers and basic sculpture. Designed for anyone desiring a safe environment for creative expression.

ARTE 495 Independent Study (1-3)

ARTE 496 Topics (1-3)

ARTE 498 Studio Assistant and Teaching Aid (3)
Designed for the senior level artist. Gain experience in teaching by preparing demonstrations and performing in-studio maintenance of studio equipment. Taught in conjunction with 200-level classes and requires instructor permission. Prerequisite: Consent of instructor.

ARTE 499 Internship (3)
Placement in a gallery, art center or museum setting (excluding the Johnson Gallery). The student is expected to complete 135 clock hours. Prerequisites: ARTE 300.

ARTE 596 Topics (1-3)

ART: GRAPHIC DESIGN (ARTG)

ARTG 196 Topics: (1-3)

ARTG 201 Adobe Illustrator (2)
Introduction. Techniques for using vector-based drawing program explored through exercises to learn the application and features as used by graphic designers for print and electronic media.

ARTG 202 Adobe Photoshop (2)
Introduction. Techniques for using raster-based software for print, video, web and other multi-media applications.

ARTG 203 Adobe InDesign (2)
Techniques for using the program explored. Exercises to learn the application and features as used by graphic designers and professional publishers.

ARTG 215 Graphic Design I (3)
Basic use and operation of graphics computer, exclusively Macintosh, with focus on terminology, hardware, peripheral devices, system management, and software (systems and applications). Including establishment of operation files, job information files, information capture and placement, and maintenance. Prerequisites: ARTE 101 and 102, and ARTS 151. Corequisite: ARTG 221.

ARTG 221 Graphic Design II (3)
Principles of design and layout techniques, including thumbnail, rough, and comprehensive layouts: work planning and preparation of artwork with focus on computer and hand generated images. Prerequisites: ARTE 101, ARTE 102, ARTS 151. Corequisite: ARTG 215.

ARTG 225 Introduction to Animation (3)
Survey of animation history, current trends, principles, practice, tools, techniques, software and hardware. Additional focus on story development, storyboarding, traditional drawing skills, and creation of basic animations. Prerequisite: ARTG 215 with grade of "B" or higher.

ARTG 296 Topics: (1-3)

ARTG 301 Computer Illustration (3)
Advanced creation of digital imagery focusing on visual content and composition in print and multi-media applications. Prerequisites: ARTG 215 and ARTG 221.

ARTG 320 Letterforms and Typography (3)
Study of letterforms and typography including terminology, type style identification and design, use of type within a design, composition, copyfitting, and basic principles of pattern and spatial design. Prerequisite: ARTG 221.

ARTG 324 Animation I (3)
Exploration of 2D computer animation software, techniques and production, development of storylines, storyboards, and animation production processes. Continued development of traditional drawing skills. Prerequisite: ARTG 221 with grade of "B" or higher.

ARTG 325 Animation II (3)
Exploration of 3D computer animation software, techniques and production processes. Emphasis on character modeling and development, motion, timing and traditional drawing skills. Prerequisite: ARTG 324 with grade of "B" or higher.

ARTG 337 Illustration and Storyboard (3)
Traditional drawing skills used in illustration and storyboarding to communicate ideas with visual images. Emphasis on applying effective composition, design, color and conceptualization to creative and expressive imagery. Particular focus on the production storyboard as art form, demonstrating aesthetic and style. Prerequisites: ARTG 221 and ARTS 251.

ARTG 338 Advertising Design I (3)
Exploration of the various graphic communication applications common to the promotion of products and services, including brochures, posters, mailers, package design, and other items designed for print. Emphasis will be placed on design processes, prepress print production and the history of advertising. Prerequisite: ARTG 221, 301, and 320.

ARTG 339 Advertising Design (3)
Advanced exploration of the various graphic communication applications common to the promotion of products

and services, including brochures, posters, mailers, package design, and other items designed for print. Emphasis will be placed on design processes, prepress print production and the history of advertising. Prerequisites: ARTG 301, 320, and 338.

ARTG 395 Independent Study (1-3)

ARTG 396 Topics: (1-3)

ARTG 405 Web Site Design (3)
Creation and development of well-designed and functional Web pages/sites to accommodate clients' promotional and business needs. Topics covered include software, creation of graphics, publishing, design theory for the Web, typography and promotion. Prerequisites: ARTG 215, ARTG 221, ARTG 301, ARTG 302, and ARTG 338, or consent of the instructor.

ARTG 406 Advanced Web Site Design (3)
Investigation, analysis and application of emerging Web Site design trends. Prerequisites: ARTG 215, ARTG 221, ARTG 301, ARTG 320, ARTG 324, and ARTG 405.

ARTG 424 Animation Studio I (3)
2D and 3D computer animation. Emphasis on advanced character modeling and development, lighting, shading, textures, rendering, scene building, and sound editing and Web animation. Traditional drawing emphasis. Prerequisite: ARTG 325 with grade of "B" or higher.

ARTG 425 Animation Studio II (3)
Advanced 2D and 3D animation. Includes complex character development and modeling, rendering techniques, distribution, copyright and publishing issues, DVD production, and animation portfolio development. Prerequisite: ARTG 242 with a grade of "B" or higher.

ARTG 437 Illustration and Storyboard II (3)
Advanced illustration and storyboarding development focusing on concept, content, materials and techniques. Emphasis on individual artistic style and personal visual communication perception. Prerequisite: ARTG 337 and instructor permission.

ARTG 450 Corporate Design (3)
Exploration of visual communication and symbols designed specifically for corporate and organization identity. Examples include logos, logotypes, business stationery, forms, annual reports, advertising and signage. Emphasis will be placed on the process of design, prepress print production and the history of corporate design. Prerequisite: ARTG 338.

ARTG 493 Portfolio Construction (3)
Assigned designed problems and development of items for assembly into a portfolio to be used as employment material. Prerequisite: ARTG 337, ARTG 338, ARTG 450.

ARTG 495 Independent Study (1-3)

ARTG 496 Topics: (1-3)

ARTG 499 Internship (3)
Placement in an agency or corporate department to provide an enhanced transition from the classroom to the work setting through first-hand experience. The student is expected to complete 135 clock hours. Prerequisite: ARTG 450.

ART: ART HISTORY (ARTH)

ARTH 196 Topics: (1-3)

ARTH 296 Topics: (1-3)

ARTH 315 Nineteenth-Century Art (3)
Comprehensive survey of the major art movements of the nineteenth century: Neoclassicism, Romanticism, Academic Art, the invention of photography, Realism, Impressionism, Post-Impressionism, Symbolism, and Art Nouveau. Prerequisites: ARTE 118 and ARTE 119.

ARTH 316 20th Century Art to 1950 (3)
Foundations of modernism from Post-Impressionism through Surrealism through the study of major artists and art works and related manifestations including important theories of modern art, the modernist transformation of design aesthetics, and social and political reactions to modern art. Prerequisites: ARTE 118 and ARTE 119.

ARTH 317 American Art History (3)
Examination of art and artists of America from colonial times up to the present with attention to the role of the artist and the visual arts in American social experiment. Prerequisites: ARTE 118 and ARTE 119.

ARTH 318 Development of Contemporary Art (3)
Examination of art produced within the past 40 years with attention to the plurality of successful styles and subjects pursued by artists, the increasingly important role of the art critic and the contemporary art museum in interpreting trends, the impact of the commercial art market on the production and dissemination of contemporary art, and various experimental art forms developed by artists to counteract the influence of critics, institutions and commercial interests. Prerequisites: ARTE 118 and ARTE 119.

ARTH 319 Art of the American West (3)
Examination of the artist's encounter with the West as both real and imagined experience from the works of expeditionary artists of the early 19th century to recent large scale "earthworks" that transform the Western landscape. Emphasis on the works of the major 19th century protagonists of the heroic Western image as well as the important role of Santa Fe and other Western locations in the development of a Western art tradition. Prerequisites: ARTE 118 and ARTE 119.

ARTH 320 Symbolism to Surrealism: Art & the Subconscious (3)
Examination of artistic fascination with symbolic meaning and suggestive content as a vehicle to explore myth and the subconscious from the late 19th century through the 20th century. Focus on how symbolic meaning is conveyed through visual content and theories about the role of myth and subconscious imagery in artistic experience. Prerequisites: ARTE 118, ARTE 119, and ARTH 315.

ARTH 321 Gothic and Northern Renaissance Art and Architecture (3)
Architectural accomplishments of Gothic style and the revival and development of

painting and sculpture from the Gothic period through the Renaissance in the North. Includes invention of oil painting, growth of realism and direct observation of the real world in art, and effects of the Protestant Reformation on artistic styles and content. Prerequisites: ARTE 118 and ARTE 119.

ARTH 322 Expressionism in 20th Century Art (3)
Expressionism in Germany during the early 20th century and its recurrence in the latter half of the 20th century. Visual language of expressionism as a distinctive style and the artistic goals of Expressionism that define a specific role for the artist in society. Prerequisites: ARTE 118, ARTE 119, and ARTH 316.

ARTH 323 History of Modern Architecture (3)
Modern architecture as a form of applied artistic expression. Examination of major stylistic developments in architecture and applied design from 19th century historically-inspired styles through 20th century innovations that transformed traditions of architectural design and the role of the architect in modern society. Prerequisites: ARTE 118 and ARTE 119, and ARTH 315 and ARTH 316.

ARTH 395 Independent Study (1-3)

ARTH 396 Topics: (1-3)

ARTH 400 Criticism and Research: Theory and Method (3)
Introduction to the development of art history as a discipline and how art historians evaluate and interpret complex issues of style, form, content and theory in visual art. Structured discussion of historical art works studied in other upper division art history courses. Readings of seminal art historical theories and interpretive methodologies. Hands-on practice with library research tools. Completion of a fully researched term paper. Prerequisites: ARTE 118 and ARTE 119, ARTH 315 or ARTH 316 or permission of instructor

ARTH 495 Independent Study (1-3)

ARTH 496 Topics: (1-3)

ARTH 499 Internship (1-12)

ART: STUDIO ART (ARTS)

ARTS 151 Foundation Drawing (3)
Development of the artist's perceptual drawing skills. Abstract or conceptual approaches may be introduced. Traditional drawing media stressed. Focus on nature of drawing, historical traditions and contemporary processes.

ARTS 196 Topics (1-3)

ARTS 221 Metalsmithing (3)
Prerequisite: ARTE 102 or consent of instructor.

ARTS 231 Fibers Workshop I (3)
Introduction to fiber and fabric art forms, including creation of original weaving, felt and fabric collage, batik and other applications. Prerequisites: ARTE 101 and ARTS 151.

ARTS 241 Workshop I: Hand Building (3)
Introduction to the ceramic process using traditional materials and methods for hand formed ceramics objects. Involvement in clay from raw material through the glazing and firing process. Studio emphasis on technique and creative process.

ARTS 242 Workshop II: Beginning Throwing (3)
Beginning throwing processes. Creating vessels while learning the technique of shaping clay by throwing. Form and function explored. Initial firing process for bisque fire taught. Development of under-glaze and glaze techniques.

ARTS 251 Figure Drawing (3)
Perceptual skills from foundations drawing applied to drawing the human figure. Human anatomy as applied to the visual artist. Further instruction in composition and design. Individual and group critiques ongoing. Nude models used to explore skeletal, muscular, and anatomical problems. Prerequisites: ARTS 151 and ARTE 101.

ARTS 252 Mixed Media Drawing (3)
Artistic exploration of experimental media, dry and wet, and alternative media alone or combined on varied drawing surfaces to give dimension, texture and vitality to a drawing. Figure and still life are main subject matter for observational approach. Prerequisite: ARTS 251.

ARTS 273 Introduction to the Printmaking Arts (3)
Introduction to the core printmaking techniques of Intaglio (dry-point, line etching, soft ground, aquatint), relief (woodcut), and stone lithography. Slide lectures include historical and contemporary concepts. Individual and group critiques ongoing. Prerequisite: ARTS 151.

ARTS 284 Ceramic Sculpture Workshop I (3)
Introduction to water-based clay as a sculptural material fired for permanence. Basic processes include coil, slab, and thrown constructions. Glaze development with sculptural clay includes cone 10, 5, 06, and 019. Some figurative work on slabs and 3D explored. Prerequisite: ARTS 241.

ARTS 291 Foundation Painting (3)
Bridge between drawing and painting. Mixing and use of color as it relates to perceptual problem solving. Focus on the application of watercolor and acrylic paint. Discussion of basic physics, perceptual and psychological effects of color. Prerequisites: ARTE 101 and ARTS 151.

ARTS 292 Oil Painting (3)
Introduction to techniques and materials of oil painting. Designed for limited experience in oil painting. Observational approach. Exposure to varieties of subject matter and developing skills for individual expression. Prerequisite: ARTE 101 and ARTS 151.

ARTS 296 Topics: (1-3)

ARTS 321 Metalsmithing (3)
Prerequisites: ARTS 151 and ARTS 221.

ARTS 331 Fibers Workshop II (3)
Intermediate examination of several fiber or fabric applications. Prerequisite: ARTS 231.

ARTS 341 Mold Making and Ceramic Design I (3)
Designing ceramic objects for mass production utilizing slip casting

techniques. Transformation of sketches and drawings into scale plans for standardized production. Making of bisque molds and plaster molds for mass production. Application of slip casting technique. Prerequisite: ARTS 241 or ARTS 242, or permission of instructor.

ARTS 342 Workshop III: Intermediate Throwing (3)
A continuation of the throwing process involving more complex vessels and techniques using lids, spouts, and pedestals. Assignment to firing teams for studio production for high fire clay. Prerequisite: ARTS 242.

ARTS 344 Workshop IV: Clay Alteration (3)
Alteration of thrown vessels using several techniques, including wet shaping, leatherhard shaping, marks, incising, and stamping. Creating larger vessels using a two-piece technique. Kiln teams assigned for high firings. Prerequisite: ARTS 342.

ARTS 345 Noborigama Wood Fire Ceramics I (3)
A comprehensive study of wood fire ceramics that includes research on the development of clays, glaze, and firing techniques for wood fire. Historical background, vocabulary, studio involvement, and firing at the kiln site required. Prerequisites: ARTS 242 and ARTS 342.

ARTS 346 Workshop V: Low Fire Technique (3)
All low fire processes and terra sigillatta, raku, low fire salt bisque, barrel firing and Maria dung firings. Prerequisite: ARTS 342.

ARTS 351 Drawing Workshop I (3)
Traditional and contemporary drawing processes and advanced compositional strategies. Perceptual, abstract, and conceptual ideas explored within the context of strengthening the artist's formal skills and idea development. Matting and framing works on paper. Individual and group critiques ongoing. Prerequisite: ARTS 251.

ARTS 352 Drawing Workshop II (3)
Formal mastery of the visual language and development of a personal artistic direction. Critical thinking skills about individual artistic influences explored. Exhibition of works in a public space. Individual and group critiques ongoing. Digital portfolio developed. Prerequisite: ARTS 351.

ARTS 353 Visual/Conceptual Thinking (3)
Learning meaningful questioning. Engaging in creative problem solving. Assumptions about art questioned. Media selection is not limited; problems posed may be solved with 2D or 3D media. Prerequisite: ARTS 251.

ARTS 354 Figure Drawing & Modeling (3)
Human figure as a critical component. Combines 3-D modeling methods with classical drawing approaches developing a deeper understanding of the subtleties of human anatomy. Group and individual critiques are ongoing. Digital documentation of work for portfolios. Prerequisites: ARTE 102 and ARTS 251.

ARTS 360 Sketchbook (3)
The sketchbook as a primary medium for developing creativity and the artist's thought processes. Exploring exercises and field assignments for building an approach to keeping a sketchbook as a place for ideas and recording the artist's visual experience. Prerequisites: ARTE 101 and ARTS 251, or consent of instructor.

ARTS 371 Printmaking Workshop I (3)
Develop skills with intaglio, relief, and lithograph. Exploration of advanced techniques. May include multiple color printing processes, engraving, and collagraph. Work created will be matted. Prerequisites: ARTS 273.

ARTS 372 Printmaking Workshop II (3)
Exploration of printmaking media. Investigation of a printmaker of choice to develop critical thinking about personal artistic skills. Artwork created will be matted, shown in a public space, and documented digitally. Prerequisite: ARTS 371.

ARTS 384 Ceramic Sculpture Workshop II (3)
Creating in clay using various techniques and processes. Explorations with clay includes elements of the figure, representational and abstract, as well as 3D forms as pure sculpture. Artwork based and finished for professional exhibition. Independent work via student/professor contract. Prerequisite: ARTS 284.

ARTS 385 Summer Institute in Marble, Colorado (3)
Summer symposium at Marble/Marble Carving Symposium. Carve Colorado Yule Marble from the same quarries used in the Lincoln Memorial, the Tomb of the Unknown Soldier and other projects. A fee for the summer institute is in addition to Colorado Mesa University tuition and fees. Prerequisite: ARTT 270.

ARTS 387 Bronze Commissions: Workshop I (3)
Special bronze commissions and projects as a liaison project with schools or the community. Direct experience at creating art from inception to mounted sculpture. Presentations to respective clients, budgets, armatures, sculpting, molds, wax, investing, and finishing of the bronze. Basing of the sculptures complete the process. Prerequisite: ARTS 281.

ARTS 388 Ceramic Sculpture Workshop III (3)
Thematic concepts for the development of a BFA exhibit in clay explored. Student/mentor consultation of utmost importance as the theme is developed. Independent work via student/professor contract. Artwork based for professional presentation. Prerequisite: ARTS 384.

ARTS 391 Painting Workshop I (3)
Skills developed in painting media of choice. Exploring advanced techniques to develop individual artistic expression. Discussions of personal influences and historical context ongoing. Prerequisite: ARTS 292.

ARTS 392 Painting Workshop II (3)
Further investigation of techniques and material in individual painting medium. Personal artistic influences identified tools to aid individual artistic direction. Individual and group critiques are ongoing. End of semester artwork presented in public space and documented digitally. Prerequisite: ARTS 391.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

ARTS 393 Japanese Painting I (3)
Exploration of Japanese Sumi-e (Japanese India ink) painting method, technique and philosophies. Involves brush painting and calligraphy, traditional methods and materials, and expanding knowledge of Japanese/Oriental art, esthetics, and philosophy. Prerequisites: ARTS 151 and 152.

ARTS 394 Japanese Painting II (3)
Introduces Nihonga painting method and materials. Nihonga combines iwaenogu (Japanese dry pigments) with nikawa (glue from animal skins and bones) applied on Japanese paper, silk, et al. Improves drawing and painting skills with Japanese materials and methods. Expands knowledge of world art through study of Japanese art. Prerequisites: ARTS 151, 291, and 393.

ARTS 395 Independent Study (1-3)

ARTS 396 Topics: (1-3)

ARTS 421 Metalsmithing (3)
Prerequisite: ARTS 321

ARTS 431 Fibers Workshop III (3)
Creating of advanced fiber and fabric artwork; examination of historical precedents. Prerequisite: ARTS 331.

ARTS 441 Glaze Calculation (3)
Ceramics majors. Develops skills in kiln theory, design, and construction. Raku, wood, high and low fire kilns explored, utilizing traditional brick configurations and ceramic fiber and castable refractories. Construction using tools and equipment to fabricate steel frameworks and the laying of brick utilizing mortars. One kiln will be designed and constructed in class. Prerequisite: Consent of instructor.

ARTS 442 Kiln Construction (3)
Ceramics majors. Theory and practice of formulation of glazes utilizing minerals and oxides. Development of glazes includes empirical formula to a batch, batch to an empirical formula, and limit formulas. Basic chemistry of the molecular composition of raw materials. Background in ceramics required. Prerequisite: Consent of instructor.

ARTS 443 Workshop VIII: Production Throwing (3)
Using the potter's wheel to develop a production style involvement in the throwing process. Discussion of marketing and establishing a studio to create clay art. Develop skills to create thrown multiples in clay. Prerequisite: ARTS 342.

ARTS 444 Workshop VI: Clay Alteration (3)
Alteration of thrown vessels using several techniques, including wet shaping, leatherhard shaping, marks, incising, and stamping. Creating larger vessels using a two-piece technique developed. Kiln teams assigned for high firings. Prerequisite: ARTS 344.

ARTS 445 Noborigama Wood Fire Ceramics II (3)
A comprehensive study of wood fire ceramics that includes research on the development of clays, glaze, and firing techniques for wood fire. Historical background, vocabulary, studio involvement, and firing at the kiln site required. Prerequisites: ARTS 242, ARTS 342, and ARTS 345.

ARTS 446 Workshop VII: Low Fire Techniques (3)
Continuation of all low fire processes. Involvement with terra sigillatta, raku, low fire salt bisque, barrel firing, and Maria dung firings. Prerequisite: ARTS 346.

ARTS 451 Drawing Workshop III (3)
Senior level drawing. Develop drawings used in senior exhibitions and professional purposes. Exploration and analysis of what historical context fits artist's style. Individual and group critiques ongoing. Digital portfolio developed. Prerequisite: ARTE 352

ARTS 452 Drawing Workshop IV (3)
Subject matter, content, and form are determined by the student under the guidance of the instructor. Ability to speak and write articulately about created artwork developed. Digital portfolio developed. Prerequisite: ARTS 451.

ARTS 453 Visual and Conceptual Thinking (3)
Advanced. Continuation of ARTS 353. Prerequisite: ARTS 353.

ARTS 460 Sketchbook II (3)
Individualized, professional visual and conceptual documentation for the fine artist and designer. Advanced students identify personal goals, explore sketchbook styles, develop compositional approaches, and research media and subject matter (including color) in recording visual experiences. Prerequisite: ARTS 360.

ARTS 471 Printmaking Workshop III (3)
Research a printmaking technique that has not been introduced. Create a print and present the method. Develop a professional portfolio of artwork for senior exhibition and professional shows. Artwork created will be matted and documented digitally. Prerequisite: ARTS 372.

ARTS 472 Printmaking Workshop IV (3)
Technical refinement and conceptual development. Refining a personal direction for the artist's imagery. Artwork created will be matted and documented digitally. Prerequisite: ARTS 471.

ARTS 484 Ceramic Sculpture Workshop IV (3)
Thematic concepts for the development of a BFA exhibit in clay continued. Independent work via student/professor contract. Artwork based for professional presentation. Prerequisite: ARTS 384.

ARTS 487 Bronze Commissions Workshop II (3)
Special bronze commissions and projects as a liaison project with schools or the community. Direct experience at creating art from inception to mounted sculpture. Presentations to respective clients, budgets, armatures, sculpting, molds, wax, investing, and finishing of the bronze. Basing of the sculptures complete the process. Continuation of a year-long project at the 400 level. Prerequisite: ARTS 387.

ARTS 491 Painting Workshop III (3)
Workshop III continues development of professional portfolios of artwork used for senior exhibitions and other professional shows. Artistic influences explored. Oral and written communication skills developed in preparation for professional interaction. End of semester artwork documented digitally. Prerequisite: ARTS 392.

ARTS 492 Painting Workshop IV (3)
Technical refinement and conceptual development emphasized. Refinement of the artist's imagery. Ability to speak and write about work developed. End of semester artwork documented digitally. Prerequisite: ARTS 491.

ARTS 495 Independent Study (1-3)

ARTS 496 Topics: (1-3)

ARTS 497 Senior Exhibition (3)
Choose to participate in a senior exhibition in the Art Gallery. Submission of portfolio required. Must receive a recommendation by the studio art faculty. Must enroll in the course during the semester in which the exhibition is presented. Prerequisites: ARTE 300, permission of faculty.

ART: SCULPTURE/STUDIO (ARTT)

ARTT 270 Sculpture I (3)
Introduction of technique and processes practiced in advanced sculpture courses. Basic welding, mold making, bronze casting and fabrication/ construction using multimedia explored. Development of aesthetic concepts stressed and their successful applications. Projects conclude with group critiques. Prerequisite: ARTS 102.

ARTT 371 Sculpture/Construction I (3)
Exploration of MIG welding, beginning metal fabrication techniques, woodworking and multimedia. Historical contexts. Aesthetic concepts stressed and projects conclude with group critiques. Prerequisite: ARTT 270.

ARTT 372 Sculpture/Construction II (3)
Introduction of advanced fabrication techniques and tools in steel, wood and multimedia. Advanced finishes and finishing techniques also introduced. Continued focus on historical contexts. Prerequisite: ARTT 371.

ARTT 380 Bronze/Casting I (3)
Bronze casting using the lost wax process and ceramic shell. Includes history, terminology, equipment, and procedure. Includes working in wax, sprueing the art, ceramic shell investment, technical-pouring procedures, devesting the shelled patina. Studio emphasis on technique and creative process ending in finished bronze sculpture. Prerequisite: ARTT 270.

ARTT 381 Bronze/Casting II (3)
Creating in wax using various techniques. Explorations in wax using representational and abstract forms. Advanced finishes and patinas introduced. Prerequisite: ARTT 380.

ARTT 471 Sculpture/Construction III (3)
Sculpting in steel, wood and multimedia. Introduction to forge work. Direction chosen based on interests in materials and processes taught in previous sculpture/construction courses. Independent work via professor contract. Prerequisite: ARTE 371.

ARTT 472 Sculpture/Construction IV (3)
Thematic concepts for development of a BFA exhibit explored. Independent work via professor contract. Prerequisite: ARTE 471.

ARTT 475 Sculpture Workshop I (3)
Continued focus on a student's individual BFA direction. Independent work via student/professor contract. Prerequisite: ARTT 472.

ARTT 476 Sculpture Workshop II (3)
Emphasis placed on finishing sculpture representative of BFA direction. Sculpture focused and finished for professional presentation, independent work via student/professor contact. Prerequisite: ARTT 475.

ARTT 480 Bronze/Casting III (3)
Creating in wax using various techniques including advanced mold making. Focus on history and dynamics of furnace building and foundry equipment manufacture. Prerequisite: ARTT 381.

ARTT 481 Bronze/Casting IV (3)
Thematic concepts for development of a BFA exhibit explored. Independent work via professor contract. Prerequisite: ARTT 480.

ARTT 483 Bronze Workshop I (3)
Continued focus on a student's individual BFA direction. Independent work via student/professor contract. Prerequisite: ARTT 481.

ARTT 484 Bronze Workshop II (3)
Emphasis placed on finishing sculpture representative of the student's BFA direction. Sculpture will be focused and finished for professional presentation. Independent work via student/professor contract. Prerequisite: ARTT 483.

AVIATION TECHNOLOGY (AVTN)

AVTN 101 Private Pilot Ground School (4)
Preparation for Private Pilot Airplane, Single Engine, Land-FAA Knowledge Exam.

AVTN 102 Private Pilot Flight (4)
Preparation in flight training for the Private Pilot Airplane, Single-Engine, Land FAA Practical Test, and completing requirements for the Private Pilot Certificate.

AVTN 104 Private Pilot Flight Helicopter (4)
Preparation in flight training for the Private Pilot Helicopter FAA Practical Test and completing requirements for the Private Pilot Certificate.

AVTN 105 Aviation Meteorology (4)
Recognition, interpretation and evaluation of atmospheric weather as it relates to and affects aviation.

AVTN 111 Instrument Pilot Ground School (4)
Preparation for the FAA Instrument Rating Knowledge Exam.

AVTN 112 Instrument Pilot Flight (4)
Preparation in flight training for the Instrument Rating, Single Engine Airplane FAA Practical Test, and completing requirements for the Instrument Rating.

AVTN 114 Instrument Pilot Flight-Helicopter (1)
Provide knowledge needed to pass the FAA Rotorcraft Helicopter Instrument written and practical tests.

AVTN 201 Commercial Pilot Ground School (2)
Preparation for the Commercial Pilot Airplane, Single Engine, Land FAA Knowledge Exam.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

AVTN 202 Commercial Pilot Flight I (3)
The first of a two-part sequence of flight training in preparation for the Commercial Pilot Certificate, Airplane, Single Engine Land FAA Practical Test. Consists of the cross country aeronautical experience required for the Commercial Certificate.

AVTN 203 Commercial Pilot Flight II (4)
Preparation in flight training for the Commercial Pilot, Airplane Single Engine, Land FAA Practical Test, completing requirements for the Commercial Pilot Certificate.

AVTN 204 Commercial Flight I-Helicopter (2)
Preparation for the Commercial Pilot Helicopter FAA Practical Test. Focuses on the first part of a two-part sequence of flight training. Consists of training and review of those maneuvers required for private pilot helicopter certification with emphasis placed on student performance of these maneuvers to commercial helicopter pilot proficiency standards, as well as the introduction of additional maneuvers required for the Commercial Pilot Helicopter Certificate.

AVTN 205 Mountain Flying Ground School (1)
Preparation of the unique aspects of flying in mountainous terrain and the additional knowledge and proficiency necessary for safe and efficient operation in mountain and high altitude terrain.

AVTN 206 Crew Resource Management (1)
Comprehensive classroom instruction coupled with Line Oriented Flight Training (LOFT) in a Flight Training Device. Covers the knowledge, skills, and attitudes necessary to enhance safety and operate effectively as a member of an airplane/helicopter crew.

AVTN 207 Multi-Engine Ground School (1)
Preparation for the FAA Practical Test for Private or Commercial Pilot, Airplane Multi-Engine Land.

AVTN 208 Multi-Engine Flight (1)
Preparation in flight training for the Airplane, Multi-Engine Rating and completing requirements for this rating.

AVTN 210 Multi-Engine Cross Country Flight (2)
Preparation for cross-country flight in multi-engine aircraft. Flights will be conducted to and from high-traffic airports with approach control and tower facilities.

AVTN 211 Fundamentals of Instruction (2)
Preparation for the FAA Fundamentals of Instructing Knowledge Exam.

AVTN 212 Flight Instructor Ground School (2)
Preparation for the FAA Flight Instructor Airplane Knowledge Exam.

AVTN 213 Flight Instructor Flight (1)
Preparation of mastery in the areas of: Fundamentals of Instructing, Technical Subject Areas, Preflight Preparation and Lesson, Grand and Airport Operations, Take Offs and Climbs, Fundamentals of Flight, Stalls, Spins, Maneuvering During Slow Flight, Basic Instrument Maneuvers, Performance Maneuvers, Ground Reference Maneuvers, Emergency Operations, Approaches, Landings, and After Landing Procedures, by passing the FAA Practical Test for Flight Instructor Airplane, Single-Engine Land.

AVTN 214 Commercial Flight II-Helicopter (5)
Preparation in continuous flight training for the Commercial Pilot Helicopter FAA Practical Test, completing requirements for the Commercial Pilot Certificate.

AVTN 215 Flight Instructor Flight-Helicopter (1)
Preparation of flight training for the Flight Instructor Helicopter FAA Practical Test, and completing requirements for the Flight Instructor Helicopter Certificate.

AVTN 218 ATC Procedures (4)
Preparation of IFR operations in the Air Traffic Control System, including: general procedures, terminal and IFR procedures, radar and non-radar environments, enroute procedures, and special and emergency procedures.

AVTN 221 Instrument Instructor Ground School (2)
Preparation for the FAA Instrument Instructor Knowledge Examination.

AVTN 222 Instrument Instructor Flight (1)
Preparation in flight training for the Flight Instructor Instrument Airplane, Single-Engine Land FAA Practical Test, completing requirements for the Instrument Instructor Certificate.

AVTN 224 CFI Instrument-Helicopter (4)
Preparation to pass the FAA Flight Instructor Instrument Rotocraft Helicopter written and practical tests.

BIOLOGY (BIOL)

✓ **BIOL 101 General Human Biology-GTSC1 (3)**
✓ **BIOL 101L General Human Biology Laboratory-GTSC1 (1)**
Scientific method, ecology, pollution, drugs, reproduction, cancer, heart disease, nutrition, and selected body structure and function relationships. Labs will include required field trips. Can be taken for graduation or general education credit by biology majors who have completed no more than 10 hours in BIOL. Three lectures and one two-hour laboratory per week.

✓ **BIOL 102 General Organismal Biology-GTSC1 (3)**
✓ **BIOL 102L General Organismal Biology Laboratory-GTSC1 (1)**
Selected body structure and function relationships, genetic engineering, animal phylum relationships, evolution, plant growth and development. Labs will include dissections and some required field trips. Can be taken for graduation or general education credit by biology majors who have completed no more than 10 hours in BIOL. Three lectures and one two hour laboratory per week.

✓ **BIOL 105 Attributes of Living Systems-GTSC1 (3)**
✓ **BIOL 105L Attributes of Living Systems Laboratory-GTSC1 (1)**
Cell structure and function, cell energetics, biochemistry and genetics. Three lectures and one two-hour lab per week. High school chemistry recommended.

BIOL 106 Principles of Animal Biology (3)
BIOL 106L Principles of Animal Biology Laboratory (1)
Broad morphological, physiological, and ecological features of principal phyla of animals and relationships between them. Three lectures and one two-hour laboratory per week. Prerequisite: BIOL 105 or consent of instructor.

BIOL 107 Principles of Plant Biology (3)
BIOL 107L Principles of Plant Biology Laboratory (1)
Reproductive biology, anatomy, physiology, phylogeny and ecology of the major groups of plants. Three lectures and one two-hour laboratory per week. Prerequisite: BIOL 105 or consent of instructor.

BIOL 113 Outdoor Survival (3)
Learning skills necessary for biologists working in the field, including wilderness survival, wilderness medicine, camping/climbing skills, edible/poisonous plants, urban survival skills, and epidemiological/radiation/chemical threats. Three one-hour lectures per week.

BIOL 154 Technobiology (2)
BIOL 154L Technobiology Laboratory (2)
Exploration of the electrical, chemical and biological languages of life. Students will learn to program life-like events, build robots, and approach the study of life from the point of view of synthesis instead of analysis. This course may be used for honors credit if extra criteria are met as dictated by instructor.

BIOL 196 Topics (1-3)

BIOL 203 Human Nutrition (3)
Introduction to the science of the effects of food on the body and the body's need for and utilization of essential nutrients.

BIOL 205 Health, Nutrition, Safety (3)
Study of the interrelationships of physical care to ensure a positive growth environment for children. Focus areas shall include: promotion and protection of child health through studies of regulations and community resources; health education activities appropriate for early childhood educators; nutrition standards, preparation, and sanitation.

BIOL 208 Fundamentals of Ecology and Evolution (3)
BIOL 208L Fundamentals of Ecology and Evolution Laboratory (1)
Introduction to current theory and experimental work on biology of populations, species interactions, community structure, organismal and molecular evolution, genetic structure of populations, and natural selection. Lab field trips and laboratory-based learning experiences in ecology and evolution. Prerequisites: BIOL 105, and BIOL 106 or BIOL 107 (may be taken concurrently), or consent of instructor.

BIOL 209 Human Anatomy and Physiology (3)
BIOL 209L Human Anatomy and Physiology Laboratory (1)
Study of the form and function of several major systems of the human body. For students with an interest in pre-med, nursing, human health, and biology. A background in general biology is recommended. Three lectures and two one and one-half hour laboratories per week.

BIOL 210 Human Anatomy and Physiology II (3)
BIOL 210L Human Anatomy and Physiology II Laboratory (1)
Continuation of Human Anatomy and Physiology, which covers additional body systems and disease processes. For students with an interest in pre-med, nursing, human health, and biology. Three one-hour lectures and two one and one-half hour laboratories per week.

BIOL 211 Ecosystem Biology (4)
BIOL 211L Ecosystem Biology Laboratory (1)
Ecological studies utilizing the concepts of population biology: energetics, dynamics, distribution, and sociology. Overnight and/or weekend field trips may be required. Four lectures and one three-hour laboratory per week.

BIOL 221 Plant Identification (2)
BIOL 221L Plant Identification Laboratory (2)
Identification of flowering plants through the use of regional floras and recognition of common plant families. Plant collection and herbarium techniques. Two lectures and two two-hour laboratories per week. Prerequisites: BIOL 107.

BIOL 241 Pathophysiology (4)
Function of the human body with emphasis on interpretation of those functions in relation to disease processes. Prerequisite: BIOL 209 or 341.

BIOL 250 Introduction to Medical Microbiology (3)
BIOL 250L Introduction to Medical Microbiology Laboratory (2)
Microorganisms, especially the procaryotic bacteria; culture techniques, biochemical identification, and infectious human diseases. Three lectures and two two-hour laboratories per week.

BIOL 296 Topics (1-3)

BIOL 301 Principles of Genetics (3)
BIOL 301L Principles of Genetics Laboratory (1)
Principles of genetics at the organismal, cellular, and molecular level dealing with the genetics of prokaryotic and eukaryotic organisms and viruses. Three lectures and one three-hour laboratory per week. Prerequisites: BIOL 105 and MATH 113; BIOL 302 recommended.

BIOL 302 Cellular Biology (3)
Form, function, and bioenergetics of the cell. Prerequisites: BIOL 106, 107, or consent of instructor.

BIOL 310 Developmental Biology (3)
BIOL 310L Developmental Biology Laboratory (2)
Embryonic growth and development of plants and animals. Also errors in normal development, cancer, aging, and related topics. Three lectures and two two-hour laboratories per week.

BIOL 315 Epidemiology (3)
Characteristic patterns of communicable disease occurrence as related to individuals, geographic location, and time; factors affecting disease occurrence, the nature of vital statistics, sampling procedures, and study design. An independent project is required.

BIOL 320 Plant Systematics (3)
Systematic botany encompassing principles of classification, nomenclature, and evaluation of current classifications of angiosperms. BIOL 105, BIOL 107, and BIOL 208.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

BIOL 321 Taxonomy of Grasses (2)
BIOL 321L Taxonomy of Grasses Laboratory (2)
A study of the grass family and grass-like plants (sedges and rushes) dealing with the evolution, classification, and identification of these plants. Two lectures and two two-hour laboratories per week. Prerequisite: BIOL 107 or consent of instructor.

BIOL 331 Insect Biology (3)
BIOL 331L Insect Biology Laboratory (2)
Insect taxonomy, evolution, ecology, and physiology. Insect collection required. Three lectures and two two-hour laboratories per week. Prerequisites: BIOL 106.

BIOL 332 Introduction to Geographic Information Systems (2)
BIOL 332L Introduction to Geographic Information Systems Laboratory (1)
Basic knowledge of the fundamentals of GIS with regard to theoretical, technical, and application issues. Prerequisites: GEOL 305 or GEOG 131.

BIOL 333 Marine Biology (3)
Study of the principles that govern biological systems in the ocean with an emphasis on the natural history, ecology, and evolution of marine organisms. Three one-hour lectures per week. Prerequisites: BIOL 106 and BIOL 107, or consent of instructor.

BIOL 335 Invertebrate Zoology (3)
BIOL 335L Invertebrate Zoology Laboratory (1)
Study of the evolution, morphology, life history, ecology and classification of invertebrates with a focus on non-insect invertebrates. Three one-hour lectures and one two-hour lab per week. Prerequisites: BIOL 106, or consent of instructor.

BIOL 336 Fish Biology (3)
Study of the anatomy and physiology of fish. Topics include ecology, fish diseases, and marine and freshwater fishery techniques. Field trips may be offered. Prerequisite: BIOL 106 or consent of instructor.

BIOL 337 Criminalistics (3)
Offers a broad view of forensic techniques and subjects. Case studies of crimes and subsequent investigations discussed along with methodologies in evidence collection and analysis in modern crime laboratories as well as the limitations of such. Students use this course to narrow their field of interest and study. Prerequisites: BIOL 105/105L and CHEM 131/131L.

BIOL 337L Criminalistics Laboratory (1)
Offers a broad view of forensic techniques and subjects. Case studies of crimes and subsequent investigations discussed along with methodologies in evidence collection and analysis in modern crime laboratories as well as the limitations of such. Students use this course to narrow their field of interest and study. Prerequisites: BIOL 105/105L and CHEM 131/131L.

BIOL 341 General Physiology (3)
BIOL 341L General Physiology Laboratory (1)
Function of the circulatory, nervous, respiratory, digestive, urinary, reproductive, and endocrine systems of the human body. Three lectures and one two-hour laboratory per week. Prerequisite: BIOL 106 or consent of instructor.

BIOL 342 Histology (2)
BIOL 342L Histology Laboratory (2)
Microscopic study of tissues and organs. Two lectures and two two-hour laboratories per week. Prerequisites: BIOL 106 or BIOL 107 and consent of instructor.

BIOL 343 Immunology (3)
Immune system of animals with emphasis on human immune response. Includes the immune organs and both cellular and humoral responses. An independent research project is required. Prerequisites: BIOL 302, or BIOL 301 and BIOL 301L.

BIOL 344 Forensic Molecular Biology (3)
BIOL 344L Forensic Molecular Biology Laboratory (1)
Molecular biology and genetics used in forensic investigations, including the genetic basis of diversity and DNA typing techniques. Prerequisites: BIOL 105/105L and CHEM 131/131L.

BIOL 350 Microbiology (3)
BIOL 350L Microbiology Laboratory (1)
Growth, morphology, metabolism, genetics and ecology of microorganisms. Includes aspects of industrial microbiology, clinical microbiology, and genetic engineering. Three lectures and one three-hour laboratory per week. Prerequisites: BIOL 105, and CHEM 121/121L or CHEM 131/131L.

BIOL 371L Laboratory Investigations in Cellular and Molecular Biology (3)
Laboratory exercises and experiments that highlight important topics in cellular and molecular biology. The mechanics of laboratory science are introduced with an emphasis on modern techniques, hypothesis development, data analysis and scientific communication. Two three-hour laboratories per week. Prerequisites: BIOL 301 and CHEM 132 or consent of instructor.

BIOL 386 Introduction to Science Education (3)
Theories of learning and how they relate to methods of instruction in science education. Application of instructional methods and the development of course curricula. Required for Teacher Licensure (Secondary) in Biology.

BIOL 387 Structured Research (1-3)
Independent research beyond the scope of the published curriculum. Designed for advanced sophomore and junior level students to participate in research activities under the direction of a specific faculty member. May be repeated for up to 6 credit hours. Prerequisites: sophomore or junior standing, or consent of instructor.

BIOL 395 Independent Study (1-3)

BIOL 396 Topics (1-3)

BIOL 396A Topics (1-3)

BIOL 403 Evolution (3)
Organismal and molecular evolution emphasizing its importance as the unifying theory in biology. Evolution of natural selection on genetic structure of populations. Prerequisites: BIOL 106, BIOL 107, BIOL 208, BIOL 301, and senior standing.

BIOL 405 Advanced Ecological Methods (3)
BIOL 405L Advanced Ecological Methods Laboratory (2)
Examination of quantitative methods in population, community, and ecosystems ecology. Extensive writing, computer work and field trips are required. Three lectures and two two-hour laboratories per week. Prerequisites: BIOL 105, 106, 107; STAT 311 is recommended.

BIOL 406 Plant-Animal Interactions (3)
Ecological, evolutionary, and applied approaches to the studies of herbivory, ant-plant interactions, pollination, and seed dispersal. Prerequisites: BIOL 105, 106, 107, 208; BIOL 331 is recommended.

BIOL 407 Tropical Field Biology (5)
Field research techniques, ecology and natural history in lowland and montane tropical rainforests of Ecuador. Ten nine-hour labs and fifteen two-hour lectures conducted at biological field stations in Ecuador. Prerequisite: BIOL 105, 106, 107, or consent of instructor.

BIOL 408 Desert Ecology (3)
Overview of desert ecology in the surrounding area and in the United States. Covers ecology of U.S. deserts including specific plant, animal, and human adaptations. Discussion on world deserts. Field trips may be offered. Prerequisites: BIOL 208, and upper division standing or consent of instructor.

BIOL 409 Gross and Developmental Human Anatomy (2)
BIOL 409L Gross and Developmental Human Anatomy Laboratory (2)
Gross anatomy, embryology, radiological and cross-sectional anatomy of the human body as taught by lectures, demonstrations, and dissections of the human cadaver. Emphasis on thorax, abdomen, and extremities. Two lectures and one four-hour laboratory per week. Prerequisites: BIOL 209/209L and consent of instructor.

BIOL 411 Mammalogy (3)
BIOL 411L Mammalogy Laboratory (1)
Classification, life histories, and ecology of mammals. Overnight and/or weekend field trips may be required. Two lectures and one two-hour laboratory or three-hour field trip per week. Prerequisites: upper division standing or consent of instructor.

BIOL 412 Ornithology (3)
BIOL 412L Ornithology Laboratory (1)
Classification and life history of birds, including field identification. Overnight and/or weekend field trips may be required. Three lectures and one two-hour laboratory or three-hour field trip per week. Prerequisite: upper division standing or permission of instructor.

BIOL 413 Herpetology (3)
BIOL 413L Herpetology Laboratory (1)
Classification, evolution, morphology and ecology of amphibians and reptiles. Overnight or weekend field trips may be required. Three lectures and one two-hour laboratory per week. Prerequisites: upper division standing or consent of instructor.

BIOL 414 Aquatic Biology (3)
BIOL 414L Aquatic Biology Laboratory (1)
Classification, life history, and ecology of aquatic animals. Overnight and/or weekend field trips may be required. Three lectures and one two-hour laboratory or three-hour field trip per week. Prerequisite: upper division standing or permission of instructor.

BIOL 415 Tropical Ecosystems (2)
Ecology of rainforests, grasslands, and desert ecosystems of the world. Prerequisites: one year of biological sciences or consent of instructor.

BIOL 416 Ethology (3)
BIOL 416L Ethology Laboratory (1)
Mechanisms and evolution of behavior utilizing captive animals and field trips. Overnight field trips may be required. Three lectures and one two-hour laboratory per week and several field trips, possibly overnight. Prerequisites: BIOL 106, 107, and consent of instructor.

BIOL 418 Wildlife Management (3)
Examination of wildlife biology and management. Topics covered include managing habitat, mammals, birds, fish, and other small animals. Three one-hour lectures per week. Prerequisites: BIOL 105 and BIOL 106 or BIOL 107, and BIOL 208. Corequisite: BIOL 418L.

BIOL 418L Wildlife Field Techniques (2)
Methods for using equipment in the field of wildlife and fisheries management. One one-hour laboratory and one three hour field trip per week. Prerequisite: Upper division standing or consent of instructor. Corequisite: BIOL 418

BIOL 421 Plant Physiology (3)
BIOL 421L Plant Physiology Laboratory (1)
Plant-water relationships, plant mineral nutrition, photosynthesis, plant growth and development at the molecular and cellular level to account for plant growth at the organismal level. Three lectures and one two-hour laboratory per week. Prerequisites: BIOL 107, CHEM 121 and also recommended CHEM 122.

BIOL 423 Plant Anatomy (3)
BIOL 423L Plant Anatomy Laboratory (2)
Form, variability, and structure of the tissues comprising the body of the higher plant. Three lectures and two two-hour laboratories per week. Prerequisites: BIOL 107, 107L.

BIOL 425 Molecular Genetics (3)
Nature and expression of genetic information at the molecular level in prokaryotic and eukaryotic organisms. Prerequisite: BIOL 301.

BIOL 426 Introduction to Electron Microscopy (2)
BIOL 426L Introduction to Electron Microscopy Laboratory (2)
History, theory and techniques of Electron Microscopy science. Some detailed knowledge of biology, histology, chemistry and physics is required to thoroughly and competently investigate selected specimens. Special attention will be paid to the operation of the microscope at Colorado Mesa University. Prerequisites: restricted to juniors and seniors with instructor approval.

BIOL 431 Animal Parasitology (3)
BIOL 431L Animal Parasitology Laboratory (1)
Common and important parasites of domestic animals and man. Ecology, epidemiology, diagnosis, and control are discussed with examples from the Protozoa, Trematoda, Cestoda, Nematoda, and Arthropoda. An independent

research project is required. Three lectures and one two-hour laboratory per week.

BIOL 433 Marine Invertebrate Communities (3)
Techniques of collection and laboratory examination of marine invertebrates from intertidal and subtidal habitats. Seven eight-hour labs and seven two-hour lectures will be conducted at a marine biological research station. Prerequisites: BIOL 106, or consent of instructor.

BIOL 441 Endocrinology (3)
Anatomy and physiology of the endocrine system of vertebrates. Prerequisite: BIOL 106 or consent of instructor.

BIOL 442 Pharmacology (3)
Principles underlying absorption, distribution, metabolism, and excretion of drugs with emphasis on mechanisms of action and physiological responses. Prerequisite: BIOL 209 and 209L, one year of chemistry, and junior or senior standing.

BIOL 450 Mycology (2)
BIOL 450L Mycology Laboratory (2)
Fungi, with emphasis on comparative morphology and development, classification, physiology, genetics, and ecological relationships. Emphasis will also be placed on the importance of fungi in industry, agriculture, and medicine. Two lectures and two two-hour laboratories per week. Prerequisites: BIOL 107 or consent of instructor.

BIOL 482 Senior Research (2)
Designed to introduce students to appropriate procedures for conducting literature reviews, designing experiments, collecting and analyzing data, and preparing written and oral presentations of such experiments. Two lectures per week or equivalent. Prerequisites: senior standing, 2.80 GPA, and consent of instructor.

BIOL 483 Senior Thesis (2)
Students prepare an in-depth thesis elaborating on a major conceptual issue(s) in biology. The purpose of the thesis is to ascertain the student's ability to collect a broad array of information and integrate this into a logical conceptual framework that traverses organizational levels of living systems. The thesis topic must be approved by the instructor. Prerequisites: senior standing and consent of instructor.

BIOL 487 Advanced Research (1-3)
Provides students with an individualized research experience on a topic approved and directed by a specific faculty member. A detailed report in the form of a scientific journal article must be provided to the instructor. May be repeated for up to 6 credit hours. Prerequisites: BIOL 482 or consent of instructor; BIOL 387 is highly recommended.

BIOL 493 Lab Teaching Practicum (1)
Assist in laboratory teaching to support instruction and enhance student learning. Prerequisite: Junior/senior standing or consent of instructor. Must have taken the course to be supported or have sufficient experience in other related courses. Prerequisites: Junior/ Senior status and consent of instructor.

BIOL 494 Seminar (1)
Current problems, topics, and research procedures in biological sciences and medicine. Topics announced each semester. Prerequisites: sophomore standing and consent of instructor.

BIOL 495 Independent Study (1-3)

BIOL 496 Topics (1-3)

BIOL 499 Internship (1-10)
Work experience obtained on a job where assignments are primarily biological projects. The amount of credit awarded is determined by the school based on the nature of the assignment. Prerequisites: biology major, senior standing with either a 2.80 GPA in major courses, completion of BIOL 482, or consent of instructor.

BIOL 507 Tropical Field Biology (5)
Field research techniques, ecology and natural history in lowland and montane tropical rainforests of Ecuador. Ten nine-hour labs and fifteen two-hour lectures conducted at biological field stations in Ecuador. Prerequisites: Undergraduate degree in biology or undergraduate degree in another field with primary or secondary teaching experience in science, and instructor consent.

BIOL 533 Marine Invertebrate Communities (3)
Techniques of collection and laboratory examination of marine invertebrates from intertidal and subtidal habitats. Design and execution of a research project and a written paper are required. Seven eight-hour labs and seven two-hour lectures will be conducted at a marine biological research station. Prerequisites: Undergraduate degree in biology or a related field and instructor permission.

BIOL 596 Topics: (1-5)

BUSINESS (BUGB)

BUGB 101 Introduction to Business (3)
American business system operations in the economy, business functions, and interrelations between the businessman and his environment. Prerequisites: Can be taken for credit only by students who have completed fewer than 15 credit hours of BUGB, ACCT, MANG, MARK, OFAD, HMGT, CISB, or FINA courses.

BUGB 101A Introduction to Business: Part 1 of 3 (1)
Introduction to management, supervision, motivation, supervision and the processes of recruiting personnel in the workplace.

BUGB 101B Introduction to Business: Part 2 of 3 (1)
Introduction to marketing, pricing, quality customer service, social responsibility and ethics in the workplace.

BUGB 101C Introduction to Business: Part 3 of 3 (1)
Introduction to financial statements, financial management, and budgeting in the workplace.

BUGB 105 Freshman Business Seminar (2)
Overview of Colorado Mesa University Business Department for prospective majors. Operational strategies and teamwork are developed via cases and projects. Students will gain exposure to all functional business areas through readings, discussions, and presentations. Cannot be taken for credit by students who have completed more than 15 credit hours of business courses.

BUGB 141 Business Mathematics (3)
Fundamental review of whole numbers, decimals, and fractions. Emphasis is placed on percentage applications to solving various business problems in the areas of buying and selling merchandise, inventory computations, interest computations on notes and savings, consumer credit and installment computation, home mortgage loans, and business depreciation computations.

BUGB 211 Business Communications (3)
Development of a non-defensive, supportive, communication system effectively applied to interpersonal and written transactions within the business organization. Prerequisite: ENGL 111.

BUGB 211A Business Communications: Part 1 of 3 (1)
Introduction to business communications, planning and writing messages and reports.

BUGB 211B Business Communications: Part 2 of 3 (1)
Introduction to effective communications in business, including presentations and routine, negative and persuasive messages.

BUGB 211C Business Communications: Part 3 of 3 (1)
Introduction to the roles of personal styles, cultures and teams in business communications.

BUGB 221 Insurance (3)
Common types of protection offered by insurance, including fire, theft, comprehensive, life, automobile, accident, and health. Emphasis on application of insurance to individuals and small business firms.

BUGB 231 Survey of Business Law (3)
Application of law as it applies to employees and individuals not dealing with legal matters of organizations. Topics include contracts, agency law, personal property, business organizations and form, and commercial paper. Especially suited for non-business majors. Students contemplating or enrolled in a four year degree program should take BUGB 349. No credit allowed if credit already established in BUGB 351.

BUGB 241 Income Tax (3)
Personal income tax, including filling out personal tax returns, exemptions, determining taxable income, adjustments to gross income, itemized deductions, rental income, depreciation, capital gains and losses. Not for students with an accounting emphasis.

BUGB 249 Personal Finance: The Business of Life (3)
Development of financial and economic literacy to improve personal decision making in the areas of: personal budgeting; developing a personal financial plan including consumer credit, taxes and purchasing a home; money and interest rates; the market economy; free enterprise and competition; and the consequences of externalities, public goods and increasing costs in the service sector.

BUGB 293 Cooperative Education (3-6)
Practical workplace experience under the joint supervision of the employer and the internship coordinator. Designed for non-business majors working in the business environment.

BUGB 340 Applied Financial Management for Emerging Businesses (3)
Overview of basic accounting and finance concepts for non-business majors owning or employed by small business/ entrepreneurial ventures.

BUGB 349 Legal Environment of Business (3)
Legal framework of business including foundations of the American legal system, anti-trust law, property law, contracts and sales, negotiable instruments, agency relationships, torts, labor law, international business law and the social environment of business. Prerequisites: junior or senior standing or consent of instructor.

BUGB 351 Business Law I (3)
Contracts (formation, requirements, interpretation, discharge, and enforcement), agency law, and other contracting parties. Includes analysis of the concept of personal property and an introduction to the partnership form of ownership. Prerequisites: junior or senior standing or consent of instructor.

BUGB 352 Business Law II (3)
Corporate form of ownership as artificial persons doing business; Uniform Commercial Code as the primary law covering sales (terms of sales contracts, product liability, performance, and breach); commercial paper (instruments used as a monetary substitute, such as checks, drafts, and promissory notes); credit (security interests in real and personal property); and real property. Prerequisite: BUGB 351 or consent of instructor.

BUGB 393 Cooperative Education (3-9)
Cooperative Education internships provide non-business students an opportunity to put their education to practical use in the workplace under the joint supervision of an organization-based supervisor and a Colorado Mesa University faculty coordinator. Written consent of coordinator required prior to registration.

BUGB 395 Independent Study (1-3)

BUGB 396 Topics (1-3)

BUGB 401 International Business (3)
Current international topics in the disciplines of finance, management, and marketing. Concepts, analytical tools, and models are introduced to help explain the diversity and complexity of the international business environment. Prerequisites: senior standing.

BUGB 440 Business Ethics (3)
Examination of the nature and role of ethics in the business environment.

BUGB 493 Cooperative Education (3-12)
See description of BUGB 393.

BUGB 495 Independent Study (1-3)

BUGB 496 Topics (1-3)

BUGB 500 Advanced Business Law and Ethics (3)
Emphasizes the regulations, statutes and cases that impact business on a daily basis. Topics covered include contract

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law, negotiations, labor law, the Uniform Commercial Code, and the law of business organizations to include limited liability companies.

BUGB 510 Global Business (3)
Explores international management concepts and procedures and their importance to modern managers. Operating in multi-national, multi-cultural managerial environment, the modern manager must understand business and management from a global perspective. Emphasis is placed on comparing and contrasting management practices in different nationstates and how this might affect decisions concerning risk, investment, human resources, finances, operations, manufacturing and production in a multi-national business.

BUGB 520 Seminar in Current Business Topics (1-3)
Develops topics of current interest in the business world. Areas included are effective communication strategies, ethics, and the global dimension of business.

BUGB 530 Research Design (3)
Examines the design of research projects. Topics will include selection of the problem, secondary data, historical research, descriptive research, experimental research, the tools of research, and interpretation of data.

BUGB 590 Thesis (6)

BUGB 595 Research Practicum (3)
The cooperative education course provides the student with the opportunity to apply classroom theory to on-the-job experiences related to classroom instruction. During the cooperative education course, the students work off-campus at professional business positions. The student will be required to write his/her own course objectives with the approval of the cooperative education graduate advisor. Prerequisites: ACCT 500, BUGB 500, FINA 500, MANG 500, MANG 501, MANG 510, MARK 500.

CHEMISTRY (CHEM)

✓ **CHEM 100 Chemistry and Society-GTSC1 (3)**
Introduction to selected topics in chemistry. Nonmathematical approach with frequent lecture demonstrations and particular attention to chemical technology and its impact on society.

✓ **CHEM 121 Principles of Chemistry-GTSC1 (4)**
✓ **CHEM 121L Principles of Chemistry Laboratory-GTSC1 (1)**
Introduction to fundamental principles of chemistry. Designed for students planning a major in science as well as students with a non-science major. Topics include atomic structure, bonding, periodic table, gas laws, mass relationships, solution theory, oxidation-reduction, electrochemistry, and ionic equilibrium. Four lectures and one three-hour lab per week. Prerequisite: mastery of high school algebra.

✓ **CHEM 122 Principles of Organic Chemistry-GTSC1 (4)**
✓ **CHEM 122L Principles of Organic Chemistry Laboratory-GTSC1 (1)**
Introduction to the chemical and physical properties of selected classes of organic compounds. Four lectures and one three-hour laboratory per week. Prerequisite: CHEM 121 or 131 or one year of high school chemistry and consent of instructor.

CHEM 123 Introduction to Environmental Chemistry (4)
Application of basic chemistry principles to the environment. Topics include aquatic and atmospheric chemistry, biogeochemical cycling of the elements required for life and structural organic chemistry as it applies to the physical and biological properties of persistent organic pollutants. Four lectures per week. Prerequisites: CHEM 121 and 121L.

✓ **CHEM 131 General Chemistry-GTSC1 (4)**
✓ **CHEM 131L General Chemistry Laboratory-GTSC1 (1)**
Fundamental principles of chemistry. Designed for students planning a major in science. Topics include atomic structure, bonding, periodic law, kinetic theory, gas laws, stoichiometry, phase relationships, solutions, oxidation-reduction, electrochemistry, and equilibrium. Four lectures and one three-hour laboratory per week. Prerequisites: One year of high school chemistry, mastery of algebra, and a passing score on the chemistry assessment exam. CHEM 131 and 131L are prerequisites for CHEM 132 and 132L.

✓ **CHEM 132 General Chemistry-GTSC1 (4)**
✓ **CHEM 132L General Chemistry Laboratory-GTSC1 (1)**
Fundamental principles of chemistry. Designed for students planning a major in science. Topics include atomic structure, bonding, periodic law, kinetic theory, gas laws, stoichiometry, phase relationships, solutions, oxidation-reduction, electrochemistry, and equilibrium. Four lectures and one three-hour laboratory per week. Prerequisite: one year of high school chemistry and mastery of high school algebra. CHEM 131 and 131L are prerequisites for CHEM 132 and 132L.

CHEM 151 Engineering Chemistry (4)
CHEM 151L Engineering Chemistry Laboratory (1)
Selected fundamentals of inorganic chemistry. Topics include stoichiometry, gas laws, phase relations, solutions, electrochemistry, and equilibrium. Designed for students of physics and engineering (except chemical engineering). Four lectures and one three-hour laboratory per week. Prerequisites: high school chemistry and satisfactory entrance examination scores or CHEM 121; MATH 113 or higher.

CHEM 196 Topics (1-3)

CHEM 211 Quantitative Analysis (3)
CHEM 211L Quantitative Analysis Laboratory (1)
Classical methods of analysis, treatment of experimental data, and the underlying logic of quantitative methods. Topics include gravimetric, volumetric, and potentiometric methods. Three lectures and one three-hour laboratory per week. Prerequisite: CHEM 132.

CHEM 296 Topics (1-3)

CHEM 300 Environmental Chemistry (4)
Aquatic and atmospheric chemistry. Basic chemical, physical and biological

properties of organic pollutants. Topics include smog formation, stratospheric ozone depletion, greenhouse gases, acid mine waste formation, biogeochemistry, and bioaccumulation of halogenated organics. Prerequisites: CHEM 122 or 132.

CHEM 311 Organic Chemistry (4)
CHEM 311L Organic Chemistry Laboratory (1)
Chemical and physical properties of the major classes of organic compounds. Three lectures and two three-hour laboratories per week. Prerequisite: CHEM 132 or consent of instructor.

CHEM 312 Organic Chemistry (4)
CHEM 312L Organic Chemistry Laboratory (1)
Chemical and physical properties of the major classes of organic compounds. Three lectures and two three-hour laboratories per week. Prerequisite: CHEM 132 or consent of instructor.

CHEM 315 Biochemistry (3)
CHEM 315L Biochemistry Laboratory (1)
Classical biochemistry concerned with the control of metabolism, the production of energy, the relationship of structure to function, carbohydrates, lipids, proteins, and nucleic acids. Three lectures and one three-hour laboratory per week. Prerequisite: CHEM 312/312L.

CHEM 321 Physical Chemistry I (3)
Application of methods of physics to chemistry. Study of equilibrium properties of bulk matter, quantum theory with applications to molecular structure. Statistical mechanics used to understand the microscopic origin of thermodynamic laws. Calculations of macroscopic thermodynamic properties made from molecular properties. Connection made in kinetics between thermodynamics, quantum theory and statistical mechanics for study of time-dependent processes. Prerequisites: CHEM 132 and MATH 152, and either PHYS 112 or PHYS 132.

CHEM 322 Physical Chemistry II (3)
Application of methods of physics to chemistry. Study of equilibrium properties of bulk matter, quantum theory with applications to molecular structure. Statistical mechanics used to understand the microscopic origin of thermodynamic laws. Calculations of macroscopic thermodynamic properties made from molecular properties. Connection made in kinetics between thermodynamics, quantum theory and statistical mechanics for study of time-dependent processes. Prerequisites: CHEM 132 and MATH 152, and either PHYS 112 or PHYS 132.

CHEM 341 Advanced Laboratory I (2)
Experiments from analytical, inorganic, organic, physical, and biological chemistry designed to show the application of theory to chemical problems. In addition to a list of possible core experiments, each student chooses other experiments according to individual interests. Two three-hour laboratories per week. Prerequisites: CHEM 211/211L; 312/312L; and 321.

CHEM 342 Advanced Laboratory II (2)
Experiments from analytical, inorganic, organic, physical, and biological chemistry designed to show the application of theory to chemical problems. In addition to a list of possible core experiments, each student chooses other experiments according to individual interests. Two three-hour laboratories per week. Prerequisites: CHEM 211/211L; 312/312L; and 321.

CHEM 395 Independent Study (1-3)

CHEM 396 Topics (1-3)

CHEM 397 Structured Research (1-3)
Chemical research under the direct guidance of a faculty member. Designed for sophomore through senior level students. Prerequisite: Permission of instructor.

CHEM 411 Main Group Elements (3)
A study of the periodic trends in non-transition elements. Topics include atomic and molecular structure, periodicity, acid-base relationships, and the descriptive chemistry of nontransition elements. Prerequisite: CHEM 322.

CHEM 412 Transition Elements (3)
A study of the periodic trends in transition elements. Topics include coordination compounds, symmetry and group theory, spectroscopy, and the descriptive chemistry of the transition elements. Prerequisite: CHEM 411.

CHEM 421 Advanced Organic Chemistry I (3)
Selected topics in organic chemistry are discussed in detail. Prerequisites: CHEM 312, 322.

CHEM 422 Advanced Organic Chemistry II (3)
Similar in content to CHEM 421, but without overlap in topics. CHEM 421 is not a prerequisite for 422. Prerequisites: CHEM 312, 322.

CHEM 431 Instrumental Analysis (3)
Modern instrumental methods of analysis. Topics include signals and noise, atomic spectroscopy, molecular spectroscopy, electroanalytical chemistry and chromatographic separation methods. Three lectures and one 3-hour laboratory per week. Prerequisite: CHEM 211/211L.

CHEM 431L Instrumental Analysis Laboratory (1)
Modern instrumental methods of analysis. Topics include signals and noise, atomic spectroscopy, molecular spectroscopy, electroanalytical chemistry and chromatographic separation methods. Three lectures and one 3-hour laboratory per week. Prerequisite: CHEM 211/211L.

CHEM 482 Senior Research I (2)
A formal research project undertaken with the guidance of a faculty member. The results will be presented as a formal scientific paper in a format suitable for publication.

CHEM 483 Senior Research II (2)
A formal research project undertaken with the guidance of a faculty member. The results will be presented as a formal scientific paper in a format suitable for publication.

CHEM 494 Seminar (1)
Student, faculty, and other speakers present a variety of topics in chemistry and related fields. Prerequisites: Chemistry major with senior standing or consent of instructor.

CHEM 495 Independent Study (1-3)

CHEM 496 Topics (3)

CHEM 596 Topics: (1-3)

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

COMPUTER-AIDED DRAFTING TECHNOLOGY (CADT)

CADT 101 Introduction to Computers (1)
Introduction to hardware and software including operating systems, word processing, spreadsheets, desktop publishing and presentation software.

CADT 105 Print Reading - Residential, Commercial, Industrial (3)
Reading and interpreting blueprints for residential, commercial, and industrial construction, including site plans. How to do a project take-off and project site layout.

CADT 106 Computer Aided Design (3)
Basic principles of computer aided design through the development of practical drawing problems using a computer. One one-hour lecture and two one and one-half laboratories per week. Corequisites: MAMT 105 and MAMT 106.

CADT 107 Advanced Computer Aided Design (3)
Advanced work in computer aided drafting principles including 2-D, 3-D, shading, etc. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisites: CADT 106, or consent of instructor.

CADT 108 CAD - Mechanical (3)
Offers the student basic principles of computer aided drafting through the development of practical drawing problems using CAD software on the computer. One one-hour lecture and two one and one-half laboratories per week.

CADT 109 CAD-Mechanical Advanced (3)
Advanced work in computer aided drafting principles including 2-D and 3-D shading, solid based modeling and parametric modeling. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisite: CADT 108.

CADT 110 CAD Application (4)
This course offers the student an opportunity to apply skills and knowledge gained in earlier courses. The student will work on computer aided drawings relating to their career field of interest and advice of faculty. Internship or cooperative education may be substituted with approval of advisor. Two one-hour lectures and two one and one-half hour laboratories per week. Prerequisites: CADT 107 and CADT 109.

CADT 120 Introduction to Still Images (3)
Students study the fundamentals of the animation software, identify and understand the command panels, toolbars, and special controls of the software's functional features, design and create 3D modeled drawings that are animated and rendered scenes. Course work will include lecture, lab, and presentation of 3D drawings. Prerequisites: CADT 107 or CADT 109.

CADT 130 CAD-Civil (3)
Civil drafting will explore the aspects of current day mapping and topography, instruments, conventions and practices, contours, traverses, profiles, surveying, and photogrammetry through CAD drawings. Students will be introduced to GIS, graphical interface systems. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisites: CADT 107 or CADT 109.

CADT 135 CAD Civil II (3)
Exploration of advanced aspects of current day mapping and topography. An in-depth instruction on road plan and profiles, cut and fill techniques and further instruction using skills from CADT 130. Prerequisite: CADT 130.

CADT 140 CAD - Architectural Theory (2)
Architectural theory will introduce the student to three major areas of architecture: basic structures and their design, building codes and career opportunities. Corequisites: CADT 141, 142 and 142L.

CADT 141 Structural Materials (3)
This course will identify the properties and applications of the materials of industry. Codes, standards and testing will be emphasized in the fields of architecture. There will be an introduction to mechanical, electrical, plumbing and systems requirement. Corequisites: CADT 140 and 142.

CADT 142 CAD - Residential Architecture (3)
Residential Architectural CAD will provide the student with a realistic residential project that will begin with schematic design and take him/her through to construction documents. Construction documents will include: site plan, floor plan, exterior elevations, foundation plan, floor framing plan, roof framing plan, building section, and a variety of construction details. One one-hour lecture and two one and one-half hour laboratories per week. Corequisites: CADT 140 and 141. Prerequisites: CADT 107 or CADT 109.

CADT 143 CAD-Commercial Architecture (3)
Commercial Architectural CAD will emphasize the creation of commercial project plans that will begin with schematic design and continue through to construction documents. Construction documents will include site plan, foundation floor slab plan, roof framing plan, building section and a variety of construction details. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisites: CADT 107, and/or CADT 109, and CADT 140.

CADT 150 Advanced Images - Introduction to Animation (4)
Advanced work in computer aided drafting principles including 3-D renderings and animation techniques. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisite: CADT 120.

CADT 195 Independent Study (1-3)

CADT 196 Topics (1-3)

CADT 296 Topics (1-3)

COMPUTER INFORMATION SYSTEMS (CISB)

CISB 101 Business Information Technology (3)
Introduction to computing and software, including computing systems in a business environment and applicable software.

CISB 205 Advanced Business Software (3)
Use of electronic spreadsheets and database management software.

Certain courses are only offered during the fall or spring semesters, or may be available only in alternating years. It is the student's responsibility to meet with their advisor and/or check the two-year course planning calendar on the Colorado Mesa University website for course availability. Learn more at **coloradomesa.edu/academics.**

Lectures, demonstrations, and hands-on projects. Developing customized applications with macros in spreadsheets. Creating tables, reports, forms, and queries to creating appropriate relationships and developing customized database software applications. Prerequisite: CISB 101 or permission of instructor.

CISB 206 Business Database Application Programming (3)
Continuation of CISB 205. Emphasis on solving problems through application programming in a relational database management system. Prerequisite: CISB 205.

CISB 210 Fundamentals of Information Systems (3)
Exploration of information systems in a business environment. Use of information systems to improve business processes and organizational goals. Introduction to hardware, software, ethical issues, career opportunities, and organizational uses of information systems. Prerequisite: CISB 101 or CISB 205, or permission of instructor.

CISB 241 Introduction to Business Analysis (3)
Introduction to descriptive, predictive and inferential analysis techniques, data interpretation, business research skills, and techniques for analysis and modeling of business problems in the workplace. Prerequisite: MATH 113 or higher.

CISB 260 Information System Architecture (3)
Principles and applications of information systems hardware and systems software. Theoretical underpinnings, installation, configuration, and operation emphasized. Prerequisite: CISB 210.

CISB 295 Independent Study (1-3)

CISB 305 Solving Problems Using Spreadsheets (3)
Critical analysis and problem solving using tools in spreadsheets. Decision support utilizing spreadsheet tools covered by hands-on cases, book tutorials and lecture materials. Structured problems, semi-structured problems and what-if scenarios explored. Prerequisites: CISB 101 or CISB 205 or instructor permission.

CISB 306 Solving Problems Using Databases (3)
For students who have minimal background in databases. Assists in understanding the importance of data management in organizations through hands-on experience in solving business problems using relational database management software. Prerequisites: CISB 101 or CISB 210, or permission of instructor.

CISB 331 Advanced Business Programming (3)
Procedural and object-oriented software engineering methodologies using modern business languages. Emphasis on data definition and measurement, record and file processing, report generation and other traditional business information systems applications using modern methods of top-down, structured design. Other concepts include developing screen editors, abstract data types, and data structures including sequential, random and indexed files. Prerequisite: CISB 206 or CSCI 110.

CISB 341 Quantitative Decision Making (3)
Application of inferential statistics to realistic business situations; use of quantitative tools to enhance business decision-making ability. Descriptive statistics for data summarization, probability theory, distributions, estimation, and index numbers with emphasis on hypothesis testing, analysis of variance, regression/correlation, time series, and introduction to operations research and linear programming. Prerequisites: MATH 113 or higher, and STAT 200.

CISB 392 Information Systems Theory and Practice (3)
Exploration and application of Information System theory for organizational success. Examination of managerial, user, and IS professional roles within information systems. Prerequisite: CISB 210.

CISB 393 Cooperative Education (3-12)

CISB 395 Independent Study (1-3)

CISB 396 Topics (1-3)

CISB 400 Data Communications and Network Management (3)
Exploration of modern telecommunication and networking technologies. Issues related to network media, including cost, design and management of LANs and WANs addressed. How networks and networking provide and enhance business communications. Networking standards, standards organizations, security, privacy, installation and configuration issues will be in classroom discussions with hands-on assignments. Prerequisite: CISB 260 or TECI 260.

CISB 442 Systems Analysis and Design (3)
Analysis and logical design of information systems. Practice in project management during team-oriented analysis and design of a departmental level system. Prerequisite: CISB 210, and CISB 206 or CSCI 110.

CISB 451 Database Administration (3)
Continuation of CISB 442 Systems Analysis and Design. Covers development and implementation of conceptual and detailed physical system design using proper database tools and methods. Prerequisites: CISB 205 and CISB 442 and ACCT 202.

CISB 460 Electronic Commerce Systems (3)
Comprehensive examination of electronic commerce, how it is conducted and managed, and its opportunities, limitations, issues and risks. Coverage of technological infrastructure that supports e-commerce systems, plus the implications of such systems in the business environment. Exercises include exploration of e-commerce web sites and features, plus discussion and demonstration of state-of-the art e-commerce tools. Prerequisite: CISB 210 or permission of instructor.

CISB 470 Management of Information Systems (3)
Reviews the development of analyzing information use by organizations with different types of information systems. The conceptual foundations of information systems and the development, operation, management, uses, parties, control, structure, and

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impact of these systems will be addressed. Analysis and design of information systems is stressed through case study projects, emphasizing the role of computing in information systems and design of computer-based systems, expert systems, decision support systems and executive information systems. Prerequisites: Junior or senior status.

CISB 471 Advanced Information Systems (3)
Capstone course for the BS in CIS. Integrates management information needs, decision-making criteria, and design of interactive user interfaces. Design and development of computerized management control systems for major functional modules of an organization investigated, utilizing database management systems, distributed processing and structured systems development. Prerequisites: CISB 331, CISB 392, CISB 400, CISB 442, CISB 451 and CISB 460, or consent of instructor.

CISB 491 Directed Readings in Computer Information Systems (1-3)
Study of a leading edge topic within Computer Information Systems under direction of CIS faculty. Prior to registering, the student must meet with the CIS instructor to determine a topic and a method for reporting. For each credit hour registered, the student will read and report on at least 200 pages of scholarly readings. Prerequisites: CIS major, junior or senior status, and permission of instructor.

CISB 493 Cooperative Education (3-12)

CISB 495 Independent Study (1-3)

CISB 496 Topics (1-3)

CISB 500 Management of Information Systems (3)
Reviews the development of an overall framework for analyzing the use of information by organizations along with examples of different types of information systems. The conceptual foundations of information systems and the development, operation, management, uses, parties, control, structure, and impact of these systems will be addressed. The analysis and design of information systems is stressed through case study and projects, emphasizing the role of computing in information systems and design of computer-based systems, expert systems, decision support systems and executive information systems.

CISB 560 Electronic Commerce Systems (3)
A comprehensive examination of the modern paradigm of electronic commerce, how it is conducted and managed, and its major opportunities, limitations, issues, and risks. Coverage of technological infrastructures that support e-commerce systems, plus the implications of such systems in the business environment. Exercises will include exploration of e-commerce web sites and features, plus discussion and demonstration of state-of-the-art e-commerce tools. Prerequisite: Graduate status at Colorado Mesa University.

COMPUTER SCIENCE (CSCI)

CSCI 100 Computers In Our Society (3)
The impact of computers on society and individuals; purpose and use of software integrated systems. Intended for students in disciplines outside the natural sciences and mathematics.

CSCI 106 Web Page Design I (3)
Aspects of Web page design such as HTML, Web servers, Web graphics/sound/video, and programs that automate the design of Web sites and scripts. Students will progressively develop their own sites throughout the term using software tools and concepts presented in the class. Prerequisites: Familiarity with Windows.

CSCI 110 Beginning Programming (3)
Introduction to computer programming. Includes syntax and semantics for sequential, selection, and repetition structures, program design and modularization simple and structured data types, and file I/O. Designed for majors outside the scientific disciplines. "Subtitle" indicates language of implementation. Prerequisites: MATH 110 OR MATH 113 (either may be taken concurrently) or consent of instructor.

CSCI 110L Beginning Programming Laboratory (1)
An optional laboratory course to be taken as a co-requisite to CSCI 110. This lab is intended for those students currently enrolled in CSCI 110 who have little or no previous programming/computer experience. The student taking this course will complete several computer assignments designed to increase the student's knowledge of programming, debugging, and program design. "Subtitle" indicates language of implementation. Prerequisites: MATH 113 or consent of instructor. Corequisite: CSCI 110.

CSCI 111 CS1: Foundations of Computer Science (4)
Introduction to problem solving techniques with emphasis on modularity, abstraction, analysis, and correctness of algorithm design. Using C/C++ language as a tool, topics covered include data types, control structures, I/O, and functions. Prerequisite: MATH 113 (may be taken concurrently) or consent of instructor.

CSCI 112 CS2: Data Structures (4)
Continuation of CSCI 111 with emphasis on algorithm design and analysis, procedural abstraction, data abstraction, and quality programming style. Topics covered include distinction between dynamic and static variables; various implementations of elementary stacks, queues, trees and lists; comparison of recursive and iterative algorithms; program correctness; and hierarchical design principles. Programming exercises will focus on modularity of design and data abstraction. Prerequisites: CSCI 111.

CSCI 130 Introduction to Engineering Computer Science (3)
Introduces the use of computers in engineering problem solving and elementary numerical methods. Learn programming fundamentals, including data and algorithm structure, and modular programming. Numerical methods learned include solving single, nonlinear equations, fixed-point iteration, Gaussian elimination, and linear regression. Prerequisite: MATH 151 (may be taken concurrently).

CSCI 196 Topics (1-3)

CSCI 206 Web Page Design II (3)
A continuation of CSCI 106. Students will learn a scripting language and how to incorporate scripts in web page design. Prerequisites: CSCI 106 or permission of instructor.

CSCI 241 Computer Architecture and Assembly Language (4)
Architecture of a representative processor and its assembly language, introduction to hardware description language, register transfers and sequence control, realization of fetch, address, branch and execute cycles, start, stop and reset the computer, interrupt and memory mapped input-output, peripherals and interfacing. Prerequisite: CSCI 112.

CSCI 250 CS3: Introduction to Algorithms (3)
Complexity analysis and program performance; abstract data types such as lists, trees, stacks and queues; sorting; searching and hashing. Prerequisite: CSCI 112.

CSCI 296 Topics (1-3)

CSCI 306 Web Page Design III (3)
Continuation of CSCI 206. Students will consider web site management issues, server-side scripting, security, and database interactions. Prerequisite: CSCI 206 or consent of instructor.

CSCI 310 Advanced Programming: (1-3)
Exploration of a higher level programming language for CSCI/CISB majors. Specifics will vary with the language covered. Prerequisite: CSCI 111 or CSCI 110.

CSCI 321 Assembly Language Programming (3)
Introduction to assembler, creating and executing assembly language program, organization of machine under study, data definition, addressing techniques, data movement instruction, branching instructions, flag and PSW registers, arithmetic instructions, macros and their implementation, hardware and software interrupts, storing instructions, typical applications. Prerequisites: CSCI 241.

CSCI 322 Embedded Systems (3)
Introduction to design of embedded systems. Topics include: basic computer electronics, embedded digital communications, and embedded software design. Prerequisite: CSCI 321.

CSCI 330 Programming Languages (3)
Principles and concepts which characterize various classes of high-level, computer programming languages are covered. Topics will include syntax and semantic issues, data types/classes, control structures, binding, and storage allocation. Prerequisites: CSCI 250.

CSCI 333 UNIX Operating Systems (3)
Introduction to systems programming with UNIX. Topics covered include elementary and advanced user commands, file handling, process control, library routines, device drivers, shell programming, and UNIX utilities. Prerequisites: CSCI 112 or knowledge of C++/C.

CSCI 337 User Interface Design (3)
Examination of user interface design (UID) principles. They include rules of perception, systems analysis, user analysis, good design principles, and testing and evaluation of designs. Using an appropriate Rapid Application Development tool, students will design a major project emphasizing UID concepts. Prerequisite: CSCI 250.

CSCI 345 Video Game Design (3)
Exploration of game engine and development theory. Emphasis is on rendering, physics simulation, artificial intelligence, and optimization techniques used in the modern game construction. Students will develop at least three games during the semester. Prerequisite: CSCI 112.

CSCI 370 Computer Security (3)
Networked-computer security, suitable for both CS and CIS majors. Topics include security framework, access control and site security, firewalls, attack methods, elements of cryptography and cryptographic systems, incidence response, security in e-commerce and e-mail, management and policy decisions for security. Prerequisites: CSCI 250 or CISB 400.

CSCI 375 Object Oriented Programming (3)
Advanced programming techniques using the object-oriented paradigm, with emphasis on abstractness of design, encapsulation, inheritance, and polymorphism. Additional topics include design tools and methodologies for determining classes, responsibilities, collaborations, and hierarchies. Prerequisites: CSCI 250.

CSCI 380 Operations Research (3)
Methods of linear and dynamic programming, inventory and replacement models, queuing theory, game theory, PERT, CPM, and simulation. Prerequisites: MATH 152, STAT 200, CSCI 111.

CSCI 393 Internship (1-3)
The internship course provides the student with the opportunity to apply classroom theory to on-the-job experiences. During the internship course, the student will work at approved professional positions related to the computer science field. The student will be required to write and fulfill course objectives with the approval of the internship coordinator. Prerequisites: Junior standing, written consent of internship coordinator.

CSCI 395 Independent Study (1-3)

CSCI 396 Topics (1-3)

CSCI 445 Computer Graphics (3)
Introduction to the use of the computer to produce images: two and three dimensional graphics, algorithms and data structures for hidden lines and surfaces, shading, and reflections. Prerequisites: MATH 152 and CSCI 250.

CSCI 450 Compiler Structure (3)
Structures and techniques used in compiler writing are discussed with emphasis on scanners, symbol tables, parsers and code generation. The front end of a recursive descent parser is written for the semester project. Error analysis and code optimization are discussed as time permits. Prerequisites: CSCI 321. Corequisite: CSCI 330.

CSCI 460 Database Design (3)
Design and implementation of relational databases. Approaches and methods

of design and normalization, SQL, integrity, and security will be discussed. Prerequisite: CSCI 250.

CSCI 470 Operating Systems Design (3)
Aspects of computer operating system design and implementation including memory management, processor management, device management, information management and performance evaluation methods. Some knowledge of C is required. Prerequisite: CSCI 250, 321.

CSCI 480 Theory of Algorithms (3)
Techniques for analyzing time and space requirements of computer algorithms. Models are set up for analysis and techniques are applied to algorithms related to sorting and searching, pattern-matching, graph problems and other selected problems. The notion of NP-hard problems is introduced and related problems are discussed. Prerequisites: MATH 152, CSCI 250.

CSCI 482 Theory of Computation (3)
Computability and automata theory introduced. Regular expressions, finite and pushdown automata, Turing machines, grammars and their relationship to automata, Church-Turing hypothesis, incomputable and undecidable functions and equivalence of computability models are covered. Prerequisites: MATH 369, CSCI 250.

CSCI 484 Computer Networks (3)
Topics include: hardware technology for local and long haul networks, circuit and packet switching, interface between computer and network hardware, network architectures and protocols, routing, congestion and flow problems, queuing theory, and reliability issues. Instructors may choose to implement a sample network in which case the contents may be particularized to that network.

CSCI 486 Artificial Intelligence (3)
Introduction to artificial intelligence programming with study of topics such as knowledge representation, expert systems, solution space search, non-deterministic algorithms (neural nets, genetic algorithms), etc. Programs will be written in a selected AI programming language such as Lisp or Prolog. Prerequisite: CSCI 250.

CSCI 490 Software Engineering (3)
Exploration of the philosophy of software engineering. Software project planning, requirement analysis, software system design and strategies, software design tools, program and system testing, system maintenance, and economics are examined. Prerequisites: CSCI 250 and CSCI 330.

CSCI 494 Seminar (1-3)
Discussions of specialized topics by students, faculty, or visiting professors. One or two one-hour meetings per week.

CSCI 495 Independent Study (1-3)

CSCI 496 Topics (1-3)

CONSTRUCTION MANAGEMENT (CONM)

CONM 181 Principles of Construction Management (3)
Construction industry practice emphasizing business organization and management techniques. Includes principles of management, organizational environments, decision-making, design, technology, leadership, and basic construction management with terminology, estimating and scheduling. This course replaces MANG 201 requirements for Construction Management majors only. It does not substitute for MANG 201 in any other way. Prerequisite: CONC 101.

CONM 316 Construction Materials and Methods (3)
Materials and methods utilized in design and construction of vertical and horizontal projects. Course addresses proper construction methods and governing trade association standards. Sustainability and ethics relating to specification, ordering, and installation of construction materials incorporated. Prerequisites: CONC 104, CONC 208, and CONC 251.

CONM 340 Construction Estimating (3)
Application of industry-recognized methods of construction estimating to compile conceptual systems and detailed estimates. Emphasis on students' ability to communicate estimate results in written and oral presentations. Prerequisites: CADT 105, CONC 208, CONC 228, CONC 251, and CONM 316.

CONM 361 Advanced Building Systems (3)
Electrical, heating, ventilation, air conditioning, plumbing, and fire suppression. Emphasis on design, operation, and interaction. Principles of codes, design, methods and materials as applicable to the construction industry included. Building system controls for smart buildings integrated in each component. Prerequisite: CONC 161.

CONM 362 Structure Analysis - Statics/ Materials Strength (3)
Behavior of structural components and systems plus a broad overview of structural engineering analysis/design process. Principles of statics and strength of materials including properties of materials, forces, equilibrium, stresses and strains studied. Emphasis on understanding behavior of structural components associated with construction processes. Prerequisites: STAT 200, MATH 141, PHYS 112, and PHYS 112L.

CONM 370 Managing Safety and the Regulatory Environment (3)
Impact of safety on the construction industry, in-depth discussions concerning application of O.S.H.A. Safety and Health Standards for the Construction Industry. Course emphasis on safety management training for jobsite supervisory personnel. Additionally, various regulatory requirements encountered in construction addressed. Prerequisite: Junior status.

CONM 401 Construction Financial Management (3)
Contract methods for recognizing revenue and its impact on financial statements. Analysis of financial statements and their use in developing budgets, projecting cash needs, pricing construction projects and forecasting impact of business decisions on profit addressed. Prerequisite: FINA 301.

CONM 462 Soil and Foundation Construction (3)
Properties of subsurface materials and principles of subsurface construction. Topics include soil classification and testing, soil mechanics, earthmoving operations and foundation systems from a contractor's perspective. Techniques of subsurface investigations and subsequent interpretation of soil reports studied to understand foundation construction methods and related field problems. Prerequisite: CONM 362.

CONM 472 Planning and Scheduling (3)
Planning, scheduling and controlling construction operations. Emphasis on the planning phase of construction projects, logic diagrams, network-based scheduling techniques, and computer-assisted scheduling. Application of industry-recognized scheduling methodology to construction projects. Emphasis on communicating project schedules in written and oral presentations. Prerequisite: CONC 265.

CONM 480 Project Management (3)
Exploration of professional practice as a constructor requiring understanding of working and contractual relationships among all participants in any project process. Required participation in construction simulation involving initial planning to project completion (includes budgets, estimating, scheduling, financing and creating contracts, and other construction forms as necessary). Prerequisites: CONM 340 and CONM 401.

CONM 485 Construction Management Issues (3)
Issues facing the professional constructor. Integration of project management includes field study, research, case readings, problem solving, and project deliverables. Prerequisites: BUGB 349, CONM 340, CONM 401, CONM 472, CONM 480, senior status, and permission of instructor.

CONM 496 Topics: (1-3)

CONM 499 Construction Internship (1-6)
University/construction industry partnership to provide real-life working experiences. The internship program's primary purpose is to prepare the construction management student with leadership responsibilities in a technologically oriented, diverse, dynamic and global construction environment. Prerequisites: Senior status and consent of instructor.

CONSTRUCTION TECHNOLOGY (CONC)

CONC 100 Introduction to the Trades (1)
Introduction to construction work for all crafts. Reviews history of the trade, describes apprentice programs, identifies career opportunities for construction workers, and addresses the attributes and characteristics workers should possess.

CONC 101 Construction Safety and Regulations (3)
Construction safety and its effect on productivity and employee morale. Application of basic principles of accident prevention. Complying with the various federal, state, and local laws governing safety (OSHA), hazardous chemicals, and drugs in the work place.

CONC 102 Electrical Safety (1)
Introduction to safety rules and regulations for trainees entering the construction trades. Necessary precautions for various electrical hazards found on the job. OSHA mandated lock/tag out procedures.

CONC 103 Rigging Safety Basic (1)
Introduction to the safe use of slings, hardware, hoists, and hitches used in rigging operations. Also highlights critical safety issues and accepted rigging techniques and practices.

CONC 104 Architectural/Civil Print Reading (2)
Reading and hand-drafting prints as used in industry, application of that information to various architectural and civil industries.

CONC 116 Building Materials (3)
Introduction to building materials and methods commonly used today. Includes interior and exterior materials from foundations to roof systems.

CONC 117 Building Materials Testing (3)
Introduction to the properties and testing of materials used in today's construction projects. This includes wood products, metal, soil, aggregates, concrete, and asphalt. Prerequisites: CONC 116 or Instructor permission.

CONC 120 General Construction Framing (2)
Basic framing methods and materials utilizing a hands-on framing lab. The basics of wood and metal framing. Other methods of construction such as Masonry, EIFS, and Stucco construction also covered.

CONC 121 Floor Framing (2)
Cover framing basics as well as the procedures for laying out and constructing a wood floor using common lumber as well as engineered building materials. Prerequisite: Instructor permission.

CONC 122 Wall and Ceiling Framing (2)
Focus on the procedures for laying out and framing walls and ceilings, including roughing-in door and window openings, construction corners and partition T's, bracing walls and ceilings, and applying sheathing. Prerequisite: Instructor permission.

CONC 125 Roof Framing Materials and Methods (2)
Introduction to the application techniques and estimation of asphalt and wood roofing products and accessories including gutters and flashing. Prerequisite: Instructor permission.

CONC 130 Windows & Exterior Doors (2)
Identification of various types of windows, skylights, and exterior doors. Provides instructions for installation. Instruction for installing weather-stripping and locksets. Prerequisite: Instructor permission.

CONC 131 Exterior Trim (1)
Cornice and rake construction, corners, windows, and door trim. Installation of soffits, fascia and similar trim items and the estimating and selection of proper materials. Prerequisite: Instructor permission.

CONC 140 Stair Construction/Layout (2)
Wooden stairs used in residential and commercial construction and procedures for laying out stairs, cutting out stringers and installing and finishing stairs. Prerequisite: Instructor permission.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

CONC 147 General Interior Finishes/ Trim (2)
An overview of interior finishes including general painting and wall coverings. Installation and finishing of drywall and suspended ceilings. Material choices and installation techniques of various interior trim, including doors, baseboard, and casement. Prerequisite: Instructor permission.

CONC 161 Building Mechanical/ Electrical (3)
Introduction to basic electrical, plumbing, heating, ventilation, and air conditioning systems found in residential and commercial building. Basic theory and design concepts included. Prerequisite: Instructor permission.

CONC 196 Topics (1-3)

CONC 201 Building Permits, Codes, Ethics (1)
Introduction to the basic concepts of code enforcement and governmental regulations concerning building and the process through which these regulations are enforced. Also aspects of the trade and how to assure an ethical approach when dealing with owners/customers, contractors, and suppliers in meeting industry-building standards.

CONC 202 Introduction to Concrete Materials (1)
Describes the properties, characteristics, and uses of various types of cement, aggregates, and other materials that, when mixed together, form different types of concrete. Procedures for concrete volume estimates and testing of freshly mixed concrete are covered.

CONC 203 Concrete Placing & Finishing (2)
Tools, equipment, and procedures required for handling, placement, and finishing of concrete at the job site. Safety procedures for handling, placing, and finishing concrete are emphasized. Prerequisite: Instructor permission.

CONC 205 Job Site Layout & Measuring (2)
Job-site layout as outlined on a set of blueprints for a given construction site. Includes complex plot plans and multi-unit site layouts. Prerequisite: Instructor permission.

CONC 208 Construction Equipment (3)
Basic understanding of general equipment and methods employed in different sectors of the construction industry. Areas covered are factors affecting the selection of equipment, rental versus ownership of equipment, estimating earthwork quantities, figuring equipment production, equipment management, and quality control of projects.

CONC 215 Form and Foundation Systems (2)
Construction of forms for continuous, stepped continuous, pier, and concrete foundations. Also covered are edge forms used for on-grade concrete slabs and similar structures. Forming terms, parts of forms, and the procedures for construction of basic footing and edge forms are included. Prerequisite: Instructor permission.

CONC 218 Surveying (3)
The fundamentals of modern plane surveying techniques and basic surveying instruments. Emphasis on construction-related aspects of surveying and the development of skills in using surveying field information. Prerequisites: UTEC 107 or MATH 113

CONC 228 Estimating and Cost Control (3)
The estimation process, the role of the estimator, types of estimation, CSI Divisions, bid/contract documents, change order pricing, value engineering, design build projects, and estimate compilation and cost controls. Prerequisites: CADT 105, CONC 116, CONC 161, CONC 208 or instructor permission.

CONC 234 Commercial/Industrial Plans (2)
Introduction to the commercial/industrial construction industry. Processes, practices, and materials typically used in commercial/industrial construction will be studied.

CONC 235 Thermal and Moisture Methods and Materials (1)
Selection and installation of various types of insulating materials in walls, floors, and attics. Covers the uses and installation practices for vapor barriers and waterproofing materials.

CONC 245 Project Management (3)
Principles of project planning, scheduling, estimation and management. Emphasis on the basic skills required to supervise personnel including oral communication, problem identification, problem solving and decision-making. The course will also cover how to control productivity on the project. Prerequisites: CONC 228 or instructor permission.

CONC 251 Construction Prep: Codes, Permits (3)
Legal aspects including liens, contracts, bids, specifications, building permits and licensing, inspections and the Uniform Building Code. Introduces intra-trade coordination, remodeling and additions, construction practices, construction management and supervision.

CONC 253 Cabinets & Countertops (3)
Selection, installation, and terminology of factory built cabinets and countertops. Includes various types and design, and examines estimation of cost of cabinets and installation. Prerequisites: instructor permission.

CONC 265 Planning and Scheduling for the Construction Supervisor (3)
Planning the sequence, duration and relationship of activities for a construction process. Communicate the plan to contractual parties and to use the plan as reference point for examining project changes. Includes planning for safety, organization, manpower, problem solving, and site layout. Prerequisites: instructor permission.

CONC 270 Practical Applications (4)
Supplemental coursework with practical work experience related to educational program. Students will work under the immediate supervision of experienced personnel at the business location. Students will work on construction sites or projects related to their career field of interest with advice of faculty. Prerequisite: instructor permission.

CONC 296 Topics (1-3)

Certain courses are only offered during the fall or spring semesters, or may be available only in alternating years. It is the student's responsibility to meet with their advisor and/or check the two-year course planning calendar on the Colorado Mesa University website for course availability. Learn more at **coloradomesa.edu/academics.**

CRIMINAL JUSTICE (CRMJ)

CRMJ 201 Introduction to Criminal Justice (3)
Philosophy, history and development of the American criminal justice system. Survey of the role of law enforcement agencies, the courts, jails, prisons, probation and parole in both juvenile and adult systems.

CRMJ 296 Topics (1-3)

CRMJ 301 Criminal Procedure (3)
Analysis of landmark U.S. Supreme Court cases and their impact on operating procedures of law enforcement and the courts. Focuses on Fourth, Fifth, and Sixth Amendments to the U.S. Constitution. Prerequisites: CRMJ 201 or POLS 101 or consent of instructor.

CRMJ 302 Ethics in Criminal Justice (3)
Examination of ethics in the criminal justice system from investigation, arrest, prosecution, defense, and corrections. Prerequisite: CRMJ 201.

CRMJ 310 The Police Process (3)
Basic features of policing in the United States. Police work, police organizations, police officers, and the critical problems facing policing today are examined in social and political context. Prerequisite: CRMJ 201.

CRMJ 311 Victimology (3)
Study of crime victims, their numbers, common characteristics, and roles they play in their own victimization. Legal, psychological, and social perspectives explored. Various theoretical explanations regarding both first-time and repeat victimizations discussed. Prerequisite: CRMJ 201.

CRMJ 315 Research Methods in Criminal Justice (3)
Research methods and their application to Criminal Justice. Prerequisite: CRMJ 201, and STAT 200 or STAT 215.

CRMJ 320 Corrections (3)
The role of corrections in the criminal justice system: history, guiding philosophies and theories, treatment approaches, custody issues, and supervision of offenders on probation and parole. Prerequisite: CRMJ 201 or consent of instructor.

CRMJ 321 Forensic Science for Criminal Justice (3)
Advanced overview of current issues, techniques, practices, and investigative strategies related to criminal forensics. Specific skills used in crime scene processing and analysis, medico-legal examination, and courtroom testimony developed. Prerequisite: CRMJ 201.

CRMJ 328 American Court Systems (3)
The American court system; local, state, and national, including consideration of the impact of prosecutors, defense personnel, judges, and other factors on court decisions and the criminal justice system. Prerequisites: POLS 101 or ADJU 101.

CRMJ 370 Criminology (3)
Major paradigms in the field of criminology and major contributions to the field in the U.S. and abroad. Emphasis on socio-historical development and philosophical movements that shaped criminological theory and its implications for criminal justice. Prerequisites: CRMJ 201 or SOCO 260.

CRMJ 395 Independent Study (1-3)

CRMJ 396 Topics (1-3)

CRMJ 400 Death Investigations and Forensic Pathology (3)
Explorations of types of death investigations. Focus on crime scene documentation, impact of emergent technology on the investigative process, collection of evidence, and the role of the investigator in a criminal prosecution. Prerequisite: CRMJ 201.

CRMJ 410 Criminal Investigations (3)
Analysis of the investigative process and techniques employed in a contemporary criminal investigation. Considers theory and methodology of criminal investigation, and legal dynamics relative to achieving the major goals of an investigation. Use of practical and interactive experiences involves students in the investigative process by utilizing field exercises such as evidence collection and preservation, simulations related to crime scenes, surveillance activities, victim/suspect interviews and interrogations, and sound case preparation. Prerequisite: CRMJ 310.

CRMJ 411 Serial Murders (3)
Exploration of the phenomenon of serial killers, their culture, biological, and psychological development, and the social construction of serial murder. Case studies of known serial killers examined and investigative techniques for identifying and apprehending suspects developed. Prerequisite: CRMJ 201.

CRMJ 412 Constitutional Law (3)
An analysis of American constitutional theory as articulated by the U. S. Supreme Court. Specific topics include the nature of judicial review, the powers of the President and Congress, federalism, the regulation of commerce and the development of substantive due process. Prerequisite: POLS 101 or consent of instructor.

CRMJ 415 Counter-Terrorism and Law Enforcement (3)
Emergence of modern terrorism and efforts to combat it. Strategies and systems involved in protecting against and responding to threats. Survey of major policies, practices, concepts, and challenges confronting practitioners in the complex field of counterterrorism and homeland security. Exploration of various issues facing law enforcement agencies in counterterrorism efforts. Prerequisite: CRMJ 310.

CRMJ 420 Criminal Law (3)
Philosophy, history and current state of criminal law with emphasis on analysis and application of Colorado Statutes and the American Law Institute Model Penal Code. Prerequisite: CRMJ 201, or POLS 101, or consent of instructor.

CRMJ 421 Cybercrime (3)
Examination of the convergence of computer technology and the need to protect data and information across a broad range of fields from national security, to criminal justice, to private security, and corporate sectors. Specific attention to cyber attacks, the methods used, the social impact, and the bodies of laws pertaining to computer crime covered. Prerequisite: CRMJ 201.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

CRMJ 425 Trial, Evidence and Legal Advocacy (3)
Development of written and oral advocacy skills through critical examination of legal issues, focusing on the interpretation of statutory laws and analysis of relevant case law to formulate sound, persuasive argument throughout the adversarial process. Considers trial procedure and the law of evidence. Prerequisites: CRMJ 201; CRMJ 301 or CRMJ 420 is recommended before taking this course.

CRMJ 426 Mock Trial (1)
Taken in conjunction with participation in collegiate mock trial competition. Examination of procedure of trial adversarial process, and participation in mock trial competition. Prerequisites: None. Recommended: CRMJ 425.

CRMJ 430 Organized Crime (3)
History of organized crime. Transnational and global nature of organized crime groups. Current strategies employed to combat the phenomenon. Specific types of criminal enterprises explored and various theoretical explanations regarding their formation and maintenance offered. Prerequisite: CRMJ 201.

CRMJ 470 Restorative Justice (3)
Exploration of an emerging paradigm in the field of criminal justice. Challenges notions of both crime and justice. Explorations of alternative notions to these issues which question the dominant paradigm and a justice system based upon retribution. Examination of the foundation of restorative justice, the principles which guide restorative practices, and gain a critical perspective of this emerging paradigm. Awareness created of the various approaches to crime and justice other than the one institutionalized within our American criminal justice system. Prerequisite: CRMJ 201 or SOCO 260.

CRMJ 494 Senior Seminar in Criminal Justice (3)
Arranged tutorials and seminars with Criminal Justice faculty and students, design and execution of a research project and submission of a senior thesis. Prerequisites: CRMJ 201 and senior status.

CRMJ 495 Independent Study (1-3)

CRMJ 496 Topics (1-3)

CRMJ 499 Internship (1-15)
Opportunities to apply theoretical principles in a structured organizational or work environment. Prior instructor and site approval required at least one semester in advance. Required clock hours dependent upon credit hours. Prerequisites: Junior or senior status in Criminal Justice, CRMJ 201, and consent of instructor.

CRIMINAL JUSTICE: P.O.S.T. (CRJW)

CRJW 101 Basic Police Academy (6)
Conforms to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning. Prerequisite: Permission of Academy Director.

CRJW 102 Basic Police Academy II (12)
Conforms to POST standards and state certification requirements as well as the basic skills and knowledge to perform the entry level duties of a peace officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning. Prerequisite: Permission of Academy Director.

CRJW 105 Basic Law (8)
Conforms to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on United States Constitution, arrest, search and seizure, interrogation and confessions, rules of evidence, Colorado Criminal Code, Colorado Traffic Code, Colorado Children's Code, Liquor Code and controlled substances. Prerequisite: Permission of Academy Director.

CRJW 106 Arrest Control (3)
Covers the skills, knowledge and abilities necessary to effectively maintain control of a suspect when making an arrest. Emphasizes the continuum of force and de-escalation of force. Prerequisite: Permission of Academy Director.

CRJW 107 Law Enforcement Driving (3)
Covers the skills, knowledge and abilities required for operation of a law enforcement vehicle. Emphasizes defensive driving. Enables students to demonstrate skills by driving a vehicle under simulated conditions. Prerequisite: Permission of Academy Director.

CRJW 108 Firearms (3)
Discusses the skills, knowledge and abilities necessary to safely use police firearms. Students will demonstrate skills by firing weapons on a firing range. The student will demonstrate basic safety techniques and will explain the firearms role within the continuum of force. Prerequisite: Permission of Academy Director.

CRJW 201 Public Safety Diving Phase I (4)
Public Safety Diving Environments. The formation of responsible scuba diving practices. Includes Basic Open Water Scuba Certification and protection from contaminated working environments. Prerequisites: Medical evaluation and POST Academy Director approval.

CRJW 202 Homicidal Drowning Investigations (2)
Approaches to water related death investigations. Exploration of the crime scene. What characteristics are present? Is it an accident or homicide? Prerequisites: POST affiliation or Public Safety employment.

CRJW 203 Rapid River Deployment SARR (Underwater Crime Scene Investigations) (2)
Operational development of underwater crime scene investigations. Operational protocol with public safety diving hazards. Proper evidence mapping and securing underwater crime scenes. Prerequisite: CRJW 201.

CULINARY ARTS (CUAR)

CUAR 101 Food Safety & Sanitation (2)
Exploration of the basic rules of sanitation, food-borne illnesses, safe food temperatures, and safe food handling techniques.

CUAR 121 Introduction to Food Production (1)
Fundamental principles of commercial kitchen operations.

CUAR 122 Introduction to Hot Foods (1)
Fundamental principles of stocks, soups, sauces, gravies, and products in the kitchen.

CUAR 123 Introduction to Garde Manger (1)
Fundamental principles of cold foods and non-alcoholic beverage preparation.

CUAR 124 Food Production Applications (1)
Basic cooking principles and practices in the production of stocks, soups, sauces and gravies, and vegetables, starches, fruits, salads, and dressing.

CUAR 125 Introduction to Foods (4)
Exploration of fundamental principles and practices of a commercial kitchen, including the organization of work, and basic cooking methods. Corequisite: CUAR 101 or permission of instructor.

CUAR 129 Center of the Plate (4)
Provides the basic methods for preparation and cooking of a variety of complete meals in a commercial kitchen. Corequisite: CUAR 125 and CUAR 101 or permission of instructor.

CUAR 131 Vegetables, Starches, Pastas, Breakfast and Short Order Cookery (1)
Preparation of vegetables, starches, breakfast and grilled items.

CUAR 132 Center of the Plate: Meat (1)
Preparation of a variety of meat dishes.

CUAR 133 Center of the Plate: Poultry, Fish (1)
Preparation of a variety of seafood and poultry dishes.

CUAR 134 Food Production Applications (1)
Practical application of food production techniques related to courses CUAR 121, CUAR 122, CUAR 123, CUAR 134, CUAR 131, CUAR 132, and CUAR 133. Prerequisite: CUAR 124.

CUAR 136 Bartending (2)
Preparation, service, and legal responsibilities of alcohol service.

CUAR 141 Basic Baking Principles and Ingredients (1)
Fundamentals of baking terminology, principles of baking, and the characteristics and functions of the main ingredients used in bakery production.

CUAR 142 Basic Yeast-Raised Products and Quick Breads (1)
Application of basic yeast-raised baking principles.

CUAR 143 Cakes, Pies and Pastry, Cookies (1)
Application of basic cake, pie, pastry, and cookie production.

CUAR 144 Baking Applications (1)
Application of basic baking principles and production.

CUAR 145 Introduction to Baking (4)
Exploration of basic baking principles, the characteristics and functions of ingredients, and production techniques for a variety of baked goods in a commercial kitchen. Corequisites: CUAR 125 and CUAR 129.

CUAR 156 Nutrition for the Hospitality Professional (3)
Fundamentals of nutrition as they apply to the food service industry.

CUAR 157 Menu Planning (3)
Introduction to planning menus and integrating them into foodservice operations.

CUAR 190 Dining Room Management (4)
Explores service related skills common to the "front of the house" through hands-on training in a restaurant dining room. Prerequisite: permission of instructor.

CUAR 196 Topics: (1-3)

CUAR 233 Advanced Line Prep and Cookery (4)
Preparation of complete meals to order. Emphasizes cooking "center of the plate" items such as meat, fish, seafood, and poultry in a commercial kitchen. Prerequisites: CUAR 125, CUAR 129, and CUAR 145, or permission of instructor.

CUAR 255 Supervision in the Hospitality Industry (3)
Skills necessary for creating a goal-oriented environment utilizing management principles in the hospitality industry.

CUAR 256 Marketing in the Hospitality Industry (3)
Development and application of marketing concepts as applied to the food service industry.

CUAR 261 Cost Controls (3)
Explores the costs usually found in the food service industry and the techniques used to control them.

CUAR 262 Purchasing for the Hospitality Industry (3)
Explores the purchasing, selection, and procurement of food and supplies in the hospitality industry.

CUAR 281 Internship (2-6)
Places students in an actual work situation where they participate in the operation of a foodservice establishment.

CUAR 296 Topics: (1-3)

DANCE (DANC)

✓ **DANC 115 Dance Appreciation-GTAH1 (3)**
Exploration of the roots and trends of the art of dance from the primitive to the contemporary. Introduction of esthetic guidelines for looking at dance as it relates to America and the world.

DANC 156, 157 Dance Performance (1)
Student participation in the production of a dance supervised by faculty or guest artist. Students must audition. Corequisite: one technique class.

DANC 160 Beginning Ballet (1)
Including terminology, theory, history & critical analysis of the Art Form. Corequisite: DANC 160L.

DANC 160L Beginning Ballet Laboratory (1)
Including alignment, balance, endurance, flexibility, and strength, in elementary technical proficiency. Corequisite: DANC 160. This course fulfills one KINA activity credit.

DANC 169 Beginning Modern Dance (1)
Including terminology, theory, history & critical analysis of the Art Form. Corequisite: DANC 169L.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

DANC 169L Beginning Modern Dance Laboratory (1)
Alignment, balance, endurance, flexibility, and strength, in elementary technical proficiency. Corequisite: DANC 169. This course fulfills one KINA activity credit.

DANC 174 Beginning Jazz Dance (1)
Including terminology, theory, history & critical analysis of the Art Form. Corequisite: DANC 174L.

DANC 174L Beginning Jazz Dance Laboratory (1)
Including alignment, balance, endurance, flexibility and strength in elementary technical proficiency. Corequisite: DANC 174. This course fulfills one KINA activity requirement.

DANC 177 Beginning Tap Dance (1)
Including terminology, theory, history & critical analysis of the Art Form. Corequisite: DANC 177L.

DANC 177L Beginning Tap Dance Laboratory (1)
Including alignment, balance, endurance, flexibility and strength in elementary technical proficiency. Corequisite: DANC 177. This course fulfills one KINA activity credit.

DANC 180 Beginning Hip Hop Dance (1)
Fundamentals of Hip Hop, including alignment, balance, endurance, flexibility, and strength, in elementary technical proficiency.

DANC 196 Topics (1-3)

DANC 219 Ballroom Dance (2)

DANC 225 The Healthy Dancer (3)
Exploration into conditioning, nutrition, injury prevention, basic anatomy and motivational techniques unique to the dance student.

DANC 230 Modern IIA (2)
Intermediate modern dance technique. Prerequisite: DANC 169 and 169L, or consent of instructor.

DANC 231 Modern IIB (2)
Intermediate modern dance technique. Prerequisite: DANC 230 or consent of instructor.

DANC 232 Jazz IIA (2)
Intermediate jazz dance technique. Prerequisite: DANC 174 and 174L, or consent of instructor.

DANC 233 Jazz IIB (2)
Intermediate jazz dance technique. Prerequisite: DANC 232 or consent of instructor.

DANC 234 Ballet IIA (2)
Intermediate ballet technique. Prerequisite: DANC 160 and 160L, or consent of instructor.

DANC 235 Ballet IIB (2)
Intermediate ballet technique. Prerequisite: DANC 234 or consent of instructor.

DANC 236 Tap IIa (2)
Intermediate tap dance technique. Prerequisite: DANC 177 and 177L, or consent of instructor.

DANC 237 Tap IIB (2)
Intermediate tap dance technique. Prerequisite: DANC 236 or consent of instructor.

DANC 250 Dance Improvisation (2)
Introduction to and application of basic theories of dance improvisation.

DANC 255 Dance Composition (3)
Introduction to and application of basic theories of choreography, including principles of critical analysis. Prerequisite: DANC 250 or consent of instructor.

DANC 256 Dance Performance (1)
Student participation in the production of a dance supervised by faculty or guest artist. Students must audition. Corequisite: one technique class.

DANC 257 Dance Performance (1)
Student participation in the production of a dance supervised by faculty or guest artist. Students must audition. Corequisite: one technique class.

DANC 270 Theory and Practice of Modern Dance (2)
Intermediate modern dance technique. Prerequisite: DANC 169 and 169L, or consent of instructor.

DANC 280 Theory and Practice of Hip Hop (1)
Intermediate theory and practice of Hip Hop. Prerequisite: DANC 180 or consent of instructor.

DANC 290 Choreography Practicum I (1)
Student practice in choreography and producing an original dancework. May be repeated once for credit.

DANC 296 Topics (1-3)

DANC 310 Dance Pedagogy (3)
Theory and application of methods of teaching dance techniques. Prerequisite: 4 semester hours of dance technique (ballet, jazz, modern and/or tap).

DANC 315 History and Philosophy of Dance I (3)
Cultural and historical exploration of dance, from its primitive roots to the 20th Century. Prerequisite: ENGL 112.

DANC 316 History and Philosophy of Dance II (3)
Cultural, historic, and aesthetic exploration of dance in the 20th Century. Prerequisite: DANC 315.

DANC 328 Music Analysis for Dance (3)
Exploration of rhythmic structure inherent in dance, including music notation, rhythmic coordination as it relates to dance and musicality of the body. Prerequisite: consent of instructor.

DANC 330 Modern IIIA (2)
Intermediate to advanced modern dance technique. Prerequisite: Consent of instructor.

DANC 331 Modern IIIB (2)
Intermediate to advanced modern dance technique. Prerequisite: DANC 330 or consent of instructor.

DANC 332 Jazz IIIA (2)
Intermediate to advanced jazz dance technique. Prerequisite: consent of instructor.

DANC 333 Jazz IIIB (2)
Intermediate to advanced jazz dance technique. Prerequisite: consent of instructor.

DANC 334 Ballet IIIA (2)
Intermediate to advanced ballet technique. Prerequisite: consent of instructor.

DANC 335 Ballet IIIB (2)
Intermediate to advanced ballet technique. Prerequisite: Consent of instructor.

DANC 336 Tap IIIA (2)
Intermediate to advanced tap dance technique. Prerequisites: Consent of instructor.

DANC 337 Tap IIIB (2)
Intermediate to advanced tap dance technique. Prerequisite: consent of instructor.

DANC 355 Advanced Dance Composition (3)
Advanced investigation and application of theories of choreography, including critical analysis of the art form. Prerequisite: DANC 255 or consent of instructor.

DANC 356 Dance Performance (1)
Student participation in the production of a dance work supervised by faculty or guest artist. Prerequisites: by audition, DANC 256, or consent of instructor. Corequisite: one technique class.

DANC 390 Choreography Practicum II (1)
Student practice in choreography and producing an original dance work. May be repeated once for credit. Prerequisite: DANC 290 or consent of instructor.

DANC 430 Modern IVA (2)
Intermediate/advanced modern dance technique. Prerequisite: Consent of instructor.

DANC 431 Modern IVB (2)
Advanced modern dance technique. Prerequisite: consent of instructor.

DANC 432 Jazz IVA (2)
Advanced jazz dance technique. Prerequisite: instructor consent.

DANC 433 Jazz IVB (2)
Intermediate to advanced jazz dance technique. Prerequisite: Consent of instructor.

DANC 434 Ballet IVA (2)
Intermediate to advanced ballet technique. Prerequisite: Consent of instructor.

DANC 435 Ballet IVB (2)
Advanced ballet technique. Prerequisite: consent of instructor.

DANC 436 Tap IVA (2)
Intermediate to advanced tap dance technique. Prerequisite: Consent of instructor.

DANC 437 Tap IVB (2)
Advanced tap dance technique. Prerequisite: consent of instructor.

DANC 456 Dance Performance (1)
Student participation in the production of a dance work supervised by faculty or guest artist. Prerequisite: by audition, DANC 356, or consent of instructor. Corequisite: one technique class.

DANC 490 Choreography Practicum III (1)
Student practice in choreography and producing an original dance work. May be repeated once for credit. Prerequisite: DANC 390 or consent of instructor.

DANC 494 Senior Dance Capstone (1)
Exploration of and preparation for dance professions/careers for upper division dance students.

DANC 495 Independent Study (1-3)

DANC 496 Topics (1-3)

ECONOMICS (ECON)

✓ **ECON 201 Principles of Macroeconomics-GTSS1 (3)**
✓ **ECON 202 Principles of Microeconomics-GTSS1 (3)**
Basic concepts of economics. Courses must be taken in sequence and are not open to freshmen.

ECON 301 Labor-Management Relations (3)
Organized labor movement, employer labor policies, collective bargaining, wages and wage regulation, social insurance, and public labor policy. Counts as management course for BBA candidates. Prerequisites: ECON 201, 202, or equivalent.

ECON 310 Money and Banking (3)
Monetary, credit, and banking systems in the United States. Counts as management course for BBA candidates. Prerequisites: ECON 201, 202, or equivalent.

ECON 312 Economic History of the United States (3)
Economic development of the United States and the nation's economic institutions from the colonial period to the present. Prerequisites: ECON 201, 202 or HIST 131, 132, or consent of instructor.

ECON 320 History of Economic Ideas (3)
Development of economic analysis, thought, theories, and doctrines from the ancient world to recent times. Prerequisites: ECON 201, 202, or equivalent.

ECON 342 Intermediate Macroeconomic Theory (3)
Factors determining the level and rate of growth of GDP, the inflation rate, and the employment rate. Policies that have been (or may be) used to influence these variables, and empirical evidences on the relationships among variables are also studied. Prerequisites: ECON 201, 202, or equivalent, or consent of instructor.

ECON 343 Intermediate Microeconomic Theory (3)
Problems of resource scarcity in a market economy. Emphasis is placed on an analysis of resource allocation under different forms of competition. Covers theory of the firm, theories of market structure, efficiency, equity, and the application of public policy. Prerequisites: ECON 201, 202, or equivalent, or consent of instructor.

ECON 395 Independent Study (1-3)

ECON 396 Topics (1-3)

ECON 401 Economic Organization and Public Policy (3)
Political economy of economic organization and public policy including analysis of the structure/conduct dimensions of industry and government institutions and their effects on resource allocation, income distribution, and economic performance. Antitrust, regulation, and other policies are treated concurrently. Counts as a management

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course for BBA candidates. Prerequisites: ECON 201, 202 or equivalent.

ECON 410 Public Sector Economics (3)
Political economy of government finance including analysis of the effects of government revenue and expenditure policies on resource allocation, income distribution, and economic performance. Counts as a management course for BBA candidates. Prerequisites: ECON 201, 202, or equivalent.

ECON 420 International Economics (3)
International trade theory and policy such as balance of payments analysis, international investment flows, and the position of the dollar in foreign exchange transactions. Prerequisites: ECON 201, 202, or equivalent.

ECON 495 Independent Study (1-3)

ECON 496 Topics (1-3)

ECON 530 Managerial Economics (3)
The focus of this course is the application of economic theory and its tools to everyday business activities. Topics to be covered include the analytical tools of economics, macro and micro economic theory, and factors that influence demand.

EDUCATION: CAREER/ TECHNICAL (EDUT)

EDUT 250 Career and Technical Education in Colorado (1)
Explores common elements of Career and Technical Education philosophy and current practices. It details the philosophy of Career and Technical Education (CTE), the federal Carl D. Perkins legislation and related guidelines for CTE, the Colorado Technical Act, national and state regulatory agencies, the CCCS program approval process, enrollment management and advising strategies, relevant local and national issues, and quality assurance principles.

EDUT 251 Secondary CTE Capstone (3)
This capstone course in the secondary CTE credentialing sequence offers an in-depth analysis of secondary career and technical student organizations and competitions, the Colorado Technical Act, working with exceptional students, creating and effectively deploying program advisory committees, and an overview of educational and political systems in Colorado. The final project is an analysis of the efficiency with which one's employing school district funds, operates and assesses CTE programs.

EDUT 260 Adult Learning and Teaching (3)
Examines the philosophy of community colleges and/or secondary schools and the roles and responsibilities of the faculty member within the college/ school community. Introduces basic instructional theories and applications, with particular emphasis on adult learners. Includes syllabus development, learning goals and outcomes, and lesson plans. Emphasizes teaching to a diverse student body, classroom management, assessment and instructional technology.

EDUT 288 Practicum II (1)
Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the education facility and with the direct guidance of the instructor.

EDUT 289 Capstone (1)
Focuses on a demonstrated culmination of learning within a given program of study.

EDUCATION: EARLY CHILDHOOD EDUCATION (EDEC)

EDEC 101 Introduction to Early Childhood (3)
An overview of history, philosophy, current and legal issues, licensing and health regulations, facilities, and programming for young children. Provides prospective teachers opportunity to assess roles played in dealing with children of diverse ethnic, cultural, and economic backgrounds. Field experience includes observation and participation in school settings three hours per week.

EDEC 102 Introduction to Early Childhood Professions Lab Experiences (3)
Hands-on field experience for the student, who will demonstrate knowledge of child growth and development, guidance techniques, planning and implementation of curriculum, assessment techniques, and application of laws and standards. Prerequisite: EDEC 101.

EDEC 103 Guidance Strategies (3)
Techniques to enhance guidance strategies through positive social skills, violence prevention, and anger management. The importance of family and community resources will also be addressed.

EDEC 113 Infant and Toddler Theory and Practice (3)
Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition issues.

EDEC 114 Introduction to Infant/Toddler Lab Techniques (3)
Includes a classroom seminar and placement in an infant and/or toddler setting. The supervised placement provides the student with the opportunity to observe, to practice appropriate interactions and to develop effective guidance and nurturing techniques with infants and/or toddlers. Addresses ages prenatal through age 2.

EDEC 195 Independent Study (1-3)

EDEC 196 Topics (1-3)

EDEC 230 Curriculum and Development: Infant/Toddler (3)
Curriculum for the age group birth-2 years. Content emphasis is on maintaining healthful, safe, environmental activities to stimulate language, social emotional, cognitive, and physical development.

EDEC 237 Theories and Techniques of Social and Emotional Growth (3)
Incorporates student specific techniques and strategies for guiding and enhancing social and emotional growth in children

0-8 years. Introduces and compares the theories underlying quality interactions and patterns of social and emotional progression.

EDEC 238 Early Childhood Development 0-8 Years 3)
Theories, current research and developmental ages and stages of children, conception to 8 years.

EDEC 240 Curriculum and Development: Early Childhood (3)
Methods of creating and implementing curriculum based on their understanding of developmentally appropriate practice for children, birth to age 8. Application of the teaching/learning process, and of managing the learning environment, will draw from research and practical application. Prerequisites: EDEC 101.

EDEC 241 Early Childhood Administration: Human Relations (3)
The roles and relationships among children, families, early childhood professionals and community resources. Consideration will be given to family structures, communication skills, roles of support organizations, team building, evaluation tools and advocacy.

EDEC 250 Exceptionalities in Early Education (3)
Exploration of disabilities, assessment activities, and learning environments for children with diverse needs in the early years (birth-age 8). Prerequisite: EDEC 101.

EDEC 264 Administration in Early Education (3)
Overview of management concepts applicable in a variety of early education settings. Course content focuses on management of programs and personnel, program and staff development, fiscal administration, and evaluation.

EDEC 290 Early Literacy for the Young Child (2)
In-depth view of early literacy development in a changing, diverse society intended for the prospective early childhood teacher. Includes research about the language and literacy of young children. Explores how learners develop the ability to communicate and interact from birth to age 8. Prerequisites: EDEC 101.

EDEC 297 Practicum (1-2)
Supervised experience working with children and families in early care and education settings. Accepted by the State Department of Child Care Services for licensing purposes. Scheduling is flexible. Prerequisite: consent of instructor.

EDEC 299 Student Teaching in Early Education (3)
Full time supervised teaching experience which allows the student teacher the opportunity to apply developmentally appropriate, standards-based practice, theories, and philosophies acquired in coursework. Provides incremental responsibility for teaching, supervision, and management of young children birth to 6 years. A seminar is an integral part of the experience requirement. Prerequisites: EDEC 101 and instructor permission.

EDUCATION: TEACHER LICENSURE (EDUC)

EDUC 100 Introduction to Libraries (3)
Provides a general overview of libraries and their roles in schools and the community. The evolving role of libraries will be explored in the context of professional/school settings, different types of libraries, and the evolution of information, access, and distribution in a digital age.

EDUC 101 Information Literacy (3)
A theoretical approach to the flow of information and a practical introduction to the skills necessary to navigate information systems. Print and electronic resources; legal, economic, social and public aspects of information resources; strategies for critical evaluation of information resources; library services and resources.

EDUC 150 American Education: Past, Present, and Future (3)
An honors course that includes an historical view of public and private education; current challenges; demographic, sociological, technological, and economic trends and their effects on education; educational reform; comparative education systems; and future directions for public and private schooling in America.

EDUC 196 Topics (1-3)

EDUC 211 Foundations of Education (2)
Overview of the teacher education program and profession. Introduction to social, legal, historical, political, theoretical, and philosophical foundations of education. Course time will include school and educational services visitations. Prerequisites: ENGL 111, ENGL 112, SPCH 102, PSYC 233, all with a B or higher, MATH 105 for Elementary Education students or MATH 110 for Secondary/K12 Education students, declaration of a major in one of the approved courses of study at Colorado Mesa University to licensure.

EDUC 340 Pedagogical and Assessment Knowledge for Teachers: Early Childhood, Birth - 8 years (3)
Exploration of age/grade level teaching strategies, motivation principles, informal and formal assessments, planning strategies, and classroom management techniques. Includes a minimum of 20 hours of field experience. Prerequisites: Admission to the Teacher Education Program or permission of the instructor, EDUC 211. May be taken concurrently with EDUC 341 and EDUC 343.

EDUC 341 Pedagogy and Assessment: K-6/Elementary (3)
Exploration of age/grade level teaching strategies, motivation principles, informal and formal assessments, planning strategies, and classroom management techniques. Includes a minimum of 20 hours of field experience. Prerequisite: EDUC 211 and admission to the Teacher Education Program. Corequisite: EDUC 343.

EDUC 342 Pedagogy and Assessment: Secondary and K-12 (3)
Exploration of age/grade level teaching strategies, motivation principles, informal and formal assessments, planning strategies, and classroom management techniques. Includes a minimum of 20 hours of field experience. Prerequisites:

EDUC 211 and admission to the Teacher Education Program. Corequisite: EDUC 343

EDUC 343 Teaching to Diversity (3)
Study of differences in student development and approaches to learning. Addresses ethnic, linguistic, gender, sexuality, socioeconomic, ability/disability, and community diversity. Includes a minimum of 20 hours of field experience. Prerequisites: EDUC 211 and admission to the Teacher Education Program. Corequisites: EDUC 341 or EDUC 342.

EDUC 374 Exceptional and English Language Learners in the Inclusive Classroom (3)
Study of exceptionalities and English Language Learner (ELL) characteristics. The use of strategies for identifying, adapting, accommodating, and/or modifying the learning environment to meet the various needs. Includes intellectually challenged, learning disabled, social/emotional disorders, physically disabled, gifted, and English language learners. Prerequisites: EDUC 211, EDUC 341 or EDUC 342, and EDUC 343.

EDUC 378 Technology for K-12 Educators (1)
Digital technology's role in the teaching/learning process. Engaging technology in the classroom. Topics include New Literacies, Web 2.0 tools, e-books, interactive presentation tools, et al. Prerequisites: EDUC 211, EDUC 341 or EDUC 342, and EDUC 343.

EDUC 395 Independent Study (1-3)

EDUC 396 Topics (1-3)

EDUC 440 Methods of Teaching Language and Literacy: EC (4)
Survey of current research in early/emergent language and literacy, including language development and acquisition, family and community roles, teaching and learning strategies, literature in the curriculum, and ongoing assessment in instruction. Includes a minimum of 50 hours of field experience. Prerequisites: Admission to the Teacher Education Program and EDUC 211; may be taken concurrently with EDUC 451.

EDUC 441 Methods of Teaching Language and Literacy: Elementary (6)
Exploration of student literacy development in multiple literacies, with a focus in emergent and content area literacy. Study and application of instructional strategies for the reading/writing process, phonemic awareness, vocabulary, comprehension strategies, reading and writing workshops, literacy assessment, and integration of literacy across the curriculum, particularly in the social sciences. Field placements will be in a lab school environment for three mornings of school per week. Includes a minimum of 120 hours field experience. Prerequisites: Admission to the Teacher Education Program and EDUC 211, EDUC 340 and/or 341 and 343. Corequisite: EDUC 471.

EDUC 442 Integrating Literacy Across the Curriculum: Secondary and K-12 Art (4)
Exploration of multiple forms of student literacies. Study and application of instructional strategies for various literary genres across the middle school and high school curriculum with a focus in philosophical and theoretical perspectives from multicultural texts. Candidates develop a fully integrated unit to implement in field study. Includes a minimum of 60 hours of field experience. Prerequisites: Admission to the Teacher Education Program and EDUC 211, EDUC 342, EDUC 343; Corequisite: EDUC 497.

EDUC 451 Methods of Teaching Mathematics: Early Childhood/Elementary (3)
Prepares students to teach mathematics to elementary age students. Focus on major concepts, procedures, and reasoning processes that define number systems and number sense, geometry, measurement, statistics and probability, and algebra. Theoretical and practical approaches support learning about standards, content, delivery, and assessment. Field placements will be in a lab school environment for three afternoons of school per week. Includes a minimum of 60 hours of field experience. Prerequisites: Admission to the Teacher Education Program, EDUC 211, EDUC 340 and/or 341, 343, MATH 105, MATH 205, and MATH 301. Corequisite: EDUC 471.

EDUC 461 Methods of Teaching Science and Social Studies: Early Childhood/Elementary (3)
Study and application of content standards in science, health, civics, geography, history, and economics for elementary age students. Develops teaching proficiency and an understanding of integration of these subjects across the content areas. Field experiences are incorporated into the math/literacy block during three school days per week. Prerequisites: Admission to the Teacher Education Program, EDUC 211, EDUC 340 and/or EDUC 341, EDUC 343. Corequisite: EDUC 471.

EDUC 471 Educational Assessment for the K-12 Educator (1)
Current principles of assessment in the K-12 classroom. Includes selecting, developing, and evaluating a variety of assessment methods/types in the various content areas. Discuss how to analyze, interpret, and communicate assessment results with administrators, families, and students for the purposes of making instruction/curricular decisions. Prerequisites: EDUC 211, EDUC 341 or EDUC 342, and EDUC 343. Corequisites: EDUC 441, 451, 461, or consent of instructor.

EDUC 475 Classroom Management for K-12 Educators (1)
Effective classroom management. Establish productive classroom climate. Applications of management techniques to help students become responsible for their behaviors and choices. Student motivation, positive student-teacher relationships, effective partnerships between parents and school. Includes strategies to minimize and prevent classroom and behavior management problems as well as time management techniques. Prerequisites: EDUC 211, EDUC 341 or 341, EDUC 343, EDUC 441, EDUC 451, and EDUC 461, or consent of instructor.

EDUC 485 Modes of Inquiry (3)
Science, social studies and the arts as modes of inquiry. Designing standards based instruction as guided and exploratory interdisciplinary inquiries. Integrating seven interdisciplinary compulsories across the curriculum. Field based with online and classroom

components. This course involves a minimum of five hours of preparation/online interaction per week and participation in six (Sept/Oct/Nov) three-hour classroom seminars. Prerequisites: EDUC 491 and EDUC 486A. Co-requisites: EDUC 487, EDUC 488, and EDUC 492A.

EDUC 486A Accommodating Diverse and Exceptional Needs K-6 (3)
Designing, developing, implementing and assessing the effectiveness of instruction differentiated for relevant student diversity and exceptionalities; teaming with specialists; current state and federal guidelines and mandates. Field-based with online and classroom components. This course involves a minimum of five hours of preparation/online interaction per week and participation in three (May/June/July) six-hour classroom seminars. Corequisite: EDUC 491.

EDUC 486B Accommodating Diverse and Exceptional Needs 6-12 (3)
Designing, developing, implementing and assessing the effectiveness of instruction differentiated for relevant student diversity and exceptionalities; teaming with specialists; current state and federal guidelines and mandates. Field-based with online and classroom components. This course involves a minimum of five hours of preparation/online interaction per week and participation in (May/June/July) six-hour classroom seminars. Corequisite: EDUC 491.

EDUC 487 Literacy Education K-6 (3)
Designing, developing, implementing and assessing well-aligned, well-differentiated, discipline-specific curriculum, instruction, assessments and accommodations unique to K-6 Literacy Education. Field based with online and classroom components. This course involves a minimum of five hours of preparation/online interaction per week and participation in six (Sept/Oct/Nov) three-hour classroom seminars. Prerequisites: EDUC 486A and EDUC 491. Corequisites: EDUC 492A, EDUC 485 and EDUC 488.

EDUC 488 Math Education K-6 (3)
Designing, developing, implementing and assessing well-aligned, well-differentiated, discipline-specific curriculum, instruction, assessments and accommodations unique to K-6 Math Education. Field based with online and classroom components. This course involves a minimum of five hours of preparation/online interaction per week and participation in six (Sept/Oct/Nov) three-hour classroom seminars. Prerequisites: EDUC 486A and EDUC 491. Corequisites: EDUC 492A, EDUC 485 and EDUC 487.

EDUC 491 PBL I: Foundations of Curriculum, Instruction, and Assessment (9)
Designing cycles of instruction that are well-aligned (with standards and assessments); well-differentiated (for content, the learner and the situation): and support the development of self-directed learning. Course has online and classroom components. This June/July course involves a minimum of six hours of preparation/online interaction per day and participation in ten six-hour classroom seminars. Prerequisite: Admission to the (cohort) PBL program. Corequisite: EDUC 485.

EDUC 492A PBL 2: Directed Teaching - Elementary Education (9)
Full-time mentored August-December placement to develop accuracy, fluency and complexity in the design, implementation and assessment of instruction through observing, assisting, teaming (80%) and solo teaching. Prerequisites: EDUC 486A and EDUC 491. Corequisites: EDUC 485, EDUC 487 and EDUC 488.

EDUC 492B PBL 2: Directed Teaching - Secondary Education (9)
Full-time mentored August-December placement to develop accuracy, fluency and complexity in the design, implementation and assessment of instruction through observing, assisting, teaming (80%) and solo teaching. Prerequisites: EDUC 491 and EDUC 486B. Corequisites: EDUC 442, EDUC 497, and EDUC 487A, B, C, D, or E.

EDUC 495 Independent Study (1-3)

EDUC 496 Topics (1-3)

EDUC 497 Content Methodology Practicum (3)
Theory and practice of differentiated instruction, lesson study design and implementation, and basic concepts of Understanding by Design. Introduction to comprehensive school reform and curriculum design, as well as a focus on the improvement of teaching methodology across the curriculum. Includes a minimum of 80 hours of field experience. Prerequisites: Admission to the Teacher Education Program and EDUC 211, EDUC 342 and 343, and completion of all content area courses. Corequisites: EDUC 442 and EDUC 497A, B, C, D, or E as required by degree.

EDUC 497A Methods of Teaching Secondary English (2)
Theory and practice of teaching English language arts in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in reading comprehension, language, linguistics, comprehension, and rhetoric. Lesson preparation and presentation required. Prerequisites: Admission to Teacher Education Program and EDUC 211. Corequisites: EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343. Note: This course is only offered in the fall semester.

EDUC 497B Methods of Teaching Secondary Social Sciences (2)
Theory and practice of teaching history and the social sciences in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in United States history, world history, government, civics, political science, geography, economics, and behavioral science. Lesson preparation and presentation required. Prerequisites: Admission to Teacher Education Program and EDUC 211. Corequisites: EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343. Note: This course is only offered in the fall semester.

EDUC 497C Methods of Teaching Secondary Mathematics (2)
Theory and practice of teaching mathematics in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in arithmetic, basic algebra,

functions, graphing, probability, statistics, and integrated math. Lesson preparation and presentation required. Prerequisites: Admission to the Teacher Education Program and EDUC 211. Corequisites: EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343. Note: This course is only offered in the fall semester.

EDUC 497D Methods of Teaching Secondary Science (2)
Theory and practice of teaching science in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in: scientific methodology, techniques, and history; physical, life, and earth sciences; and science and technology. Lesson preparation and presentation required. Prerequisites: Admission to Teacher Education Program and EDUC 211. Corequisites: EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343. Note: This course is only offered in the fall semester.

EDUC 497E Methods of Teaching Secondary Spanish (2)
Theory and practice of teaching Spanish in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in: interpretive listening, structure of the language and grammatical accuracy, interpretive reading, and cultural perspectives. Lesson preparation and presentation required. Prerequisites: Admission to Teacher Education Program and EDUC 211. Corequisites: EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343. Note: This course is only offered in the fall semester.

EDUC 499A Teaching Internship and Colloquia: K-2 (6)
Available for students who are pursuing ECE/ELED licensure and standards-based education: an eight-week experience. Colloquiums are included and required. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 340 and/or 341, 343, 440 and/or 441, 451, 452, 453; all other coursework for bachelor's degree completed; 2.75 cumulative GPA as well as 2.75 GPA in major and 2.75 in EDUC classes.

EDUC 499B Teaching Internship and Colloquia: 3-6 (6)
Available for students who are pursuing ECE/ELED licensure and standards-based education: an eight-week experience. Colloquiums are included and required. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 340 and/or 341, 343, 440 and/or 441, 451, 452, 453; all other course work for bachelor's degree completed; 2.75 cumulative GPA as well as 2.75 GPA in major and 2.75 GPA in EDUC classes.

EDUC 499C Teaching Internship and Colloquia: Elementary (12)
Full-time (40 hrs min/week) supervised teaching experience designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Three required colloquia on Thursday evenings are included during this 15-week experience. Students must begin internship a minimum of one week prior to the beginning of the district school semester, regardless of the Mesa State start date. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 341, 343, 441, 451, 461 and all other course work for bachelor's degree completed; as well as 2.8 GPA in major and 2.8 GPA in EDUC classes.

EDUC 499D Teaching Internship and Colloquia: Elementary for K-12 (6)
Full-time (40 hrs min/week) supervised teaching experience designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Required colloquia on Thursday evenings are included during this eight-week experience. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 342, 343, 441 (except Music and Kinesiology majors); appropriate content area methods course/s; all other coursework for bachelor's degree completed; 2.8 cumulative GPA as well as 2.8 GPA in major and 2.8 GPA in EDUC classes. Corequisite: EDUC 499H.

EDUC 499G Teaching Internship and Colloquia: Secondary (12)
Full-time (40 hours min/week) supervised teaching experience designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Three required colloquia on Thursday evenings are included during this 15-week experience. Students must begin internship a minimum of one week prior to the beginning of the district school semester, regardless of the Colorado Mesa University start date. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 342, 343, 442, 497, and 497A, B, C, D, or E as appropriate for content area major; all other course work for bachelor's degree completed; 2.8 cumulative GPA, as well as 2.8 GPA in major and in 2.8 GPA in EDUC classes.

EDUC 499H Teaching Internship and Colloquia: Secondary for K-12 (6)
Supervised teaching experience at the secondary level for students who are pursuing K-12 licensure and standards-based education. Several colloquia are included in the eight-week experience. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 342, 343, 442 (except Music and Kinesiology majors); appropriate content area methods course/s; all other course work for bachelor's degree completed; 2.75 cumulative GPA as well as 2.75 GPA in major and 2.75 GPA in EDUC classes.

EDUC 499I PBL 3: Directed Teaching: Elementary Education (12)
Continued full-time mentored January-May placement to develop solo professional competence in instructional design, implementation and assessment; and document having had a positive effect on student learning, across fifteen weeks of full-time solo teaching. A colloquium is an integral part of the experience requirement. Prerequisites: Program continuance approval.

EDUCATION: MASTER OF ARTS ACADEMIC CORE

These core courses are required for the Master of Arts in either education cognate.

EDUC 500 Culture and Pedagogy (3)
This course centers on Pedagogy that explores the relationships between culture and learning as well as teacher ideology and belief systems. Examines critical pedagogy, pedagogies of resistance, and teaching for social justice. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDUC 501 Educational Technology (2)
Historical and conceptual analyses of ways to design, organize, and integrate curricula across subject areas. Review of various instructional design models and fundamental design principles that guide the development of instructional materials. Students will create multimedia materials for incorporation into a final product. Critique of curriculum discourse, process, and product. Teachers' roles in site-based curriculum and staff development.

EDUC 502 Theory, Design & Assessment of Curriculum (3)
Introduction to instructional design; production and evaluation of computer-based instructional materials and software; selection, evaluation, and use of instructional media.

EDUC 503 Introduction to Educational Research and Design (3)
An analysis of differing orientations to evaluation and research. Emphasis on assumptions, attitudes, and expectation of what constitutes scientific knowledge and explanation; relationship of research orientation, methods of inquiry theory, and practice in both qualitative and quantitative research strategies. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDUCATION: EDUCATIONAL LEADERSHIP COGNATE (EDLD)

EDLD 504 Best Practices in Curriculum, Assessment, Instruction (3)
This class will focus on the best practices effective schools use in the areas of curriculum, assessment, and instruction. The alignment of these three areas is critical to the development and sustainability of an effective standards-based educational system that is equitable for all learners. Major topics include curriculum mapping, assessment for and of learning, quality assessment techniques, instructional strategies aligned to curriculum taught and monitored, and effective interventions and differentiated instructional practices. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 505 Reform and Organizational Change in Education (2)
Social and political assumptions underlying current efforts towards curriculum and instructional reform in elementary and secondary schools. Study of planning and evaluation in schools and school districts including strategic planning, effectiveness and curriculum audits, facility planning, and program planning and evaluation. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 515 Dynamic School Leadership in a Democratic Society: Introduction to School Administration (3)
Study of the nature of educational leadership, administration, and management with reference to current practice at the school building level. Attention will be given to administrative theory and practice, philosophy, and organizational development. Through the examination of leadership, organizational and change models, students will learn how to analyze their school or district using political, structural, human resources and cultural frames. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 520A Principalship I (2)
This introductory course will engage students in developing a comprehensive understanding of the role of the principal as instructional leader and change agent in today's PK-12 schools. Students will be introduced to the skill set needed to be an effective instructional leader and the knowledge base outlined in the Colorado Standards for the licensure of school principals. The historical role of the school principal will be compared and contrasted with the current demands of the modern school principal. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 520B Principalship II (1)
This introductory course will engage students in developing a comprehensive understanding of the role of the principal as instructional leader and change agent in today's PK-12 schools. Students will be introduced to the skill set need to be an effective instructional leader and the knowledge base outlined in the Colorado Standards for the licensure of school principals. The historical role of the school principal will be compared and contrasted with the current demands of the modern school principal. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 530 Legal Aspects of School Administration: Educational Policy and the Law (2)
Study of the relationship between politics, policy and governance of schools, including political systems, inter-governmental relations, power and conflict, and policy development regarding equity, quality and efficiency. While statutory and case law serve as the reference points for study and discussion, the primary objective is to gain an understanding of the relationship between the legal issues of education and the implications for administrative leadership. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 531 School Finance and Budgeting (1)
This course focuses on the role of leaders as orchestrators of business operations of the school and the guardian of business decisions that maximize instructional

effectiveness and achievement of organizational goals. Advanced study of the financial structure of public schools, including equity issues, taxation, revenue generation (grants) and budget development. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 535A Internship in EDLD: K-6 (1)
This practicum applies theory and research to the analysis and synthesis of field experiences in leadership. This practicum will be integrated into a concluding research project that structures students' reflections about their growth and vision as a leader. Through exploration of research and practicum methodology students will frame their capstone project proposals leading to final analysis and presentation following the course. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 535B Internship in EDLD: K-6 (2)
This practicum applies theory and research to the analysis and synthesis of field experiences in leadership. This practicum will be integrated into a concluding research project that structures students' reflections about their growth and vision as a leader. Through exploration of research and practicum methodology students will frame their capstone project proposals leading to final analysis and presentation following the course. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 540 School Improvement and Accountability (2)
Construction, administration and interpretation of educational assessments for the systematic analysis of student learning and teaching practice. Emphasis on the use and understanding of data analysis to improve teaching and learning in the classroom. Statistical analysis relating to education leadership decision-making applications. Prerequisites: Current teaching certificate, acceptance into M.A. program, and GRE.

EDLD 542 Instructional Supervision and Management/HR (3)
Study of effective human resources management, including recruitment, selection, induction, staff development, employee assistance, evaluation, contract negotiation and personnel management. The skills of conflict resolution and collaboration will be explored as well as ways to assess the learning organization needs. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 544 Strategies in School Improvement (2)
This course focuses on strategies that lead to school improvement, and ultimately continuous student success. High Performing Schools use strategies that are intentional and well designed. They operate in a learning culture that is dedicated to learning for all. This course will enable the student to analyze the culture of high performing schools and engage in problem solving protocols related to improvement in their own settings. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 545A Internship in EDLD: 7-12 (1)
This practicum applies theory and research to the analysis and synthesis of field experiences in leadership. This practicum will be integrated into a concluding research project that structures students' reflections about their growth and vision as a leader. Through exploration of research and practicum methodology students will frame their capstone project proposals leading to final analysis and presentation following the course. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 545B Internship in EDLD: 7-12 (2)
This practicum applies theory and research to the analysis and synthesis of field experiences in leadership. This practicum will be integrated into a concluding research project that structures student' reflections about their growth and vision as a leader. Through exploration of research and practicum methodology students will frame their capstone project proposals leading to final analysis and presentation following the course. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDUCATION: ENGLISH FOR SPEAKERS OF OTHER LANGUAGES COGNATE (EDUC)

EDUC 504 Methods of Teaching English as a Second Language (3)
Theory and practice of teaching English as a second language; techniques for teaching pronunciation, reading and writing in the context of communicative competence; analysis of resources available for ESL.

EDUC 510 ESL Strategies/Content Areas (3)
Strategies for assessing and teaching linguistically-diverse students in the content areas. Topics include role-playing, language dynamics, measurement, relevant research, and classroom practice.

EDUC 535 Internship in ESOL: K-6 (3)
This practicum applies theory and research to the analysis and synthesis of field experiences in ESOL. The practicum will be integrated into a concluding research project that structures students' reflections about their growth and vision as a leader. Through exploration of research and practicum methodology students will frame their capstone project proposals leading to final analysis and presentation following. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDUC 541 Exceptional Learners (3)
Study of exceptionality and special education, legislation, individualized education programs (IEP), planning and delivering services, multicultural and bilingual aspects of special education, classifications (impairments), exceptionality and the family. 20-hour field experience required.

EDUC 543 Inclusion Methods/ Strategies (3)
Collaboration, community and families, legal aspects of placement, classroom management, and methods and strategies used in inclusive classrooms. Each student is required to complete a minimum of 20 field experience hours.

EDUC 545 Internship in ESOL: 7-12 (3)
This practicum applies theory and research to the analysis and synthesis of

field experiences in ESOL. The practicum will be integrated into a concluding research project that structures students' reflections about their growth and vision as a leader. Through exploration of research and practicum methodology students will frame their capstone project proposals leading to final analysis and presentation following. Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDUC 554 Theories of Second Language Acquisition (3)
Research on second language acquisition, differences between first and second language acquisition, application of theories to classroom practice.

EDUC 555 Multicultural Narratives/ K-12 (3)
Survey of multicultural literature suitable for the K-12 classroom. Cultural awareness, diversity, developmentally-appropriate materials, book and media selection for bilingual and English-language learners in grades K-12.

EDUC 556 Assessment in English as a Second Language (3)
Assessment of linguistically-diverse students, developing instructional plans for linguistically-diverse students, measurement, relevant research, classroom practice, legal and social responsibilities.

ELECTRIC LINEWORKER (ELCL)

ELCL 120 Fundamentals of Electricity (4)
Generation, transmission, and distribution of electricity beginning with the electron and its function of transporting electric power to homes and industry.

ELCL 125 Job Training and Safety (2)
Covers first aid, CDL, basic use and care of personal protective equipment use and care of climbing equipment, daily inspection and basic use of motorized equipment.

ELCL 131 Electrical Distribution Theory I (4)
Pole setting techniques, framing methods and specifications, climbing, sagging and splicing of conductors, energizing and de-energizing of lines, and installation of protective grounds.

ELCL 131L Electric Distribution Lab (4)
Examination of the National Electric Safety Code, equipment operation, material records, knot tying, installation of protective grounds, pole climbing, replace insulators, replacing crossarms, conductor ties, and overhead line construction.

ELCL 132 Electrical Distribution Theory II (4)
ELCL 132L Electrical Distribution Theory II Laboratory (2)
Installation and operation of protective equipment, transformer hookups, voltage regulation, hotstick maintenance, troubleshooting, and gloving from the pole. Four hours lecture, three hours laboratory per week. Prerequisite: ELCL 131.

ELCL 137 Advanced Electrical Distribution (2)
ELCL 137L Advanced Electrical Distribution Laboratory (4)
Meter safety, connector installation, street lighting, rubber cover up, and public relations. Two hours lecture, eight hours laboratory per week. Prerequisite: ELCL 136L.

ELCL 140 Underground Procedures (4)
ELCL 140L Underground Procedures Laboratory (2)
Safety practices, terminology, fault finding, cable locating, switching procedure, installation of terminal devices, splicing, and transformer application. Five hours lecture, four hours laboratory per week.

ELCL 145 Hot Line Procedures (1)
ELCL 145L Hot Line Procedures Laboratory (2)
Two weeks of training by outside specialists covering current hotline maintenance and underground installation methods. Eight hours lecture, twenty-four hours laboratory per week.

ELCL 195 Independent Study (1,2)

ELCL 196 Topics (1,2)

ELCL 199 Internship (6)
Opportunity for an individual to be employed for training by a utility company while maintaining his/her status as a Colorado Mesa University student. Provides excellent on-the-job training benefits. Students usually selected for this course by formal interview. Prerequisite: consent of instructor. Eighteen hours per week, two semesters after completion of regular program.

ENERGY MANAGEMENT (EMGT)

EMGT 340 Energy Industry Fundamentals (3)
Provides energy literacy through a survey of the sources, distribution and uses of energy, including the evolution of energy from wood fires to coal to oil to the current mix of coal, oil, natural gas, nuclear, hydroelectric, wind, geothermal, biomass, solar and ocean currents and tides. Future energy policy, sources, uses and case studies will be discussed as well as alternative energy sources. Prerequisites: GEOL 111/111L, and CHEM 121/121L.

EMGT 350 Energy Development, Transportation, and Markets (3)
Overview of the energy industry domestic and worldwide. Basic energy industry drilling and production terminology, concepts and terms introduced and utilized throughout the course. Issues surrounding business models, upstream, midstream and downstream discussed in detail. Prerequisites: GEOL 111/111L, and FINA 301.

EMGT 360 Real Property, Oil and Gas Law (3)
The body of case law surrounding oil and gas leases and leasehold interests, mineral titles, concurrent ownership and split estates, and governmental regulation of mineral development, including pooling and unitization of oil and gas leases. Prerequisite: EMGT 340.

EMGT 410 Energy Regulation and Compliance (3)
The body of law surrounding governmental regulation of mineral development, including environmental liability, diligent and prudent operations, contractual risk allocation, and regulatory case studies. Prerequisite: EMGT 340.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

EMGT 440 Energy Land Practices I (3)
Overview of the supply and demand for energy. The physical path of energy from source to user, transportation issues pertaining to energy, energy pricing methodologies, energy markets, and risk control through the use of derivatives in the energy industry. Prerequisites: EMGT 340 and FINA 301.

EMGT 450 Energy Land Practices II (3)
Imparts mastery of the fundamental concepts and terminology related to real property law. Application of concepts to situations occurring in the energy environment as land is found, purchased and developed for use. Prerequisite: EMGT 340.

EMGT 494 Energy Senior Seminar (3)
Legal, economic, environmental, and national security issues surrounding the energy industry. Alternative energy sources and other current issues in energy management. Prerequisite: EMGT 340.

EMERGENCY MEDICAL TECHNICIAN (EMTS)

EMTS 101 Emergency Medical Technician - Basic I (3)
Policies, rules and regulations of emergency medical services. Basic anatomy and physiology. Initial and focused assessment of patient in the field. Corequisites: EMTS 102 and EMTS 103.

EMTS 102 Emergency Medical Technician - Basic II (3)
Management of respiratory, cardiac, CNS, endocrine, behavioral, drug, alcohol, allergy and anaphylaxis emergencies. Airway management, CPR, AED and basic pharmacology. Corequisites: EMTS 101 and EMTS 103.

EMTS 103 Emergency Medical Technician - Basic III (4)
Management of MOI, head, spinal, abdominal, chest and extremity trauma. Basic management of pediatric, gynecologic, and geriatric emergencies. EMT safety, environmental emergencies, hazmat, triage, and incident command. Preparation for national registry written and practical examination. Corequisites: EMTS 101 and EMTS 102.

EMTS 130 Emergency Medical Technician - Basic IV Therapy (2)
Focuses on cognitive and skill practice as required by Colorado Prehospital Care program for EMT-Basic level IV approval. Examines criteria, procedures and techniques for IV therapy, discusses fluid and electrolyte balance and principles and treatment for shock.

EMTS 190 Emergency Medical Technician - Basic EKG Interpretation (2)
Interpretation of EKG strips, anatomy and physiology of the heart, using three-lead monitoring as a guide. Introduction to twelve-lead EKG.

EMTS 225 Fundamentals of Paramedic Practice (3)
First course of the National Standard Paramedic Curriculum as approved by the Colorado State Department of Health and Environment. Prerequisites: EMTS 130 and EMTS 190. Corequisites: EMTS 226, EMTS 229, EMTS 230, EMTS 231, and EMTS 232.

EMTS 226 Fundamentals of Paramedic Practice Laboratory (2)
The lab experience to coincide with EMTS 225. Prerequisites: EMTS 130 and EMTS 190. Corequisites: EMTS 225, EMTS 229, EMTS 230, EMTS 231, and EMTS 232.

EMTS 227 Paramedic Special Considerations (3)
Focuses on a comprehensive study of Advanced Life Support Practice. Prerequisites: EMTS 225, EMTS 226, EMTS 229, EMTS 230, EMTS 231, and EMTS 232. Corequisites: EMTS 228, EMTS 233, EMTS 234, EMTS 235, and EMTS 236.

EMTS 228 Paramedic Special Considerations Laboratory (2)
The lab for EMTS 227. Prerequisites: EMTS 225, EMTS 226, EMTS 229, EMTS 230, EMTS 231, and EMTS 232. Corequisites: EMTS 227, EMTS 233, EMTS 234, EMTS 235, and EMTS 236.

EMTS 229 Paramedic Pharmacology (3)
Focuses on a comprehensive study of emergency pharmacology and medications used to treat common illnesses. Prerequisites: EMTS 130 and EMTS 190. Corequisites: EMTS 225, EMTS 226, EMTS 230, EMTS 231, and EMTS 232.

EMTS 230 Paramedic Pharmacology Laboratory (2)
Required pharmacology lab course in the paramedic education program. Prerequisites: EMTS 130 and EMTS 190. Corequisites: EMTS 225, EMTS 226, EMTS 229, EMTS 230, and EMTS 232.

EMTS 231 Paramedic Cardiology (5)
Cardiology topics as presented in the National Standard Curriculum for paramedics. Prerequisites: EMTS 130, and EMTS 190. Corequisites: EMTS 225, EMTS 226, ETMS 229, EMTS 230, and EMTS 232.

EMTS 232 Paramedic Cardiology Laboratory (1)
Incorporates hands-on application of principles of cardiac care in hospital and pre-hospital environment. Prerequisites: EMTS 130 and EMTS 190. Corequisites: EMTS 225, EMTS 226, EMTS 229, EMTS 230, EMTS 231.

EMTS 233 Paramedic Medical Emergencies (4)
A comprehensive study of adult medical emergencies. Prerequisites: EMTS 225, EMTS 226, EMTS 229, EMTS 230, EMTS 231, and EMTS 232. Corequisites: EMTS 227, EMTS 228, EMTS 234, EMTS 235, and EMTS 236.

EMTS 234 Paramedic Medical Emergencies Laboratory (1)
The lab for EMTS 233. Clinical study of adult and pediatric medical emergencies. Prerequisites: EMTS 225, EMTS 226, EMTS 229, EMTS 230, EMTS 231, and EMTS 232. Corequisites: EMTS 227, EMTS 228, EMTS 233, EMTS 235, and EMTS 236.

EMTS 235 Paramedic Trauma Emergencies (4)
A comprehensive study of adult and pediatric trauma emergencies. Prerequisites: EMTS 225, EMTS 226, EMTS 229, EMTS 230, EMTS 231, and EMTS 232. Corequisites: EMTS 227, EMTS 228, EMTS 233, EMTS 234, and EMTS 236.

EMTS 236 Paramedic Trauma Emergencies Laboratory (1)
Lab presenting various acute trauma scenarios. Prerequisites: EMTS 225, EMTS 226, EMTS 229, EMTS 230, EMTS 231, and EMTS 232. Corequisites: EMTS 227, EMTS 228, EMTS 233, EMTS 234, and EMTS 235.

EMTS 237 Paramedic Internship Preparation (2)
Reviews concepts and techniques used in the prehospital setting. Prerequisites: EMTS 231, EMTS 232, EMTS 233, EMTS 234, EMTS 235, and EMTS 236.

EMTS 280 Paramedic Internship I (6)
The preceptor/internship program for paramedic students. Prerequisite: EMTS 237.

EMTS 281 Paramedic Internship II (6)
Continuation of EMTS 280, preceptor program for paramedic students. Prerequisite: EMTS 280.

ENGINEERING (ENGR)

ENGR 105 Basic Engineering Drawing (3)
Fundamentals of computer-aided drafting and design. This is a foundation course for engineering-oriented students. Current engineering practice is emphasized, and computers are introduced as a tool for modern engineering design and drawing.

ENGR 111 Engineering Graphics and Design (3)
Basic problem-solving techniques used in engineering and the sciences. Topics include graphics, modeling, experimental methods, data analysis, value judgments, design processes, and decision making in realistic engineering situations. Prerequisites: MATH 130 and ENGR 105 or equivalents.

ENGR 125 Computer-Aided Design and Fabrication (3)
Introduces engineering design graphics. Includes learning a contemporary computer-aided design (CAD) software application and relevant engineering graphics concepts, such as orthographic projection, sections, engineering drawing practices, geometric dimensioning and tolerancing, and an introduction to manufacturing methods. Entails a final design project using rapid prototyping.

ENGR 140 First-Year Engineering Project (3)
Provides first-year engineering students with the opportunity to apply mathematic and scientific skills in interdisciplinary engineering projects. Students work in teams to design and build engineering projects under the guidance of engineering faculty. Prototype projects are exhibited at an end-of-semester design expo. Prerequisite: MATH 119 or higher, and MAMT 102 or MAMT 155 (may be taken concurrently).

ENGR 196 Topics: (1-3)

ENGR 224 Materials Science (3)
Structure, properties, and processing of metallic, polymeric, ceramic, and composite materials. Perfect and imperfect solids; phase equilibria; transformation kinetics; mechanical behavior; material degradation. Approach incorporates both materials science and materials engineering components. Prerequisites: CHEM 131, 131L, PHYS 131, 131L.

ENGR 251 Circuit Analysis I (3)
ENGR 251L Circuit Analysis I Laboratory (1)
Circuit analysis and modern electronics practice. Fundamental principles are applied to linear, time-invariant, lumped-parameter circuits. Electromechanical, thermal, and optical sensors are used with operational amplifiers in a variety of signal processing and wave-shaping applications. Four lectures and one two-hour laboratory per week. Prerequisites: PHYS 132, 132L. Corequisite: MATH 253.

ENGR 252 Circuit Analysis II (3)
ENGR 252L Circuit Analysis II Laboratory (1)
RL, RC, and RLC networks is first examined, with particular attention given to their natural and step responses. Mutual inductance and transformers are studied. Finally, the Laplace transform is used in circuit analysis, along with frequency domain techniques for networks. Three lectures and one two-hour laboratory per week. Prerequisite: ENGR 251, 251L.

ENGR 255 Thermodynamics (3)
The laws of thermodynamics applied to bulk matter. Examples are drawn from engineering, chemistry, biology, and physics. The role of the Second Law is emphasized, and applications range from engine performance to chemical reactions and phase changes. Free energy concepts are introduced and used throughout the course. Prerequisites: PHYS 131, 131L, MATH 152.

ENGR 261 Statics and Structures (3)
Covers statics of particles, equivalent force systems, rigid bodies, equilibrium of rigid bodies in two and three dimensions, analysis of truss and frame structures, uniaxially-loaded members, deformation and stress, distributed force systems, friction. Lectures and homework assignments involve computer work and hands-on laboratory work documented by written reports. Prerequisites: PHYS 131/131L, MATH 152.

ENGR 262 Dynamics (3)
Covers dynamic behavior of particle systems and rigid bodies; 2-D and 3-D kinematics and kinetics; impulse, momentum, potential, and kinetic energy; and work, collision, and vibration. Lectures and homework assignments involve computer work and hands-on laboratory work documented by written reports. Prerequisites: ENGR 261 and MATH 253.

ENGR 263 Mechanics of Solids (3)
Covers shear force and bending moment, torsion, stresses in beams, deflection of beams, matrix analysis of frame structures, analysis of stress and strain in 2-D and 3-D (field equations, transformations), energy methods, stress concentrations, and columns. Lectures and homework assignments involve computer work and hands-on laboratory work documented by written reports. Prerequisite: ENGR 261.

ENGR 312 Engineering Thermodynamics (3)
An introductory course in thermodynamics, the science of heat energy conversion. Develops understanding of energy, heat, work, efficiency, and ideal thermodynamic cycles. Teaches first and second laws of thermodynamics and perfect gas law. Prerequisites: MATH 152 and PHYS 111 or PHYS 131.

ENGR 317 Fundamentals of Circuits and Electronics (3)
Resistive circuits, operational amplifiers, capacitors, inductors, transient analysis,

sine waves, AC circuit analysis, resonance, transformers. Not for Electronics Engineering Technology and Computer Engineering Technology students. Prerequisites: MATH 152 and PHYS 111 or PHYS 131.

ENGR 321 Fluid Mechanics (3)
Covers fluid properties, laws of fluid statics and fluid dynamics, measurement of flow, viscous flow, laminar and turbulent flow, flow in ducts, forces due to fluid motion, and fluid machinery. Prerequisites: MATH 152 and PHYS 111 or PHYS 131.

ENGR 325 Component Design (3)
Knowledge and skills developed in preceding courses are extended and applied to design and selection of machine elements and machines. Attention is given to functional requirements, methods of manufacture, choice of materials and economic factors. Prerequisites: ENGR 224 and ENGR 263.

ENGR 343 Dynamics (3)
Kinematics of particles and rigid bodies. Kinetics of particles and rigid bodies in plane motion, including Newton's second law, work and energy, impulse and momentum. Prerequisites: ENGR 261 and MATH 152.

ENGR 395 Independent Study (1-3)

ENGR 396 Topics (1-3)

ENGR 426 Manufacturing Processes and Systems (3)
A senior level course that examines widely used manufacturing processes for metals, polymers, microelectronics and also exposes students to principles and practices of world class manufacturing. Lecture topics include material properties; engineering materials; casting, molding and related processes; metal forming and sheet metal working; material removal processes; joining and assembly processes; electronics manufacturing technology; and principles and practices of world class manufacturing. Manufacturing economic considerations. Influence of product design on process selection. Prerequisite: ENGR 224.

ENGR 430 Fluid Power Systems (3)
A mechanical approach to industrial hydraulic applications with emphasis on selection and function of hardware and interfacing of hydraulic systems with mechanical, fluidic and electrical/electronic controls. Prerequisite: ENGR 321.

ENGR 440 Industrial Controls & Electrical Power Systems (3)
Fundamentals of control of manufacturing processes and electric power systems. Topics covered include transformers, motors, generators, motor controls, and protective devices. Applications of relay logic, input and output devices, and programmable logic controllers (PLC). Design of complete control circuits, selection of components, and cost estimation. PLC programming for discrete event control and for analog applications. Prerequisite: ENGR 317.

ENGR 445 MET Design Project I (3)
The first of a two-course comprehensive group capstone design experience, focusing on the design proposal. This sequence applies material from prior course work, along with concepts of project management, problem definition; determining design requirements, design optimization, engineering analysis, proof-of-concept prototype, CAD drawings. Students make several oral design reviews, a final design presentation, and prepare a written report. Prerequisites: ENGR 325 and ENGR 426 (ENGR 426 may be taken concurrently).

ENGR 485 MET Design Project II (3)
Second part of a two-course capstone design experience. Refinement of prototype, design optimization, fabrication, testing and evaluation. Students orally present the final design, prepare a written report and operation manual for the product. Prerequisite: ENGR 445.

ENGR 495 Independent Study (1-3)

ENGR 496 Topics (1-3)

ENGR 497 Structured Research (1-3)
Engineering research under the direct guidance of a faculty member. Designed for junior and senior level students. Prerequisite: instructor permission.

ENGLISH (ENGL)

ENGL 030 Basic Writing Skills (2)
Focuses on sentence and basic paragraph structure and development. Enables the student to review and improve grammar, usage, and punctuation skills while employing critical thinking strategies and the writing process to respond to a wide variety of writing situations. Prerequisite: Accuplacer below 50.

ENGL 060 Writing Fundamentals (3)
Focuses on paragraph structure and development and introduces the formal essay. Enables the student to review and improve grammar, usage, and punctuation skills while employing critical thinking strategies and the writing process to respond to a wide variety of writing situations. Prerequisites: ENGL 030 or Accuplacer score from 50 to 69.

ENGL 090 Basic Writing (3)
Basic writing skills for students who need more background for formal college writing or whose ACT score is lower than that required for admission to English 111. Prerequisite: ENGL 060 or Accuplacer score from 70 to 94.

ENGL 096 Topics: (1-4)

✓ **ENGL 111 English Composition-GTCO1 (3)**
Introduction to writing as a process with an emphasis on achieving rhetorical purpose. Prerequisite: Students who do not meet placement criteria will be assigned to ENGL 090 and must pass that class with a "C" or higher to enroll in ENGL 111.

✓ **ENGL 112 English Composition-GTCO2 (3)**
The practice of academic writing that extends one's own thinking in response to the ideas of others. Prerequisite: ENGL 111 with a grade of "C" or higher to fulfill English Competency requirement under General Education.

✓ **ENGL 129 Honors English-GTCO2 (3)**
Examination of readings and creation of persuasive essays, research papers, and critical analyses. This course fulfills the composition requirements (ENGL 111 and ENGL 112) for baccalaureate

students whose ACT or SAT scores are high and whose writing skills are strong. Permission to enroll is required. Students must pass ENGL 129 with a grade of "C" or higher to fulfill English competency requirement under General Education.

✓ **ENGL 131 Western World Literature I-GTAH2 (3)**
Works from the Classical, Medieval, and Renaissance periods.

✓ **ENGL 132 Western World Literature II-GTAH2 (3)**
Works from the late Renaissance, Neoclassic, Romantic, and Modern periods.

✓ **ENGL 150 Introduction to Literature-GTAH2 (3)**
Study of major genres of literature.

ENGL 196 Topics (1-3)

ENGL 219 Introduction to Professional Writing (3)
Study of technical writing, public information and public relations writing, and free-lance nonfiction writing. Prerequisite: ENGL 112 or ENGL 129.

✓ **ENGL 222 Mythology-GTAH2 (3)**
Basic myths of the Greeks and Romans, the cultures that produced them and/or the Northern and Medieval myths of Europe, their backgrounds in classical culture and native folklore.

✓ **ENGL 231 Non-Western World Literature I-GTAH2 (3)**
Literature from cultures outside the Western tradition, from antiquity to approximately 1800. Texts, chosen by instructor, may include works from China, Japan, India, the Middle East, etc.

✓ **ENGL 232 Non-Western World Literature II-GTAH2 (3)**
Nineteenth and twentieth century literature from Eastern, Indian, African, Asian and Latin American tradition.

ENGL 240 Children's Literature (3)
Survey of literature for children from birth to age 12, focusing on ways of reading texts.

ENGL 245 Imaginative Writing (3)
Introduction to the theory and practice of imaginative writing for young people. Prerequisite: ENGL 111 or ENGL 129.

ENGL 250 Introduction to Creative Writing (3)
An introduction to the theory and practice of producing original works of poetry, fiction, and non-fiction prose. Prerequisite: ENGL 111 or ENGL 129.

✓ **ENGL 254 Survey of English Literature I-GTAH2 (3)**
English literature from its beginnings through the Enlightenment.

✓ **ENGL 255 Survey of English Literature II-GTAH2 (3)**
English literature from the Romantics to the present day.

✓ **ENGL 261 Survey of American Literature I-GTAH2 (3)**
American literature from the beginnings to the late 19th Century.

✓ **ENGL 262 Survey of American Literature II-GTAH2 (3)**
American literature from the late 19th Century to the present.

ENGL 296 Topics (1-3)

ENGL 301 Classical Greek and Latin Literature (3)
Readings in English of Greek and Roman authors and major classical genres.

ENGL 311 English Medieval Literature (3)
Major works of Old and Middle English literature.

ENGL 313 English Renaissance Literature (3)
Major works of the 16th and 17th Centuries, including the Metaphysical and Caroline poets and John Milton.

ENGL 314 American Literature to 1830 (3)
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period.

ENGL 315 American Literature 1830-1870 (3)
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period.

ENGL 316 American Literature 1870-1900 (3)
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period.

ENGL 320 Report and Proposal Writing (3)
Introduction to the theory and practice of preparing and analyzing reports and proposals intended for businesses, governmental agencies, and private and corporate foundations.

ENGL 330 Women in World Thought and Literature (3)
Readings in world literature by and about women; interdisciplinary study of feminist theories and women's contributions to world thought.

ENGL 335 The Bible as Literature (3)
The Old Testament as a literary masterpiece.

ENGL 343 Language Systems and Linguistic Diversity (3)
Introduction to the nature of language, first and second language acquisition, and issues relevant to linguistic diversity and multicultural literacies. Prerequisite: ENGL 111 or ENGL 129.

ENGL 355 Shakespeare (3)
Early and mature plays, including genres of comedy, history, tragedy, and romance, emphasizing close textual reading in conjunction with cultural and intellectual contexts.

ENGL 365 Literature for Young Adults (3)
Advanced study of major works for youth and adolescents throughout history, with an emphasis on contemporary authors.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

ENGL 370 Major Author (3)
In-depth study of one or two important writers, with attention to the writer's distinctive style and subject matter, the range of the writer's career, and the influence of the writer's work.

ENGL 380 Creative Writing: Non-Fiction (3)
Theory and practice of the memoir and the personal essay. Emphasis on narrative craft, experiential expression, research, and interviewing. Prerequisite: ENGL 250.

ENGL 381 Creative Writing: Fiction (3)
Theory and practice of producing original works of fiction. Prerequisites: ENGL 250 or consent of instructor.

ENGL 382 Creative Writing: Crafting Fiction (3)
In-depth focus on a specialized aspect of fiction writing.

ENGL 383 Creative Writing: Poetry (3)
Theory and practice of producing original works of poetry. Prerequisites: ENGL 250 or consent of instructor.

ENGL 384 Expository and Persuasive Writing (3)
Theory and practice of objective non-fiction, including expository and persuasive writing. Emphasis on style, structure, and audience.

ENGL 385 Technical and Professional Writing (3)
Practice in writing and editing of workplace documents, including correspondence, reports and proposals.

ENGL 386 Roots of Modern Rhetoric (3)
A survey of the history of rhetoric from classical Greece to the present with emphasis on the Greco-Roman tradition.

ENGL 387 Literary Editing and Publishing (3)
Practical experience in literary editing and publishing one of Colorado Mesa University's journals. Prerequisite: ENGL 250 or consent of instructor.

ENGL 390 Introduction to Film Studies (3)
Introduction to film narrative, cinematography, and theory.

ENGL 394 Technical and Professional Writing Topics (3)
Topics at the discretion of the instructor, or to meet the needs of the department. Topics may include: grant writing for industry; professional editing; desktop publishing for professional writing; writing for online presentation; individual and team writing.

ENGL 395 Independent Study (1-3)

ENGL 396 Topics (1-3)

ENGL 397 Practicum (3)
Experience in a Basic Writing classroom helping the instructor with all phases of writing instruction. Prerequisite: permission of department head.

ENGL 398 Practicum in Editing and Publishing (1-3)
Experience in editing and publishing one of Colorado Mesa University's journals. Credit hours contracted through advising instructor. Prerequisite: Consent of instructor.

ENGL 415 American Folklore (3)
American folklore with an emphasis on collecting Colorado and especially Western Colorado lore.

ENGL 421 Introduction to Literary Theory and Criticism (3)
Development and theory of literary criticism.

ENGL 423 Genre Studies (3)
History and development of an individual literary genre.

ENGL 425 Scientific Writing (3)
Theoretical and practical studies of writing in the sciences (science, medicine, and environmental writing). Addresses writing for both popular and professional audiences. Coverage of both print and online instructional materials. Safety, ethical and liability issues.

ENGL 427 Writing for Industry (3)
Theoretical and practical studies of writing for industrial fields. Addresses writing for both popular and professional audiences. Covers both print and online instructional materials. Safety, ethical, and liability issues.

ENGL 435 American Literature 1900-1945 (3)
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period. Prerequisites: ENGL 131, 132, 150, 222, 231, 232, 254, 255, 261, or 262.

ENGL 436 American Literature 1945-Present (3)
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period.

ENGL 438 Ethnic Experiences in U.S. Literature (3)
Survey of literary works written throughout United States history by African-American, Hispanic-American, Native American and Asian American authors, as well as by authors from other under-represented cultural communities.

ENGL 440 History of the English Language (3)
Historical development of the English language; its internal formation as shaped by external political, social, and intellectual forces. Prerequisite: Junior or senior status or consent of instructor.

ENGL 451 Structure of the English Language (3)
Study of modern English through the use of structural techniques and linguistic principles. Prerequisites: Junior or senior standing or consent of the instructor.

ENGL 470 18th Century British Literature (3)
Conceptual framework of the Enlightenment in England's representative writers.

ENGL 471 British Romanticism (3)
Representative works of writers attempting to discover a higher reality than that offered by materialism or rationalism.

ENGL 475 Victorian Literature (3)
Representative works of post-Romantic British literature.

ENGL 478 20th Century British Literature (3)
Major works from 20th Century British writers.

ENGL 491 Composition Theory and Practice (3)
Theory and practice of composing as it applies to teaching English in the junior and senior high schools; historical context, contemporary theory, and current pedagogy in the field of composition studies. Prerequisites: senior standing in teacher certification program or consent of instructor.

ENGL 492 Seminar in Writing (3)
Capstone course focusing on genre choice (novel, short story, poetry, memoir, creative non-fiction, screenplay, playwriting). Research into professional and publishing considerations. Development of a creative portfolio. Prerequisite: ENGL 250.

ENGL 494 Seminar in Literature (3)
Analysis of an important literary work or works, requiring students to interpret, criticize, and present research. Prerequisite: Senior standing or consent of instructor.

ENGL 495 Independent Study (1-3)

ENGL 496 Topics (1-3)

ENGL 497 Internship in Business, Technical, and Professional Communication (3)
An opportunity to write, edit, and design business and technical documents in a professional setting. Projects may include reports, proposals, grants, manuals, brochures and newsletters.

ENGL 543 Language Systems and Linguistic Diversity (3)
Advanced study in the nature of language, first and second language acquisition, and issues relevant to linguistic diversity and multicultural literacies. Discussions will focus on education within and across home, community, and school contexts, including a focus on home-school-community relationships.

ENGL 596 Topics (1-3)

ENVIRONMENTAL SCIENCE AND TECHNOLOGY (ENVS)

✓ **ENVS 101 Introduction to Environmental Science-GTSC2 (3)**
Impact of resource use and pollution on the earth's environment and biota. Scientific approach to solving environmental problems and the impacts of values upon global environmental decisions examined. General environmental awareness and literacy emphasized. Students may take either ENVS 101 or ENVS 103/103L for general education natural science credit, but not both.

✓ **ENVS 103 Field-Based Introduction to Environmental Science-GTSC1 (3)**
✓ **ENVS 103L Field-Based Introduction to Environmental Science Laboratory-GTSC1 (1)**
Examination of the effects of resource use and pollution on the earth's environment and biota. Integration of lecture with field and lab exercises to demonstrate scientific approach to solving environmental problems. Emphasis on environmental awareness and critical thinking. Students may take either ENVS 101 or ENVS 103/103L for general education natural science credit, but not both.

ENVS 104 Environmental Science: Global Sustainability (3)
Examination of local to global environmental issues. Includes human population dynamics and impact of agriculture on the environment, ecosystem function, energy use and sustainable development, air, water and soil pollution, climate change and environmental policy. Critical evaluation of readings from historical and modern environmental topics supplement lectures. Prerequisite: Declared ENVS major or minor or consent of instructor. Will not count as credit to the major if credit has already been received for ENVS 101 or ENVS 103.

ENVS 105 Readings in Environmental Science (1)
Critical readings in environmental science. Majors in Environmental Science and Technology only. ENVS 101 and 105 together are a substitute for ENVS 104. Prerequisite: ENVS 101.

ENVS 196 Topics (1-3)

ENVS 204 Introduction to Ecosystem Management (3)
ENVS 204L Introduction to Ecosystem Management Laboratory (1)
Scientific management of natural resources in a changing environment. Problem solving emphasized in a case study approach to ecosystem management. Theories of ecology, economics, fisheries and wildlife management, biology, and sociology to solve problems using realistic and complex landscape scenarios. Prerequisite: ENVS 104 or consent of instructor.

ENVS 212 Environmental Health and Safety (2)
ENVS 212L Environmental Health and Safety Laboratory (1)
Examination of environmental health and safety issues, risk assessment, control strategies, and implementation. Includes basic toxicology, personal risk assessment, and meets 40- hour OSHA training requirements for working on hazardous waste sites. Requires development of a site safety plan and use of personal protective equipment. Two lectures and one two-hour laboratory per week. Prerequisites: ENVS 110; sophomore standing (AAS degree); senior standing (BS degree) or consent of instructor.

ENVS 221 Science and Technology of Pollution Control (3)
ENVS 221L Science and Technology of Pollution Control Laboratory (1)
Introduction to scientific, engineering, and technical elements of pollution control. Includes pollutant characteristics, investigation and cleanup of contaminated sites, waste treatment (air emissions, wastewater discharges, hazardous waste), waste minimization, life cycle analysis, and industrial ecology. Lab focuses on site investigation skills, design

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

and operation of selected treatment technologies, and waste minimization audits. Prerequisites: ENVS 104; mastery of high school algebra; CHEM 121 or 131 recommended.

ENVS 296 Topics (1-3)

ENVS 301 Environmental Project Management (2)
Basic practices of effective project management, including proposal preparation, planning, scheduling, cost estimating, cost and progress tracking, and team building. Prerequisites: any one of the following: ENVS 221, ENVS 313, ENVS 331, ENVS 340.

ENVS 312 Soil Science and Sustainability (3)
Physical, chemical and biological properties of soils. Function of soils emphasized. Application of soil science to sustainable use of soils in natural and agricultural settings. Prerequisites: CHEM 121 or higher and ENVS 204/204L, or consent of instructor.

ENVS 312L Soil Science and Sustainability Laboratory (1)
Physical, chemical and biological properties of soils. Function of soils emphasized. Application of soil science to sustainable use of soils in natural and agricultural settings. Prerequisites: CHEM 121 or higher and ENVS 204/204L, or consent of instructor.

ENVS 315 Mined Land Rehabilitation (2)
Principles and practices of mined land reclamation. Topics include mining techniques, disturbances caused by mining, regulations, closure of mine features, soil preparation, revegetation, and monitoring. Prerequisites: ENVS 455 or ENVS 312/312L (may be taken concurrently).

ENVS 321 Environmental Risk Analysis (3)
Assessment, management, and control of risk from toxic substances in the environment. Topics include basic elements of toxicity testing and epidemiology, chemical fate in the environment, exposure assessment, uncertainty in risk estimates, approaches to risk management, and risk communication. Prerequisites: ENVS 221, ENVS 221L, and MATH 113.

ENVS 331 Water Quality (3)
ENVS 331L Water Quality Lab (1)
Physical, chemical, and biological properties of aquatic systems. Includes movement of water in the watershed, stream classification and stability, lake circulation, aquatic ecology, chemistry and biology of natural and polluted waters, water quality monitoring, regulation and protection of surface water, and watershed assessment and management. Lab focuses on practical skills and field measurements culminating in an assessment of a local watershed. Prerequisites: CHEM 121 or 132, and STAT 200.

ENVS 332 Introduction to Geographic Information Systems (2)
ENVS 332L Introduction to Geographic Information Systems Laboratory (1)
Basic knowledge of the fundamentals of GIS with regard to theoretical, technical, and application issues. Prerequisites: GEOL 305 or GEOG 131.

ENVS 340 Applied Atmospheric Science (3)
Examination of the atmosphere and air pollution. Includes physical and chemical properties of the atmosphere, meteorology, air pollutant sources and effects, monitoring, pollutant dispersion, emission inventory, management of emissions, and regulation of air quality. Prerequisite: CHEM 121 or 132.

ENVS 350 Ecology and Management of Shrublands and Grasslands (3)
ENVS 350L Ecology and Management of Shrublands and Grasslands Laboratory (1)
Examination of ecological principles in determining the structure, function, and management of North American grasslands and shrublands. Three one-hour lectures and one three-hour lab per week. Two Saturday labs may be required. Prerequisite: STAT 200 and ENVS 204/204L.

ENVS 360 Fire Ecology (3)
Examination of the ecological effects of fire on forests, shrublands, and grasslands. Includes fire effects on plants, animals, soil, and water, as well as using fire as a restoration tool. Prerequisites: STAT 200 and ENVS 204/204L. Corequisite: ENVS 360L.

ENVS 360L Fire Ecology Laboratory (1)
Field experience examining the ecological effects of fire on forests, shrublands, and grasslands of the Colorado Plateau. Includes field and lab studies that test the effects of fire on plants, animals, soil, and water. One 3-hour lab per week. May require 2 Saturday labs. Prerequisites: STAT 200 and ENVS 204/204L. Corequisite: ENVS 360.

ENVS 370 Renewable Energy (3)
An introduction to renewable energy resources from a technical perspective with an emphasis on sustainability. Topics include an introduction to the concepts of energy and power, units of measure, sources and forms of energy, uses of energy, energy efficiency, electricity, solar thermal and photovoltaics, bioenergy, hydropower, tidal power, wave power, wind power, geothermal, hydrogen, efficient building design and integration of renewables with current energy supplies.

ENVS 374 Sustainable Building (3)
Principles and practices of "green" building. Topics include philosophy of sustainable design, site development, passive heating and cooling, innovative structural systems and materials, energy supply and conservation, water and waste water management, indoor air quality, and case studies.

ENVS 394 Natural Resources of the West (1)
Seminars covering topics related to natural resources including water, soil, land, mineral and energy resources in the western United States. Guest speakers are invited from the academic community, industry or government agencies to give formal oral presentations following by informal discussion with students and faculty. The course may be repeated for a maximum of four semester hours of credit.

ENVS 395 Independent Study (1-3)

ENVS 396 Topics (1-3)

ENVS 410 Environmental Regulatory Compliance (3)
Examination of regulatory requirements pertaining to air pollution, water pollution, hazardous materials, and radioactive materials. Additional topics include enforcement, compliance management systems, compliance auditing, and innovative approaches to regulation. Prerequisites: ENVS 221, and junior or senior standing.

ENVS 413 Environmental Fate and Transport of Contaminants (3)
Physical, chemical, and biological factors influencing the persistence and migration of chemicals in the environment. Includes consideration of air, surface water, soil, and ground water. Emphasis on quantitative problem solving. Prerequisites: CHEM 121 or 132; and MATH 119, 146, or 151.

ENVS 420 Pollution Investigation & Monitoring (3)
Survey of field sampling and analytical methods for study of environmental systems. Topics include sampling design, regulatory issues, quality assurance, quality control, data interpretation, and reporting. Three one-hour lectures and one three-hour laboratory per week. Prerequisites: CHEM 122 or 132, STAT 200 or consent of instructor.

ENVS 420L Pollution Investigation & Monitoring Laboratory (1)
Examination of strategies and techniques for investigating contaminated sites and monitoring environmental pollutants. Topics include Phase I assessments, development and implementation of sampling and monitoring plans, quality assurance, methods of analysis, and data interpretation and presentation. Prerequisites: CHEM 121 or CHEM 131, and STAT 200, ENVS 221, and ENVS 221L.

ENVS 431 Water and Wastewater Treatment (3)
Examination of water and wastewater treatment processes including physical, chemical, and biological treatment technologies. Emphasis on unit process design and modeling. Prerequisite: ENVS 331.

ENVS 433 Restoration of Aquatic Systems (3)
Principles and practices of restoring the functions and values of streams, ponds, and wetlands. Addresses physical, chemical, and biological aspects of these aquatic systems. Prerequisites: ENVS 331 and ENVS 331L.

ENVS 455 Restoration Ecology (3)
ENVS 455L Restoration Ecology Laboratory (1)
Examination of principles and techniques for restoration of community characteristics and ecosystem functions to disturbed lands. Lecture and lab emphasize practical application of ecological principles to restoration culminating in an independent project of designing a restoration project for a local area. Prerequisites: ENVS 312, and ENVS 350 or ENVS 360; or consent of instructor.

ENVS 460 Fire Management (3)
Examination of principles and current topics in fire management, including fire behavior, prescribed fire/smoke management, fuels/fuels management, wildfire control, fire in the wildland-urban interface, and fire policy. Prerequisites: ENVS 360/360L, STAT 200, one semester of biology. Corequisite: ENVS 460L.

ENVS 460L Fire Management Laboratory (1)
Field, lab, and computer modeling experience in predicting fire behavior, planning prescribed burns, managing hazardous fuels, and assessing wildfire risk in the wildland-urban interface. Prerequisites: ENVS 360/360L, STAT 200, one semester of biology. Corequisite: ENVS 460.

ENVS 475 Experimental Design and Statistical Analysis in Environmental Science (3)
Examination of principles and techniques for designing experiments and analyzing data in environmental sciences. Emphasis on practical application of analysis techniques using environmental data with computer applications. Prerequisites: ENVS 204 or ENVS 221, STAT 200, and 6 upper division credits; or consent of instructor.

ENVS 492 Capstone in Environmental Science and Technology (2)
Small-group environmental projects for outside organizations. Prepare project proposals, plan and implement projects, write project reports, and give oral presentations to clients. Exit exams for the Environmental Science and Technology major are administered as part of this course. Prerequisite: Senior standing or consent of instructor.

ENVS 495 Independent Study (1-3)

ENVS 496 Topics (1-3)

ENVS 497 Structured Research (1-3)
Research in environmental science under the direct guidance of a faculty member. Designed for junior and senior level students. Prerequisite: permission of instructor.

ENVS 499 Internship (1-4)
Work experience for a non-academic organization on environmental projects. Requires 45 contact hours per credit hour, a final report, and oral presentation. Available as an elective for Environmental Science & Technology majors. Prerequisites: Junior or senior standing in the Environmental Science & Technology program or consent of instructor.

ENVS 596 Topics (1-3)

FINANCE (FINA)

FINA 301 Managerial Finance (3)
Acquisition, allocation, and management of funds within the business enterprise. Financial goals, funds flow, valuation, capital budgeting, and financing strategies. Prerequisite: ACCT 201, STAT 200.

FINA 310 Risk Management (3)
Identification of risk, risk analysis, risk evaluation and methods of resolving risk issues in a business environment. Insurance as a risk management tool discussed. Prerequisite: Consent of instructor.

FINA 320 Fundamentals of Investments (3)
Introduction to the theory and practices of investment valuation and management. Topics include risk and return, investor objectives and

strategies, the types and characteristics of investment instruments, the process of buying and selling securities, investment valuation and yields, and portfolio management. Prerequisite: FINA 301.

FINA 395 Independent Study (1-3)

FINA 396 Topics (1-3)

FINA 401 Entrepreneurial Finance (3)
The theory and practices of financing for the entrepreneur. Topics include cash forecasting and financial planning, cash collection and disbursements, short-term investing and financing, inventory management, accounts receivable management, credit and collections policy, and payables and accruals management. Prerequisite: FINA 301.

FINA 412 Life and Health Insurance Licensure and Financial Planning (3)
Analysis of personal and business life and health insurance policies. Focus includes coverage need determination, underwriting, marketing, financial, ratemaking, reserving and other insurance considerations. Prerequisite: Consent of instructor.

FINA 415 Property and Liability Insurance Licensure (3)
Analysis of personal and business property and liability insurance policies. Focus includes coverage need determination, underwriting, marketing, financial, ratemaking, reserving and other insurance considerations. Prerequisite: Consent of instructor.

FINA 420 Security Analysis and Portfolio Management (3)
Extension of the theory and practices of investment valuation and management. Topics include risk and return, market efficiency, economic and industry analysis, fundamental and technical analysis, bond analysis and management strategies, portfolio management and performance evaluation, and the characteristics and uses of options, rights, warrants, convertibles, and futures. Prerequisites: FINA 301 and FINA 320.

FINA 431 International Financial Management (3)
The theory and practices of financial management in an international product and capital marketplace. Topics include the international flow of funds, exchange rate determinants and risk hedging, international arbitrage and interest rate parity, purchasing power parity and the international Fisher effect, instruments of international trade financing, multinational capital budgeting, multinational costs of capital, and multinational capital structure. Prerequisite: FINA 301.

FINA 451 Financial Management: Theory and Applications (3)
Extension of the theory and practices of financial management using a case analysis approach. Topics include financial statement analysis, financial planning and forecasting, risk and return, capital budgeting, lease financing, cost of capital, capital structure, dividend policy, and risk management. Prerequisites: FINA 301; senior standing or consent of instructor.

FINA 495 Independent Study (1-3)

FINA 496 Topics (1-3)

FINA 500 Financial Strategy (3)
Introduction and development of analysis of the financial aspects of a corporation using both theory and application. Topics include capital markets, global economic factors that affect the corporation, capital asset pricing model, portfolio analysis and capital structure policy.

FINE ARTS (FINE)

✓ **FINE 101 The Living Arts-GTAH1 (3)**
An interdisciplinary survey of human creative efforts as they relate to each other. Art, drama, and music are compared with similarities stressed.

FINE 395 Independent Study (1-3)

FINE 396 Topics (1-3)

FINE 495 Independent Study (1-3)

FINE 496 Topics (1-3)

FINE 499 Internship (8,15)
Part or full-time work in various aspects of arts management. Sites may include galleries, musical, theatrical or other performing organizations, arts centers, or other situations that meet the instructor's approval. Half-time equals eight semester hours credit; full-time equals 15 semester hours credit. Prerequisite: junior standing in visual or performing arts. May also require selected courses in business, social science, etc. as appropriate to the internship sought.

FOREIGN LANGUAGES (FLAF, FLAG,FLAJ, FLAS, FLAV, FLSL)

FRENCH

FLAF 111 First-Year French I (3)
FLAF 112 First-Year French II (3)
Introduction to the French language and culture.

FLAF 211 Second-Year French I (3)
FLAF 212 Second-Year French II (3)
Grammar review, vocabulary distinction, and readings in the French language. Prerequisites: two years of high school French, FLAF 111 and 112, or consent of instructor.

FLAF 290 Special Studies In French (1-3)
Study beyond the scope of the existing curriculum.

GERMAN

FLAG 111 First-Year German I (3)
FLAG 112 First-Year German II (3)
Introduction to the German language.

FLAG 211 Second-Year German I (3)
FLAG 212 Second-Year German II (3)
Grammar review, vocabulary distinction, and readings in the German language. Prerequisites: two years of high school German, FLAG 111 and 112, or consent of instructor.

FLAG 290 Special Studies In German (1-3)
Study beyond the scope of the existing curriculum.

JAPANESE

FLAJ 111 Beginning Japanese I (3)
Basic competency in understanding, speaking, reading, and writing Japanese. Beginning familiarity with Japanese culture.

FLAJ 112 Beginning Japanese II (3)
Continued work on basic competency in understanding, speaking, reading, and writing Japanese. Increasing familiarity with Japanese culture.

SPANISH

FLAS 111 First-Year Spanish I (3)
FLAS 112 First-Year Spanish II (3)
Basic competency in understanding, speaking, reading, and writing.

FLAS 114 Conversational Spanish I (3)
FLAS 115 Conversational Spanish II (3)
A beginning level class for adult students who wish to develop a basic vocabulary for speaking and understanding Spanish socially, on the job or south of the border.

FLAS 118 Career Spanish (3)
For students with a background in FLAS 111 and 112 [First Year Spanish I & II] or their equivalent who wish to perfect command of the language in a variety of workplaces and professional areas of interest. Prerequisites FLAS 111, FLAS 112 [or their equivalent].

FLAS 211 Second-Year Spanish I (3)
FLAS 212 Second-Year Spanish II (3)
Reinforces and expands the four basic language skills developed in the first-year course and provides exposure to a wider variety of cultural materials and situations. Prerequisites: two years of high school Spanish, FLAS 111 and 112, or consent of instructor.

FLAS 290 Special Studies in Spanish (1-3)

FLAS 295 Independent Study (1-3)

FLAS 301 Advanced Spanish Grammar (3)
A thorough review and intensive practice of all the basics of Spanish grammar, including pronouns, verb tenses (both indicative and subjunctive), prepositions, and more. This course includes the writing of short compositions. Prerequisites: FLAS 212 or permission of instructor.

FLAS 302 Advanced Spanish Composition (3)
Writing of well-structured and clearly-planned compositions of varying length. Provides the opportunity for students to do research in Spanish and prepares them for the writing of regular term papers in Spanish. Prerequisite: FLAS 301.

FLAS 311 History and Culture of Spain (3)
History and culture of Spain from its early inhabitants through the twentieth century. Short written or oral reports in Spanish on a variety of topics are regularly assigned, with emphasis on improving speaking, reading, and writing skills. Prerequisites: FLAS 212, 301, 302, and 314 or permission of instructor.

FLAS 312 History and Culture of Latin America (3)
History and culture of Latin America from its early inhabitants through the twentieth century. Short written or oral reports in Spanish on a variety of topics are regularly assigned, with emphasis on improving speaking, reading, and writing skills. Prerequisites: FLAS 212, 301, 302, and 314 or consent of instructor.

FLAS 314 Advanced Spanish Conversation (3)
Conversational practice in Spanish over a wide range of topics, working towards a greater command of Spanish grammar, vocabulary, and Hispanic culture. Prerequisite: FLAS 212 and 301.

FLAS 321 Introduction to the Literature of Spain (3)
Introduction to the literature of Spain from the Middle Ages through the twentieth century, including excerpts from major works in poetry, narrative, and theater and by such authors as Cervantes, Perez-Galdos, and Garcia-Lorca. Prerequisites: FLAS 212, 301, 302, and 314 or permission of instructor.

FLAS 322 Introduction to the Literature of Latin America (3)
Introduction to the literature of Latin America from the colonial period through the twentieth century, including excerpts from major works in poetry, narrative, and theatre and by such authors as Sor Juana, Borges, Neruda, and Garcia-Marquez. Prerequisites: FLAS 111, 112, 211, 212, 301, 302, and 314.

FLAS 396 Topics (1-3)

FLAS 411 Spanish and the Nature of Language (3)
Introduction to the study of human language with Spanish as the primary source for description, exemplification and analysis. Prerequisites: FLAS 301, FLAS 302, and FLAS 314.

FLAS 421 Hispanic Poetry (3)
Exploration of peninsular and/or Latin-American poetry, poets, and poetic forms. May include poetry written by Hispanic authors in the United States. Prerequisites: FLAS 212, 301, 302, 314, 321, and 322.

FLAS 422 Hispanic Prose (3)
Exploration of peninsular and/or Latin-American prose, including the novel, short story, and/or essay. May include prose written by Hispanic authors in the United States. Prerequisites: FLAS 212, 301, 302, 314, 321, and 322.

FLAS 423 Hispanic Drama and Film (3)
Exploration of peninsular and/or Latin American dramatic texts and/or cinema. May include plays and films by Hispanic authors in the United States. Prerequisites: FLAS 212, FLAS 301, FLAS 302, FLAS 314, FLAS 321, and FLAS 322.

FLAS 431 Spanish for Medical and Social Services (3)
Acquisition and refinement of superior linguistic and crosscultural skills for health care and social services settings in which Spanish is the predominant language of communication. Prerequisites: FLAS 212, 301, 302, and 314.

FLAS 433 Business Spanish (3)
Exploration of the linguistic and cultural aspects of conducting business in a Hispanic context as well as developing the skills necessary for professional correspondence. Prerequisites: FLAS 212, 301, 302, 311, 312, and 314.

FLAS 434 Translation (3)
Fundamentals of translation. Insights into and practice in the art of translation from its Biblical inception to the latest in machine-generated translation. Particular focus on the Spanish-English language pair. Prerequisites: FLAS 212, 301, 302, and 314.

FLAS 435 Interpreting (3)
Fundamentals of interpreting. Exploration and enhancement of linguistic and cross-cultural skills in the various venues and

modes of Spanish-English interpreting. Prerequisites: FLAS 212, 301, 302, and 314.

FLAS 441 Spanish Phonetics and Phonology (3)
Theory and practice of Spanish phonetics and phonology, with focus on variation in the Hispanic world, Spanish and English in contrast, improvement of pronunciation, and enhancement of the ability to relate sounds to their spelling symbols. Prerequisites: FLAS 212, 301, 302, and 314.

FLAS 442 Methodology of Teaching Foreign Languages (3)
Examination of current trends, methods, and techniques in foreign language pedagogy, including "Standards for Foreign Language Learning: Preparing for the 21st Century," and "Proficiency Guidelines of the American Council on the Teaching of Foreign Languages (ACTFL)." Prerequisites: FLAS 212, 301, 302, 314, and 441.

FLAS 443 Spanish for Public School Teachers (3)
Intensive oral/written practice of Spanish for communication and dialogue between teachers and the Spanish-speaking community. Prerequisites: FLAS 212, 301, 302, and 314.

FLAS 444 Using Technology, Literature and Culture in the Spanish Language Classroom (3)
Examination of current trends and techniques in the use of literature and culture in teaching Spanish. This is based on "the need to integrate the teaching of culture in the language curriculum and the idea that language and culture are inseparably intertwined." (NSFLET, 1996) Prerequisites: FLAS 301, 302, 314, 312, 311, 322, 321, 3 credits each.

FLAS 498 Spanish Senior Practicum (3)
Faculty-coordinated internship consisting of work-oriented instruction in Spanish involving classroom or laboratory experiences and/or research. Prerequisites: FLAS 212, 301, 302, 311, 312, 321, and 322, plus at least nine credit hours completed in any one of the three Spanish major concentrations.

OTHER LANGUAGES

FLAV 196 Topics: (1-3)

FLAV 290 Special Studies in Foreign Languages (1-6)
These courses are currently offered through Outreach: Ancient Greek, Latin, Advanced French, German, Spanish and other Classical and Modern Languages as permitted by interest and instructor availability.

FLAV 295 Independent Study (1-3)

FLAV 296 Topics (1-3)

FLAV 390 Special Studies in Foreign Languages (1-3)
These courses are currently offered through Outreach: Ancient Greek, Latin, Advanced French, German, Spanish and other Classical and Modern Languages as permitted by interest and instructor availability.

FLAV 395 Independent Study (1-3)

FLAV 396 Topics (1-3)

FLAV 495 Independent Study (1-3)

FLAV 496 Topics (1-3)

AMERICAN SIGN LANGUAGE (FLSL)

FLSL 111 American Sign Language I (3)
Basic receptive and expressive skill acquisition in American Sign Language (ASL) and other signing modes. Includes approximately 400 vocabulary items; the manual alphanumeric system; interrogatives; subject, object, possessive pronouns; simple present, past, and future verb tense formation.

FLSL 112 American Sign Language II (3)
Receptive and expressive skill practice in American Sign Language (ASL) and other signing modes. Includes approximately 800 vocabulary terms; classifiers; numeral incorporation; fingerspelling, loan signs, directional verbs; body and facial language. Prerequisite: FLSL 111.

GEOGRAPHY (GEOG)

✓ **GEOG 103 World Regional Geography-GTSS2 (3)**
Survey of world geography by major world regions including an analysis of the physical elements, the inhabitants, and human occupancy patterns and an evaluation of the potential of each region for sustaining human populations.

GEOG 131 Introduction to Cartography (3)
Introduction to maps as tools for communication and analysis of locationally related information, including an introduction to concepts in Geographic Information Systems (GIS) and Global Positioning Systems (GPS).

GEOG 196 Topics (1-3)

GEOG 296 Topics: (1-3)

GEOLOGY (GEOL)

✓ **GEOL 100 Survey of Earth Science-GTSC2 (3)**
Physical makeup of the earth, its history, and geology. One field trip is required. Intended for students with majors other than one of the sciences.

✓ **GEOL 103 Weather and Climate-GTSC2 (3)**
Non-mathematical introduction to elements of local and global weather: the atmosphere, cloud formation, precipitation, seasons, optical phenomena and violent storms. Students practice making 24-hour weather forecasts.

✓ **GEOL 104 Oceanography-GT-SC-2 (3)**
Non-mathematical introduction to the scientific study of the ocean. While the course focuses on the hydrosphere subsystem of the Earth System, the atmosphere, cryosphere, lithosphere and biosphere interrelationship with the hydrosphere are also examined.

✓ **GEOL 105 Geology of Colorado-GTSC2 (3)**
Introduction to minerals, rocks, geologic time scale and basic geologic terms, followed by geology of Colorado taught with the aid of movies and slides. A one-day field trip is required.

✓ **GEOL 106 Introduction to Dinosaurs-GT-SC2 (3)**
Introduction to the study of dinosaurs, from geological, biological and historical perspectives. Intended for students interested in how different areas of science can be applied to a subject of strong human interest. Includes two full-day field trips to local dinosaur quarries and museums.

✓ **GEOL 107 Natural Hazards and Environmental Geology-GTSC2 (3)**
Introduction to geologic aspects of our environment. Includes studies of natural hazards, global climate change, geologic resources and emphasizes human interactions with the environment.

✓ **GEOL 111 Principles of Physical Geology-GTSC1 (3)**
✓ **GEOL 111L Principles of Physical Geology Laboratory-GTSC1 (1)**
Materials that make up the earth and surface and interior processes that interact to produce the present features of the earth. Laboratory: minerals, rocks, topographic maps, earth quakes, and landforms. Three lectures and one two-hour laboratory per week.

✓ **GEOL 112 Principles of Historical Geology-GTSC1 (3)**
✓ **GEOL 112L Principles of Historical Geology Laboratory-GTSC1 (1)**
Origin of the earth and life, changes recorded in rocks and fossils using the geologic time scale and techniques of dating to place events in sequence. Laboratory: topographic and geologic maps, hand samples of rocks, reconstruction exercises, and fossils to interpret regional and general geologic history. One all-day field trip is required. Four lectures and one two-hour laboratory per week. Prerequisite: GEOL 111/111L or GEOL 113/113L or consent of instructor.

✓ **GEOL 113 Field-Based Introduction to Physical Geology-GTSC1 (3)**
✓ **GEOL 113L Field-Based Introduction to Physical Geology Laboratory-GTSC1 (1)**
Introduction to minerals, rocks, Earth structures, mountain building processes, and other elements of physical geology for science and non-science majors. A majority of class time will be spent in the field (including one Saturday) observing and mapping geological features of Western Colorado. There will be some indoor lectures and laboratory work. This course is recommended for prospective K-12 teachers.

GEOL 196 Topics (1-3)

GEOL 202 Introduction to Field Studies (3)
Mapping of several small areas using GPS, transit, and pace and compass methods. Profiles, cross-sections, and maps are prepared. Some unscheduled time is required to do mapping projects. Prerequisite: consent of instructor.

GEOL 204 Computer Applications in Geology (3)
Quantitative methods of geologic data analysis with the data manipulated on the computer. Methodical approach with limited theoretical emphasis; statistical concepts; special programs for graphical presentation and analysis. Three lectures per week and computer laboratory time to complete exercises are required. Prerequisites: GEOL 111/111L or GEOL 113/113L, and GEOL 112/112L, and STAT 200 (recommended but not required) or consent of instructor.

GEOL 250 Environmental Geology (3)
Geologic aspects of environmental problems involving natural processes and anthropogenic activities. Studies include landslides, earthquakes, flooding, coastal erosion, and land subsidence as well as environmental impacts of mineral resource extraction, soil erosion, fossil fuel consumption, and climate change. Prerequisites: GEOL 100 or 104 or 105 or 111 or 113.

GEOL 296 Topics (1-3)

GEOL 301 Structural Geology (3)
GEOL 301L Structural Geology Laboratory (1)
Stress and strain in rock bodies. Description and occurrence of both brittle and ductile rock structures. Laboratory: stereographic and graphical solution of structural problems, the study of maps and cross sections, and some field problems. Three lectures and one two-hour laboratory per week. Four one-day field trips are taken. Prerequisites: GEOL 202, 204, and 111/111L or 113/113L, and MATH 130.

GEOL 305 Cartography for GIS (1)
Introduction to maps as tools for communication and analysis of locationally-related information.

GEOL 321 Introduction to Remote Sensing (2)
GEOL 321L Introduction to Remote Sensing Laboratory (1)
Remote sensing systems and applications; characteristics of photographs, scanner and radar imagery interpretation. Two one-hour lectures and one two-hour laboratory per week. Prerequisites: GEOL 332/332L, BIOL 332/332L, or ENVS 332/332L.

GEOL 325 Introduction to Engineering Geology (3)
Geologic principles applied to construction problems; case histories of major projects. Field trips and term project required. Prerequisite: GEOL 111/111L or GEOL 113/113L or consent of instructor.

GEOL 331 Crystallography and Mineralogy (3)
GEOL 331L Crystallography and Mineralogy Laboratory (1)
Morphology and classification of crystals; chemistry and genesis of minerals. Laboratory: identification of crystal systems and class, hand specimen identification of minerals, some X-ray diffraction work. Three lectures and one two-hour laboratory per week. Prerequisite: GEOL 202, 204, and CHEM 131 or consent of instructor.

GEOL 332 Introduction to Geographic Information Systems (2)
GEOL 332L Introduction to Geographic Information Systems Laboratory (1)
Basic knowledge of the fundamentals of GIS with regard to theoretical, technical, and application issues. Prerequisites: GEOL 305 or GEOG 131.

GEOL 333 Geology of the Canyon Country (1)
Three two-hour evening lectures with films and slides used to preview geology of the Colorado Plateau. A five-day field

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

trip to the selected sites is conducted during spring break. Prerequisites: GEOL 100, 105 or 112.

GEOL 340 Igneous and Metamorphic Petrology (3)
GEOL 340L Igneous and Metamorphic Petrology Laboratory (1)
Origin, composition and classification of igneous and metamorphic rocks. Laboratory: identification of igneous and metamorphic rocks in hand specimens. Three lectures and one two-hour laboratory per week. Prerequisite: GEOL 331.

GEOL 351 Applied Geochemistry (3)
Geochemistry and its relationship to weathering and soils, geochemical surveys and prospecting techniques, reactions of contaminants with earth materials, and methods of reducing environmental degradation. Prerequisites: CHEM 121/121L, CHEM 122/122L, and GEOL 111/111L or GEOL 113/113L.

GEOL 355 Basic Hydrology (3)
Introduction to physical hydrologic processes including precipitation, evapotranspiration, infiltration, runoff and subsurface flow. Examination of hydrologic modeling, problem solving, and monitoring techniques as well as water resource management issues at both local and global scales. Prerequisite: MATH 113, or MATH 151 or consent of instructor.

GEOL 359 Survey of Energy-Related Natural Resources (3)
Origin, location, and economics of non-metallic geologic commodities, including phosphates, evaporites, oil, gas, coal, and sedimentary uranium deposits. Students give oral and written reports on two localities. Prerequisites: GEOL 111/111L or GEOL 113/113L; CHEM 131/131L, or consent of instructor.

GEOL 361 Survey of Mineral-Related Natural Resources (3)
The genesis, description, and exploitation of metallic and non-metallic natural resources consumed by modern society, such as base-metals, precious metals and gems, aggregates and construction materials, fertilizers, and chemical-industrial commodities. Environmental, economic, and socio-political issues associated with utilization of these resources will also be addressed. At least one field trip to a local resource area will be arranged. Three lectures per week. Prerequisites: GEOL 111/111L or GEOL 113/113L, and CHEM 131, 131L, or consent of instructor.

GEOL 370 Renewable Energy (3)
An introduction to renewable energy resources from a technical perspective with an emphasis on sustainability. Topics include an introduction to the concepts of energy and power, units of measure, sources and forms of energy, uses of energy, energy efficiency, electricity, solar thermal and photovoltaics, bioenergy, hydropower, tidal power, wave power, wind power, geothermal, hydrogen, efficient building design and integration of renewables with current energy supplies.

GEOL 375 Global Positioning Systems for GIS (2)
GEOL 375L Global Positioning Systems for GIS Laboratory (1)
GPS techniques and applications as they relate to GIS data collection. Prerequisites: GEOL 332 and 332L, or BIOL 332 and 332L, or ENVS 332 and 332L.

GEOL 393 Co-operative Education (3-12)

GEOL 394 Natural Resources of the West (1)
Seminars covering topics related to natural resources including water, soil, land, mineral and energy resources in the western United States. Guest speakers are invited from the academic community, industry or government agencies to give formal oral presentations followed by informal discussion with students and faculty. The course may be repeated for a maximum of four semester hours of credit.

GEOL 395 Independent Study (1-3)

GEOL 396 Topics (1-3)

GEOL 402 Applications of Geomorphology (3)
GEOL 402L Applications of Geomorphology Laboratory (1)
Knowledge of landform genesis and shaping processes is applied to solve modern problems with emphasis on local soils, slopes, rivers, erosional surfaces, and structural framework. Laboratory and field studies used to explore frost, running water, slope movement, ground water, wind, and glaciers which have affected the local environment. Practical techniques of measurement and interpretation, including statistical and computer techniques, used to produce models of landscape development. A term project must be completed. Two major field trips are required. Four lectures and one two-hour laboratory per week. Prerequisite: GEOL 202 and GEOL 204 and consent of instructor.

GEOL 404 Geophysics (3)
GEOL 404L Geophysics Laboratory (1)
Exploration for mineral and petroleum and preliminary investigation of sites for engineering and environmental projects with emphasis on refraction and reflection seismic, gravity, magnetic, electrical, electromagnetic ground-penetrating radar and radioactive methods. Laboratory: interpretation of data, computer applications, and field trips. Four lectures and one two-hour laboratory per week. Prerequisites: GEOL 202 and GEOL 204, GEOL 111/111L or GEOL 113/113L, and GEOL 112/112L, and PHYS 112, (calculus is recommended but not required) or consent of instructor.

GEOL 405 Solid Earth Geophysics (3)
Classical physics applied to the study of the earth with emphasis on the origin of the earth, its gravitational, geomagnetic, and geothermal characteristics, seismicity, the dynamics of the earth's crust, plate tectonics, and continental drift. One field trip required. Prerequisites: GEOL 404 or consent of instructor.

GEOL 411 Paleontology (3)
GEOL 411L Paleontology Laboratory (1)
Taxonomy, morphology, ecology, and geologic range of most groups of invertebrate fossils. Laboratory: field identifications of guide fossils. A one-day field trip is required. Two lectures and one two-hour laboratory per week. Prerequisite: beginning Biology course or consent of instructor.

GEOL 415 Introduction to Ground Water (3)
GEOL 415L Introduction to Ground Water Laboratory (1)
Relationships of ground water to other water sources, hydrologic cycle, water balance, hydrologic characteristics of rocks, hydraulics and equations defining flow, ground water quality, and contamination, exploration and measurement techniques (including geophysical procedures), state and federal regulations, and computer modeling. Laboratory: Acquisition, analysis, and interpretation of ground water data. Prerequisites: GEOL 111/111L or GEOL 113/113L, and MATH 151, and at least high school level biology, chemistry and physics. Three lectures and one two-hour laboratory per week.

GEOL 432 Advanced Geographic Information Systems (2)
GEOL 432L Advanced Geographic Information Systems Laboratory (1)
Emphasis on the set of analytical operations provided by this technology and the specific conditions, requirements, and processing considerations surrounding effective GIS modeling and decision making. Prerequisites: GEOL 332 and 332L, or BIOL 332 and 332L, or ENVS 332 and 332L, or GEOL 375 and 375L, or ENVS 375 and 375L. GEOL 321 and 321L recommended.

GEOL 444 Sedimentology and Stratigraphy (3)
GEOL 444L Sedimentology and Stratigraphy Laboratory (1)
Physical, chemical, and biological characteristics of sedimentary rocks, with emphasis on depositional processes and environments, diagenesis, stratigraphic sequences, and correlation. Laboratory emphasis is on description and classification of sedimentary rocks, analysis of depositional environments, and stratigraphic problems. One weekend field trip is required. Prerequisites: GEOL 111/111L or GEOL113/113L, GEOL 112/112L, GEOL 202, GEOL 204, GEOL 331/331L, and CHEM 131/131L.

GEOL 445 Geospatial Database and Design (2)
GEOL 445L Geospatial Database and Design Laboratory (1)
Creating, editing, and managing geodatabases and working with topology for implementation with GIS. Term project is required. Two lectures and one two-hour lab per week. Prerequisite: GEOL 432/432L.

GEOL 455 River Dynamics (3)
GEOL 455L River Dynamics Laboratory (1)
Introduction to river forms and processes, including basic open-channel hydraulics, sediment transport, fluvial geomorphology and human interactions with river systems. Lab covers field, lab, and computer techniques to understand and model river forms and processes, including human interactions with river systems. Prerequisite: GEOL 355 or consent of instructor.

GEOL 480 Summer Field Camp (6)
This course involves basic training in field geology. Students will perform a variety of geologic mapping exercises using topographic maps and air photos. Students will gain an appreciation of geologic maps - how they are made, the uncertainties and unknowns in mapping, and how mappers deal with them. Most mapping exercises are in deformed sedimentary strata and Quaternary surficial deposits. Some field exercises will involve collection and interpretation of hydrological data. The course is a six full weeks in duration, beginning immediately after conclusion of Spring Semester. Students should not expect to have weekends or holidays off. Students will also be camping out at least half the time or more during this course. Prerequisites: GEOL 111/111L or GEOL 113/113L, GEOL 112/112L, GEOL 301/301L. GEOL 444/444L recommended.

GEOL 490 Seminar (3)
Well logging techniques and characteristics of well logs; recent developments, concepts, and theories relating to petroleum, mineral deposits, tectonics; and other topics of current interest are discussed by students in a seminar setting. Prerequisites: upper division standing and consent of instructor.

GEOL 493 Co-operative Education (3-12)

GEOL 495 Independent Study (1-3)

GEOL 496 Topics (1-3)

GEOL 497 Structured Research (1-3)
Geological research under the direct guidance of a faculty member. Designed for junior and senior level students. Prerequisite: permission of instructor.

HEALTH CARE (HSCI)

HSCI 101 Introduction to Health Care Professions (3)
Explores the nature of services provided, opportunities within selected fields, and relationships of fields within health sciences. Concepts include: medical terminology, safety and accident prevention, professionalism, legal aspects, safety, communication and math skills, and infection control.

HISTORY (HIST)

✓ **HIST 101 Western Civilizations-GTHI1 (3)**
✓ **HIST 102 Western Civilizations-GTHI1 (3)**
Political, social, economic, and cultural history of Western mankind from ancient times to modern times.

✓ **HIST 131 United States History-GTHI1 (3)**
✓ **HIST 132 United States History-GTHI1 (3)**
History of the United States from Colonial period to modern times.

HIST 137 Latinos in the United States (3)
Survey of historical issues affecting people of Latino heritage in the United States.

HIST 202 Introduction to Historical Research (3)
An introduction to the methods and areas of historical research, with the intent of preparing students for research requirements of upper-division history courses. Prerequisites: 6 hours selected from HIST 101, 102, 131, and 132.

HIST 225 History of Colorado (3)
History of the state from pre-historic to modern times.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

HIST 296 Topics (1-3)

HIST 301 History of England Since 1485 (3)
England, Great Britain and the Empire/ Commonwealth from the first Tudor to the present. Prerequisites: HIST 101, 102.

HIST 302 History of Modern France (3)
France from the Revolution of 1789 to the present. Prerequisite: HIST 102 or consent of instructor.

HIST 303 History of Modern Germany (3)
Origins and development of the modern Germany nation-state from 1860 to the present. Prerequisite: HIST 102 or consent of instructor.

HIST 305 The Old South (3)
The uniqueness of the Antebellum South, the growth of Southern nationalism, and the politics of the Late National period. Prerequisite: HIST 131.

HIST 306 History of South and Southeast Asia (3)
History of those areas of Asia within the influence of Indic Civilization, with emphasis on the roles of Hindu, Buddhist, and Muslim religions. Prerequisites: HIST 101, 102.

HIST 310 Latin American Civilization (3)
Historical development of Latin America from pre-Columbian times to the present. Prerequisite: HIST 102 or consent of the instructor.

HIST 315 American Indian History (3)
American Indian history from pre-Columbian America to the present with an emphasis on federal Indian policy. Case studies will also address the adaptation of Indian people to changing social and economic conditions. Prerequisites: HIST 131 and 132.

HIST 316 American Slavery (3)
Exploration of the development of race slavery and an examination of slave life in colonial North America and the United States from Colonization through reconstruction. Prerequisite: HIST 131.

HIST 320 The American West (3)
The American West from pre-Columbian times through the Twentieth Century with special emphasis on the diverse cultures and ecological factors that have defined the region. Prerequisites: HIST 131, 132, or consent of instructor.

HIST 330 History of 19th Century Europe (3)
Political, social, intellectual, and diplomatic forces operating in Europe between the French Revolution and World War I. Prerequisites: HIST 101, 102.

HIST 331 The 20th Century (3)
Investigation of the development of our modern world since World War I with emphasis on Europe and its role in that process. Prerequisites: HIST 101, 102 or consent of the instructor.

HIST 332 History of Modern Warfare (3)
War, its causes, consequences, and impact on history from the 18th century to the present. Prerequisites: HIST 101, 102.

HIST 340 History Of the Middle East (3)
History of the Middle East and North Africa from the period of pre-Islamic Arabia through modern times, including the Umayyad, Abbasid, and Ottoman empires. Prerequisites: HIST 101 and HIST 102.

HIST 342 The Early American Republic (3)
The social, cultural, intellectual and political developments in America from 1783-1850. Prerequisites: HIST 131, 132, or consent of instructor.

HIST 344 The Age of Industry in America (3)
The social, intellectual, and political events in the United States from the end of the Civil War to the beginning of the Great Depression. Prerequisites: HIST 131, 132, or consent of instructor.

HIST 346 The United States in the 1950's and 1960's (3)
The social, intellectual, and political Events in the U.S. form the end of WWII through the 1960s. Prerequisites: HIST 131, 132, or consent of instructor.

HIST 347 Global America: 1970-2000 (3)
The political and social implications of America as the dominant global power, from 1970 to the present. Prerequisite: HIST 132.

HIST 350 Renaissance and Reformation (3)
Examines the political and social context of the Renaissance and Reformation. Prerequisites: HIST 101.

HIST 355 Ancient and Medieval Cities (3)
The development (physical, social, political) of cities in the ancient and medieval periods and their role in early western civilization. Prerequisite: HIST 101.

HIST 360 Medieval Europe (3)
Examines the political, social, and religious institutions of Medieval Europe (300-1475). Prerequisites: HIST 101, 102.

HIST 370 Early United States Women's History (3)
Historical survey of cultural, economic, and political contributions of American women from colonization to Reconstruction. Prerequisites: HIST 131, 132.

HIST 371 20th Century United States Women's History (3)
Historical survey of cultural, economic, and political contributions of American women from Reconstruction to the present. Prerequisites: HIST 131, 132.

HIST 375 American Sport History (3)
An examination of American society from the Colonial era to the present through the lens of sport. Prerequisite: HIST 131 or 132. Both courses are recommended.

HIST 395 Independent Study (1-3)

HIST 396 Topics (1-3)

HIST 396E Topics (1-3)

HIST 400 The Soviet Union and Eastern Europe (3)
Imperial Russia, the Soviet Union, and Eastern Europe from 1900 to the present. Prerequisite: HIST 101, 102 or consent of instructor.

HIST 401 East Asia: The Formative Period (3)
China, Japan, Korea, and Vietnam before the coming of the West. Prerequisites: HIST 101, 102.

HIST 403 East Asia and the Modern World (3)
China, Japan, Korea, and Vietnam since 1840. Prerequisite: consent of instructor. Prerequisites: HIST 101, 102.

HIST 404 Senior Seminar in Historical Research (3)
History-specific research with emphasis on utilization of primary documents and practice in conducting research and reporting results. Prerequisites: HIST 202 and twelve hours of upper division History or consent of instructor.

HIST 405 Introduction to Public History (3)
Exploration of non-academic historical skills employed in museum work, archival management, and positions with historical societies and historic preservation agencies. Career opportunities will be examined. Prerequisites: HIST 131, 132, or consent of instructor.

HIST 406 History of the African Continent (3)
The development of African cultures from the ancient to modern periods, with particular attention to interaction with non-African cultures. Prerequisites: HIST 101 and HIST 102, or consent of instructor.

HIST 410 Environmental History of the United States (3)
The evolution of public attitudes and governmental policies and practices relative to the wilderness, natural resource development, and the natural environment from colonial times to the present. Prerequisites: HIST 131, 132, or consent of instructor.

HIST 415 Colonial America (3)
Examines the development of colonial society in North America and the tensions that arose between Native American, European, and African people and cultures. Prerequisite: HIST 131.

HIST 416 The American Revolution (3)
An overview of and perspectives on the causes and outcomes of the American Revolution. Prerequisite: HIST 131.

HIST 420 Civil War (3)
The causes and outcomes of the American Civil War. Prerequisites: HIST 131, or consent of instructor.

HIST 430 The Ancient Mediterranean World (3)
The Mediterranean world from pre-classical times to the fall of the Roman Empire. Prerequisites: HIST 101, 102, or consent of instructor.

HIST 435 Classical Archaeology (3)
Examines the archaeological evidence for some of the ancient Mediterranean civilizations and how the historian uses archaeology to better understand the ancient world. Prerequisite: HIST 101.

HIST 440 Early and Medieval Christianity (3)
Examines the historical development of Christianity through the middle ages, focusing on the social (marriage and family) and political (kingship) consequences of Christianity. Prerequisites: HIST 101.

HIST 495 Independent Study (1-3)

HIST 496 Topics (1-3)

HIST 496E Topics (1-3)

HIST 499 History Internship (1-3)
Experience with historical work in settings outside the university community, including museums, archives, and local, state, and federal agencies. Instructor permission required and internship must be arranged during the semester prior to the field experience. Prerequisites: Nine upper division hours in history and junior status.

HONORS (HNRS)

HNRS 196 Topics: (1-3)

HNRS 396 Topics (1-3)

HNRS 498 Honors Thesis (3)

HOSPITALITY MANAGEMENT (HMGT)

HMGT 101 Travel Industry I (3)
Introduction to tourism and its relationship to the business world, an overview of all sectors of business and the components of the travel, tourism, and hospitality industry. Travel methods, destination resorts, and other businesses which serve the traveler are evaluated. A requirement for all Hospitality Management students.

HMGT 102 Travel Industry II (3)
Evaluation of job opportunities in the travel, recreation, and hospitality fields. Travel trends, feasibility studies, and marketing techniques are analyzed. Students are provided an opportunity to make preparations and acquire skill instructions for work in the student's career objective. Field trips and visiting lecturers are included. Prerequisite: HMGT 101 or consent of instructor.

HMGT 103 Travel and Tourism Marketing Techniques (3)
Interpretation of marketing problems, strategies, and techniques of industries engaged in serving the traveler, methods of identifying potential markets, preferences, and likely responses to promotional programs of private and governmental travel entities. Required of all Hospitality Management students. MARK 231 recommended for baccalaureate students. Prerequisite: HMGT 101 or consent of instructor.

HMGT 199 Employment Concepts (1)
Introduction of the concepts of employment in conjunction with the internship experience. It will provide students with an opportunity to share their concerns with the instructor and other students, allow employers to discuss the internship with students and assist the student in developing his or her career goals. The student will enroll in this course the spring semester immediately preceding the summer they intend to do their HMGT 299 Internship. Prerequisites: HMGT 101.

HMGT 201 Management in the Travel Industry I (3)
An opportunity to explore operating techniques and problems of the major industries involved in tourism, travel, and hospitality through the eyes of the operating manager. Specific skills used within various industries are developed. Prerequisite: HMGT 102 or consent of instructor.

HMGT 211 Travel Destinations (3)
For the individual who plans to work, study, or travel internationally including the professional who is, or plans to be, part of the travel industry. Life styles and current local aspects in foreign destinations are considered and guest lecturers are included. Open to all students but strongly recommended for Hospitality Management students.

HMGT 215 Computerized Reservations (3)
An introductory course providing an overview of operation of a computerized reservations system. Prerequisites: HGMT 101 and 102.

HMGT 217 Hotel Operations (3)
Introductory course providing an overview of the operation of a hotel front office. This will include the use of the personal computer and state-of-the-art software for reservations, check-in, check-out and creating the daily report. Prerequisite: HMGT 101.

HMGT 295 Independent Study (1-3)

HMGT 296 Topics (1-3)

HMGT 299 Internship (12)
Classroom studies combined with salaried work in an experience which relates to the student's career goal. Only for, and required of, Hospitality Management students. Credit not available through competency or challenge. Prerequisite: HMGT 102, GPA of 2.00 or higher, or consent of instructor.

HMGT 310 Travel and Tourism Marketing Techniques (3)
Interpretation of marketing problems, strategies, and techniques of industries engaged in serving the traveler. Study will include advanced methods of identifying potential markets, preferences and likely responses to promotional programs of private and public travel entities. Required of all Hospitality Management majors. Prerequisites: HMGT 101, MARK 231 or consent of instructor.

HMGT 350 Private and Commercial Recreation Systems (3)
Profit-based recreation industry, including managing the recreation enterprise, economic feasibility studies, small business entrepreneurship, market characteristics, professional opportunities, and trade association research and publications. Prerequisites: HMGT 101, MANG 201.

HMGT 351 Community Tourism Systems (3)
Community as a tourist destination area with concentration on identification of linkages between tourism industries and local economies, and the process of developing and managing park and recreation resources to serve the tourist. Prerequisites: HMGT 101, HMGT 102, MANG 201.

HMGT 352 Public Recreation Systems (3)
National and state outdoor recreation resource management systems including a variety of administrative tools applicable to operation and maintenance as well as comprehensive discussion of legislation, land use policy, forest recreation planning, and governmental designation programs. Prerequisites: HMGT 101, HMGT 102, MANG 201.

HMGT 400 Hospitality Security and Safety (3)
Individualized security programs. Security and safety equipment and procedures. Guest protection, asset protection, risk management, loss prevention, and OSHA regulations for lodging properties. Prerequisite: BUGB 349.

HMGT 410 Hospitality Facilities Management (3)
Hotel or restaurant physical plant management. Interface with engineering and maintenance departments. Prerequisite: CUAR 262 or consent of instructor.

HMGT 450 Strategic Hospitality Marketing (3)
Strategic and operating marketing plans for hospitality properties. Includes design and delivery of guest services. Prerequisite: MARK 231 or consent of instructor.

HUMANITIES (HUMA)

HUMA 196 Topics (1-3)

HUMA 201 Field Studies in Humanities (1-3)
Study/travel tours of varying lengths in the United States and foreign countries to acquaint students in some depth with particular aspects of world culture (language, the arts, literature, etc.) both contemporary and historical.

HUMA 296 Topics (1-3)

HUMA 300 History and Development of Books (3)
History and development of the book from the development of the alphabet to the present in the context of changing technologies and various social, cultural, and economic influences. Prerequisites: Junior or senior status, or consent of instructor.

HUMA 301 Field Studies in Humanities (1-3)
Prerequisite: junior or above standing.

HUMA 395 Independent Study (1-3)

HUMA 396 Topics (1-3)

HUMA 495 Independent Study (1-3)

HUMA 496 Topics (1-3)

HUMA 499 Internship (8)
See faculty advisor for details.

INTERNATIONAL STUDIES (INTS)

INTS 101 Introduction to International Studies (3)
Introduction to concepts, paradigms and theories used to describe and explain International Studies. Attention given to the interdisciplinary nature of academic disciplines, peoples in cultural context, environments, education systems, world resources, social and economic institutions.

INTS 396 Topics (1-3)

KINESIOLOGY: ACTIVITY (KINA)

The following courses meet the physical activity requirement for graduation. All students seeking a baccalaureate degree must take KINE 100 plus two courses from the activity list. Each activity course is scheduled for an eight-week module and includes lectures on the history, rules, and techniques of the activity and proficiency in the activity. In addition to the required, up to six (6) KINA activity

courses may be used as electives towards a bachelor's degree and three (3) towards an associate's degree.

KINA 101 Beginning Swimming (1)
KINA 102 Intermediate Swimming (1)
KINA 103 Diving (1)
KINA 104 Water Polo (1)
KINA 105 Water Aerobics (1)
KINA 106 Scuba I (1)
KINA 107 Scuba II (1)
KINA 108 Canoeing (1)
KINA 109 Kayaking (1)
KINA 110 River Rafting (1)
KINA 111 Rock Climbing (1)
KINA 112 Hiking (1)
KINA 113 Beginning Bowling (1)
KINA 114 Intermediate Bowling (1)
KINA 115 Beginning Golf (1)
KINA 116 Intermediate Golf (1)
KINA 117 Badminton (1)
KINA 118 Karate (1)
KINA 119 Archery (1)
KINA 120 Backpacking (1)
KINA 121 Beginning Tennis (1)
KINA 122 Intermediate Tennis (1)
KINA 123 Racquetball (1)
KINA 124 Intermediate Racquetball (1)
KINA 125 Handball (1)
KINA 126 Fitness Walking (1)
KINA 127 Physical Conditioning (1)
KINA 128 Intermediate Weight Training (1)
KINA 129 Weight Training (1)
KINA 130 Fitness (1)
KINA 131 Low-Impact Aerobics (1)
KINA 132 High-Impact Aerobics (1)
KINA 133 Downhill Skiing (1)
KINA 134 Snowboarding (1)
KINA 135 Telemark Skiing (1)
KINA 136 Body Shaping (1)
KINA 137 Fencing (1)
KINA 138 Step Aerobics (1)
KINA 139 In-Line Skating (1)
KINA 140 Snowshoeing (1)
KINA 141 Mountain Biking (1)
KINA 142 Self-Defense (1)
KINA 143 Orienteering (1)
KINA 144 Pilates (1)
KINA 145 Wrestling (1)
KINA 146 Indoor Cycling (1)
KINA 147 Track and Field (1)
KINA 148 Gymnastics (1)
KINA 150 Adaptive Aquatics (1)
KINA 151 Adaptive Physical Activity (1)
KINA 152 Softball (1)
KINA 153 Adaptive Aquatics II (1)
KINA 156 Soccer (1)
KINA 157 Adaptive Physical Activity II (1)
KINA 158 Speedball (1)
KINA 159 Aikido (1)
KINA 161 Two-Person Outdoor Volleyball (1)
KINA 162 Volleyball (1)
KINA 163 Intermediate Volleyball (1)
KINA 164 Beginning Basketball (1)
KINA 165 Intermediate Basketball (1)
KINA 166 Flag Football (1)
KINA 167 Tai Chi (1)
KINA 168 Hatha Yoga & Relaxation I (1)
KINA 169 Hatha Yoga & Relaxation II (1)
KINA 172 Square Dance (1)
KINA 173 Folk Dance (1)
KINA 174 Social Dance (1)
KINA 179 Dance Performance Group (1)

Prerequisites for all "intermediate" or Part II courses; the corresponding course or consent of the instructor.

KINA 180, 280,380, 480 Varsity Football (1)
KINA 181, 281, 381, 481 Varsity Basketball (1)
KINA 182, 282, 382, 482 Varsity Baseball (1)
KINA 183, 283, 383, 483 Varsity Swimming (1)
KINA 184, 284, 384, 484 Varsity Tennis (1)
KINA 185, 285, 385, 485 Varsity Volleyball (1)
KINA 186, 286, 386, 486 Varsity Softball (1)
KINA 187, 287, 387, 487 Varsity Soccer (1)
KINA 188, 288, 388, 488 Varsity Golf (1)
KINA 189, 289, 389, 489 Varsity Cross Country (1)
KINA 190, 290, 390, 490 Varsity Track and Field (1)
KINA 191, 291, 391, 491 Varsity Wrestling (1)
KINA 192, 292, 392, 492 Varsity Lacrosse (1)
KINA 193, 293 Varsity Cheerleading (1)

Physical activity courses numbered 180-193 designate the first year of varsity athletics; 280-290, the second; 380-392, the third; and 480-492 the fourth. These courses must be taken in sequence.

In addition to the rules above for KINA courses, the following apply: Only one varsity sport activity course, numbered KINA 180-193, may be used to meet the University physical activity requirement.

A student may elect to register for a particular varsity sports class for credit as many as four times (once each level).

Varsity sports activity credit at the 300 and 400 levels may not be counted towards the forty (40) credit hour upper division requirement for graduation unless they are a required part of a degree program.

KINESIOLOGY: ACADEMIC (KINE)

KINE 100 Health and Wellness (1)
The presentation of information concerning the benefits, positive effects, assessment, and implementation of healthy life styles.

KINE 200 History and Philosophy of Sport and Physical Education (3)
Discusses the breadth, scope, and nature of the profession. Orientation to the history and philosophy of human performance and the factors that influence its evolution. Special consideration is given to the history of sport from antiquity to the present, particularly the Olympic Games.

KINE 205 Introduction to Sport Management (3)
Survey and introduction to the field of sport management.

KINE 211 Methods of Lifetime, Individual, and Dual Activities (3)
Instructional content (scope and sequence) and teaching methodology related to various individual, dual and lifetime activities appropriate for K-12 physical education.

KINE 213 Applications of Physical Fitness and Exercise Prescription (3)
Exercise program design and prescription to meet individual needs, assess existing exercise programs, and evaluation of the effectiveness. Major components of cardio-respiratory endurance, muscular strength, muscular endurance, flexibility, and body composition discussed in detail.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

KINE 214 Methods of Team Activities (3)
Instructional content (scope and sequence) and teaching methodology related to various team activities appropriate for K-12 physical education. Prerequisite: KINE 211 or consent of instructor.

KINE 220 Methods of Dance and Gymnastics (3)
Instructional content (scope and sequence) and teaching methodology related to types of dance and gymnastics. Includes folk, line, square and social dance, and education, Olympic, and rhythmic gymnastics. Prerequisite: KINE 211.

KINE 234 Prevention and Care of Athletic Injuries (3)
Procedures and techniques involved in preventing and treating common injuries associated with competitive athletics.

KINE 240 Introduction to Clinical Athletic Training (2)
Introduction to fundamental athletic training skills, policies and procedures. Required for admission into the Athletic Training Education Program. Prerequisite: KINE 234, may be taken concurrently.

KINE 250 Lifeguard Training (3)
An American Red Cross course leading to certification of qualified students.

KINE 251 Water Safety Instructor Course (3)
An American Red Cross course leading to certification of qualified students.

KINE 256 Creative Play and Literacy (3)
Acquaints students with instructional content, including proper content, progression, and literary integration that is appropriate for elementary physical education. Prerequisite: KINE 211.

KINE 260 School and Personal Health (3)
School and personal health problems with emphasis on the development of proper health attitudes and practices, and application of health knowledge and practice in school situations. Prerequisite: KINE 100.

KINE 265 First Aid and CPR for the Professional Rescuer (3)
Knowledge and skills required to meet the needs of first aid and CPR situations that lead to obtaining valid First Aid and CPR for the Professional Rescuer cards.

KINE 296 Topics: (1-3)

KINE 297 Practicum (1-2)
Supervised assistantship with physical educators or recreation practitioners.

KINE 301 Tests and Measurements in Sport and Physical Education (3)
Modern testing and evaluation methods applied to the field of kinesiology, including the areas of biological, neuromuscular, cognitive, social and affective development. The selection of appropriate measuring devices and their interpretation is an integral part of the course. Prerequisite: KINE 200.

KINE 303 Physiology of Exercise (3)
KINE 303L Physiology of Exercise Laboratory (1)
The effects of various types of exercise upon human body structure and function. Three one-hour lectures and one two hour laboratory per week. Prerequisites: KINE 213 and BIOL 209, 209L.

KINE 307 Philosophy and Psychology of Coaching (3)
Fundamental philosophical and psychological principles related to coaching competitive athletic teams.

KINE 309 Anatomical Kinesiology (3)
A comprehensive study of the musculature of the human body. Analysis of joint movement and muscular involvement in various physical activities will be emphasized in this course. Corequisite: KINE 309L. Prerequisites: BIOL 209, 209L, KINE 200.

KINE 309L Anatomical Kinesiology Laboratory (1)
A comprehensive study of the musculature of the human body. Analysis of joint movement, muscular involvement, and the application of mechanics, physics, mathematics, and motion analysis in various physical activities. One two-hour laboratory per week. Corequisite: KINE 309.

KINE 320 Methods of Teaching Physical Education in Elementary Schools (3)
Information for classroom and physical education teachers that examines the teaching process, classroom management, and physical education content that is developmentally appropriate for elementary school education.

KINE 333 Community Health (3)
Introduction to the areas of epidemiology, disease prevention and control, environmental health, health care, injury prevention, and safety education.

KINE 335 Sport in Society (3)
The sociology of sport, covering the cultural traditions, social values, and psychosocial experiences of sport from antiquity to today.

KINE 340 Sport Operations (3)
Theoretical background and practical applications designed to provide a framework for the management of resources associated with the planning, implementation and evaluation of festivals and special events.

KINE 342 Sport Law and Risk Management (3)
Legal duties, responsibilities, rights, duties and risk management techniques involved in sport.

KINE 345 Survey of Economics and Finance in Sport (3)
The economic, financial, and managerial accounting concepts for sport. Prerequisite: ECON 201.

KINE 350 Leadership and Ethics in Sport (3)
This course is designed to give individuals an understanding of the various aspects of leadership as well as a survey course of the development and application of moral and ethical values in sport administration settings.

KINE 360 Motor Learning (3)
Foundations of motor learning and the relation of motor performance to other aspects of behavior. Prerequisite: KINE 200.

KINE 365 First Responder (3)
Advanced knowledge and skills required to meet the needs of most emergency situations. Includes monitoring vital signs, CPR for professional rescuer, childbirth, triage, and transport of victims.

KINE 367 Field Experiences in Athletic Training I (2)
Athletic training field experiences. Concentration on Pre-Participation Considerations and Acute Injury Management. Prerequisite: Admission into the Athletic Training Education Program.

KINE 368 Clinical Experiences in Athletic Training I (2)
Athletic training clinical experiences. Concentration on injury care and prevention. Prerequisite: KINE 367 and admission into the Athletic Training Education Program.

KINE 370 Biomechanics (3)
KINE 370L Biomechanics Lab (1)
Exploration of body movements through application of kinematics and kinetics principles. Prerequisites: BIOL 209 and BIOL 209L.

KINE 373 Upper Body Injury Assessment (3)
Evaluation techniques and care of athletic injuries to the head, face and upper extremities. Integration of anatomical structures, physiology principles, and evaluative techniques to provide a basis for critical decision-making in an injury management environment. Prerequisite: KINE 234.

KINE 374 Lower Body Injury Assessment (3)
Evaluation techniques and care of athletic injuries to the trunk and lower extremities. Integration of anatomical structures, physiology principles, and evaluative techniques to provide a basis for critical decision-making in an injury management environment. Prerequisite: KINE 234.

KINE 378 Clinical Experiences in Athletic Training II (2)
Athletic training clinical experiences. Concentration on injury rehabilitation, nutrition, and psychology. Prerequisite: KINE 368.

KINE 395 Independent Study (1-3)

KINE 396 Topics (1-3)

KINE 401 Organization/Administration/ Legal Considerations in Physical Education and Sports (3)
Organizational structures, administrative techniques, and legal considerations in physical education and sports.

KINE 402 Sport Marketing (3)
The application of the principles of promotion and marketing to the sport and fitness industry including the areas of professional sports, corporate fitness, college/high school athletics, clubs and resorts, and others. Prerequisite: MARK 231.

KINE 403 Preparation for Strength and Conditioning Certification (3)
Emphasis on strength and conditioning techniques and program design. Prerequisites: KINE 303 and 303L, or consent of instructor.

KINE 404 Preparation for ACSM Health Fitness Specialist Certification (3)
Emphasis in fitness testing, designing and executing an exercise program, leading exercise, organizing and assisting with operation of fitness facilities. In addition, consultation practices for lifestyle change through multiple intervention strategies will be covered. Prerequisites: KINE 303, 303L.

KINE 405 Sports Nutrition (3)
In-depth study of macronutrient metabolism as it relates to sport. Practical consideration in the use or non-use of carbohydrate supplements, vitamins, and/or other ergogenic aids. Three one-hour lectures per week. Prerequisites: KINE 303, KINE 303L.

KINE 406 Governance and Communication in Sport (3)
The laws and rules governing various sport organizations from interscholastic to professional sport as well as the major means of sport communication.

KINE 408 Methods of Teaching Physical Education in Secondary Schools (3)
Instructional strategies on a practical application level for prospective secondary physical education teachers preparatory to entry into student teaching. Field experiences are required to supplement lectures and discussions. Prerequisites: completion of at least half of all physical education course-work required for certification, and KINE 211.

KINE 410 Rehabilitative Exercises (3)
Review of the theoretical and scientific basis for, and the practical use of, traditional and recently emerging rehabilitative techniques utilized in the rehabilitation of acute, post acute, and chronic musculoskeletal injuries. Prerequisite: KINE 234.

KINE 411 Worksite Health Promotion (3)
Covers worksite health promotion: its description, planning, implementation, marketing, and evaluation. Prerequisite: KINE 401.

KINE 415 Physical Activity and Aging (3)
The study of the dynamic relationship between physical activity and the aging process. Course focuses on the impact of physical activity on the physiological, psychological, and social well-being of older adults. Prerequisites: KINE 303, 303L.

KINE 420 Therapeutic Modalities (3)
Review of the theoretical and scientific basis for, and the practical use of, contemporary therapeutic modalities and techniques utilized in the treatment of acute and chronic musculoskeletal injuries. Prerequisite: KINE 234.

KINE 430 Medical Conditions and Pharmacology in Sports (3)
An overview of the effects on physical activity resulting from the pre-existence of selected medical conditions and the use of pharmacological agents.

KINE 467 Field Experiences in Athletic Training II (2)
Athletic training field experiences. Concentration on Injury Prevention, Acute Injury Management and Health Care Administration. Prerequisite: KINE 378 and admission into the Athletic Training Education Program.

KINE 468 Clinical Experiences in Athletic Training III (2)
Athletic training clinical experiences. Concentration on injury and illness evaluation. Prerequisites: KINE 467.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

KINE 478 Clinical Experiences in Athletic Training IV (2)
Athletic training clinical experiences. Concentrations on administration and professional development. Capstone course for the Athletic Training Education Program. Prerequisite: KINE 468.

KINE 480 Inclusive Physical Activity (3)
Study of physical activities, modifications, and adaptations for individuals with disabilities.

KINE 487 Structured Research (1-3)
A formal research project undertaken with the guidance of a faculty member. The results will be presented as a formal presentation and/or paper. Prerequisite: Senior standing.

KINE 494 Senior Seminar (1)
Opportunity for senior students to contribute and participate in discussion and research of current issues.

KINE 495 Independent Study (1-3)

KINE 496 Topics (1-3)

KINE 497 Pre-Internship in Physical Education (3)
K-12 physical education majors study teaching and standard-based education in a physical education setting. One hundred twenty laboratory hours required. Prerequisite: KINE 320, 408, senior standing.

KINE 499 Internship (3-12)
Work experience obtained on a job where assignments are related to the student's specific concentration area within the Kinesiology degree. Prerequisites: Kinesiology major, senior standing.

KINE 500 Facility and Equipment Management in Sport and Fitness (3)
Provides an in-depth study of the facilities and equipment used in a variety of sport and fitness settings, from public to private organizations, educational settings, athletics (interscholastic, intercollegiate, and professional sports) as well as commercial and corporate fitness centers. The focus is on designing, planning, funding, and maintaining a facility as well as the equipment necessary for its successful operation.

KINE 510 Event and Program Management in Sport and Fitness (3)
Duties and responsibilities of sport and fitness managers in creating policies, conducting events, and developing programs for sport or fitness organizations. Includes extensive examination of the topics and issues involved in the planning, funding, promotion, implementation, and evaluation of events and programs.

KINE 520 Management Policies and Regulations in Sport and Fitness (3)
Study of managerial policies and regulations to specific sport and fitness organizations to include educational , athletic, commercial and corporate entities. Topics will include the following: human resource management; labor relations; policy issues; sponsorship; budgeting; federal, state, and local statues; CHSAA and NCAA rules and guidelines; and professional organization policies. Specific attention will be given to compliance strategies.

KINE 530 Advanced Coaching for Basketball (1)
Examination of the trends, techniques, methods and philosophies in coaching basketball at skilled levels. Specific attention is given to video analysis and game management.

KINE 534 Advanced Athletic Training for Coaches (1)
Specialized procedures and techniques involved in the prevention and management of common athletic injuries.

MACHINE AND MANUFACTURING TRADES (MAMT)

MAMT 101 Introduction to Manufacturing (2)
The course is designed to give the student a broad overview of the world of manufacturing. The course will include people, materials, machines, design, organization, waste, quality, and other subjects which effect society and production of a product.

MAMT 102 Machining Fundamentals (1)
Concentrated unit dealing with speeds and feeds of machines, materials, tooling, tapping, boring, and manufacturing processes.

MAMT 105 Print Reading and Sketching (2)
Reading of blueprints and process sheets as used in industry, application of that information to various manufacturing processes.

MAMT 106 Geometric Tolerancing (1)
Identification, interpretation, and application of the blueprint symbols (referred to as Geometric Tolerancing symbols) in machining and inspection operations. Corequisite: MAMT 105 or consent of instructor.

MAMT 110 Gauging and Measuring Tools (1)
Uses and techniques of inspection including micrometers, Vernier scales, instruments, hole gauges in surface plate work, finish of parts and overall inspection techniques. Prerequisite: MAMT 106 or consent of instructor.

MAMT 115 Introduction to Machine Shop (3)
Safety procedures: using bench tools, layout tools, power saws, and taps; sharpening general purpose drills, grinding lathe bits; and identifying and operating basic machines such as the bench grinder, drill press, band saw, and others. One hour lecture and three hours laboratory per week.

MAMT 120 Machine Technology I (4)
Operation of engine lathes, milling machines and surface grinders. One hour lecture and five hours laboratory per week. Prerequisite: consent of instructor.

MAMT 125 Machine Technology II (4)
Further development of skills acquired in MAMT 120. Emphasis will be placed on technical aspects of tooling and machining tolerances. One hour lecture and five hours laboratory per week.

MAMT 130 Machine Technology III (4)
Advanced machine operations including O.D. grinding, cutter tool grinding, gear cutting, indexing, and rotary table work with emphasis on accuracy, inspection,

and workmanship. One hour lecture and five hours laboratory per week.

MAMT 135 Job Shop Machining I (3)
Production of machined parts from a shop blueprint, writing process sheets, and estimating machine time. Machining of parts may involve one or more machine operations. Machine time, paperwork, inspection, and accuracy will be emphasized. One hour lecture and three hours laboratory per week. Prerequisite: consent of instructor.

MAMT 140 Job Shop Machining II (3)
Further development of writing process sheets, estimating machine time, performing final inspection of finished parts and using all machines in the shop including the numerical control machines. One hour lecture, three hours laboratory per week. Prerequisite: MAMT 130 or consent.

MAMT 145 Machine Maintenance (2)
Maintaining, lubricating, and repairing machinery including making gib adjustments, selecting and using proper lubricants and selecting or manufacturing parts of making repairs with emphasis on workmanship and inspection. One hour lecture, one and one-half hours laboratory per week. Prerequisite: consent of instructor.

MAMT 148 CNC Applications (3)
Introduction to Computer Numerical Control programming basics, CAM software and tooling used in today's manufacturing CNC Milling machines and CNC lathes.

MAMT 150 Introduction to Numerical Control (1)
Numerical control/computerized numerical control machining, its advantages and how it operates. The course is designed as an informational unit for customized pre-employment training.

MAMT 151 Numerical Control Machining I (3)
Computerized and numerical control machining operations, including control of functions, programming format, machine setup, and operation. Two hours lecture and three hours laboratory per week. Prerequisite: consent of instructor.

MAMT 155 Numerical Control Machining II (3)
Further development of concepts introduced in MAMT 151 with emphasis on setup and operation of N.C./C.N.C. machines. Two hours lecture and three hours laboratory per week. Prerequisite: consent of instructor.

MAMT 160 Properties of Materials (2)
Descriptions of smelting and refining various types of metals. Discussions and demonstrations on various methods of heat treating, hardness testing, and cutting chip theory. One one-hour lecture and one one-and-one-half hour laboratory per week.

MAMT 170 Practical Applications (3)
Students will gain a working knowledge in manufacturing through Co-op, internship, work experience or required lab work in industrial study if outside work cannot be acquired. Prerequisite: Instructor permission.

MAMT 196 Topics (1-3)

MAMT 207 Introduction to Statistical Process Control (2)
Introduction to the philosophical and economic bases for statistical process control and its use; mathematical and nonmathematical SPC techniques with emphasis on application.

MAMT 250 Process Systems Technology (2)
Advanced concepts of the philosophical and economic bases for statistical process control and its uses; mathematical and non-mathematical SPC techniques with emphasis of application.

MAMT 250L Process Systems Technology Laboratory (2)
Advanced concepts of the philosophical and economic bases for statistical process control and its uses; mathematical and non-mathematical SPC techniques with emphasis of application.

MAMT 295 Independent Study (1-3)

MAMT 296 Topics (1-3)

MANAGEMENT (MANG)

MANG 121 Human Relations In Business (3)
Human side of organizations: morale, motivation, human needs, minorities as working partners, leadership styles, organizational environment, and other human forces having an impact on business structures.

MANG 201 Principles of Management (3)
Management as the process of achieving organizational goals or objectives by and through others. Emphasizes functions performed by managers and how they are influenced by forces both within and outside the organization. Managers' use of resources will be investigated.

MANG 201A Principles of Management : Part 1 of 3 (1)
Introduction to the activities of management and decision making in the global environment, with an emphasis on leadership and managing change and innovation.

MANG 201B Principles of Management: Part 2 of 3 (1)
Introduction to management planning, goal setting, organizing, human resources, teams, and organizational behavior.

MANG 201C Principles of Management: Part 3 of 3 (1)
Introduction to management control, quality, the role of information technology, and electronic business.

MANG 221 Supervisory Concepts and Practices (3)
For practicing or potential supervisors and managers who hold or will hold first-line to middle-level management positions. Focuses on the management functions of planning, organizing, staffing, directing, and controlling and their relation to the daily job of the supervisor.

MANG 299 Internship (3-6)
Practical workplace experience under the joint supervision of the employer and the internship coordinator. Designed for business majors working in the business environment. Prerequisites: ACCT 201, BUGB 101, BUGB 211, and CISB 101.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

MANG 300 Small Business Management (3)
Aspects of management uniquely important to small business firms; the economic and social environment in which they function. Prerequisite: MANG 201 or consent of instructor.

MANG 301 Organizational Behavior (3)
Human behavior, its causes and effects in organizational settings. Description of and development of an understanding of human behavior in such settings. Prerequisite: MANG 201 or consent of instructor.

MANG 341 Quantitative Decision Making (3)
Application of inferential statistics to realistic business situations; use of quantitative tools to enhance business decision-making ability. Descriptive statistics for data summarization, probability theory, distributions, estimation, and index numbers with emphasis on hypothesis testing, analysis of variance, regression/correlation, time series, and introduction to operations research and linear programming. Prerequisites: MATH 113 or higher, and STAT 200.

MANG 343 Evaluating Entrepreneur Opportunities (3)
Introduction to Entrepreneurship including development of business ideas, business model creation and business feasibility analysis. Prerequisite: BUGB 340.

MANG 371 Human Resource Management (3)
Principles and applications of basic human resource management (HRM). Survey of the HRM functions in organizations. Topics include staffing, training and development, compensation, safety and health, employee and labor relations, and employee performance management. Prerequisites: MANG 201, junior or senior standing, or consent of instructor.

MANG 372 Employment Assessment (3)
Knowledge and skills necessary to effectively analyze and forecast organizational staffing requirements, assess, recruit and select candidates, and effectively retain employees in today's complex organizations. Legal aspects of staffing process emphasized. Prerequisite: MANG 371.

MANG 373 Human Resource Management, Leadership, Ethics, and Social Responsibility (3)
Review of literature related to Human Resource Management (HRM) and leadership, ethics, and corporate social responsibility. Review articles and books related to the responsibility of HRM leaders and their significant influence on organizational practices, leadership, ethical behavior and corporate social responsibility. Prerequisite: MANG 371 or consent of instructor.

MANG 395 Independent Study (1-3)

MANG 396 Topics (1-3)

MANG 401 Small Business Consulting (3)
Students are placed in the role of consultant for an area business furnishing management assistance to the small business community. Businesses benefit from the insight of student recommendations. Provides students practical training, supplementing academic theory by handling problems in a real business environment. Prerequisite: Consent of instructor.

MANG 402 Advanced Problems in Small Business Operations II (6)
Continuation of MANG 401. Prerequisites: MANG 302 and/or consent of instructor. (Not necessary to complete MANG 401 before 402.)

MANG 410 Effective Workplace Communication (3)
Application of communication methods including: personal selling, negotiation, interviewing, and individual and group presentations. Emphasis placed upon application of effective practices used in communicating in today's business world. Prerequisites: Junior/Senior standing, or permission of the instructor.

MANG 421 Credit and Collection Management (3)
Consumer and commercial credit in relationship to the management of credit by business firms, legal aspects of credit extension and current legislation. Information on credit operations of business for both students of business and practicing businessmen. Prerequisites: ACCT 202, MANG 201 or consent of instructor.

MANG 450 Entrepreneurship (3)
Analysis of managerial problems of small business, preparing a business plan, case studies, and individual reports of local small business enterprises. Understanding of elementary accounting, finance, and business law required. Prerequisites: ACCT 201, MANG 201, MARK 231, FINA 301, and students choose either MARK 350, MANG 341, or CISB 341, or consent of instructor.

MANG 451 Career Research and Development (3)
Principles and techniques involved in a job search with emphasis on conducting career research, identification of goals, preparing a job campaign, and elements of a job interview. Preparation of a job kit including a prospect list, resume, cover letter, advertisements, prospect letters, and sales and follow-up letters which can be used in a job search. Prerequisite: senior standing or consent of instructor.

MANG 471 Operations Management (3)
The use of resources in producing goods and services; concepts of planning, scheduling, and controlling productive activities and physical resources. Prerequisites: FINA 301, Senior standing.

MANG 475 Compensation and Reward Systems (3)
Designing strategic compensation systems. Seniority, merit, incentive pay, person-focused pay. Job evaluation, internal and external equity. Benefits administration. International, executive, and flexible workforce compensation systems. Diversity and ethical considerations. Prerequisites: MANG 371, and MANG 372 (may be taken concurrently with instructor's permission).

MANG 478 Advanced Human Resource Management (3)
Capstone course for HRM concentration. Expanded examinations of human resource topics such as performance appraisal, sexual harassment, religion and spirituality in the workplace, compensation, and labor relations. Reviews current topics in HRM providing

a practical application of topics covered in other HRM courses as well as current issues. Prerequisites: MANG 371, MANG 371, MANG 373, MANG 475 and senior status.

MANG 491 Business Strategy (3)
Duties and responsibilities of decision makers in analyzing the organization, its operating environment and the subsequent development of objectives, policies, and long term planning for organizations. Includes complex cases taken from actual experiences in situations involving analysis, planning, and decision making. Required of all BBA and BS Accounting students. To be taken last semester of program. Prerequisites: ACCT 201, ACCT 202, BUGB 105, BUGB 349, CISB 101, FINA 301, MANG 201, MARK 231, or permission of the instructor.

MANG 495 Independent Study (1-3)

MANG 496 Topics (1-3)

MANG 499 Internship (3-9)
Provides BBA students with an opportunity to learn more about management functions and activities through exposure to an actual business or agency environment. Observation and participation in management activities enable students to relate classroom theory to on-the-job experiences. Prerequisites: BBA major, second semester junior or senior, written consent of instructor prior to registration.

MANG 500 Advanced Management Theory (3)
Designed to advance the student's understanding of management theories and the application of these theories to the business world. Contemporary issues will be discussed.

MANG 501 Production and Operations Management (3)
Competitive strategies and strategic impact of the transformation process in a global economy. Operations management issues including quality, inventory management, management of technology, manufacturing planning and control, just-in-time manufacturing and optimized production technology. Impact of business system on productivity and profits.

MANG 510 Organizational Theory and Behavior (3)
Designed to encourage the application of diverse conceptual and theoretical perspectives to the analysis and control of behavior in organizations. Practice in diagnosing organizational problems is gained by combining the use of theories, texts, readings, cases and exercise. The course focuses on problems related to perception, motivation, leadership, cultural diversity, interpersonal and group conflict, stress, work-family conflict, influence, decision-making, ethics, international management issues and change.

MANG 520 Human Resource Management (3)
Provides an in-depth study of the effective use and adaptation to the human resources of an organization through the management of people-related activities. The focus is on the core responsibilities and activities of the HR manager. Also included is a detailed review of current statutes and regulations affecting the HR field.

MANG 540 Advanced Quantitative Methods (3)
Analytical models to support decision making. Topics include linear optimization, sensitivity analysis, linear regression, decision making under uncertainty, decision making under risk, project management, transportation and assignment methods, and forecasting.

MANG 550 Entrepreneurship (3)
Takes the student through activities that an entrepreneur would encounter in the small business start-up process. Topics will center around marketing, managerial, legal, financial and informational needs of the new venture. The use of cases, real life projects and Internet resources will be used extensively during the course.

MANG 590 Business Strategy (3)
The capstone course in the MBA program. The purpose of this course is to develop an understanding of strategic management and the "how" and "why" of strategic decisions. Emphasis is also placed on how the manager goes about translating strategy into action and achieves integration in the organization. Integration involves the functional areas of management and how to balance the trade-offs from the perspective of strategic decision making at the top management level.

MARKETING (MARK)

MARK 231 Principles of Marketing (3)
Use and development of marketing strategy and the effects of buyer motivation. Major functions of marketing, buying, selling, distribution, pricing, advertising, and storage are studied. A contrast is made between the two marketing institutions: wholesaling and retailing.

MARK 325 Consumer Behavior (3)
Overview of the processes involved when individuals or groups select, purchase, use or dispose of products and services to satisfy needs and desires. Prerequisite: MARK 231.

MARK 332 Promotion (3)
Overview of the many ways in which goods, services, and ideas can be promoted to consumers and businesses through advertising, public relations, and publicity. Prerequisite: MARK 231.

MARK 335 Sales and Sales Management (3)
The salesperson as a counselor whose role is to help buyers make better decisions. Professional salesmanship is recognized as an integral function in modern society, with basic sales techniques studies and practiced in sales presentations. The course is taught from a management perspective. Prerequisite: MARK 231.

MARK 340 Creating Marketing Materials (3)
Overview and process development for creating marketing materials for all supply chain stakeholders. Development and analysis of multi-faceted levels of business marketing. Prerequisites: MARK 231, MARK 332, and MARK 325.

MARK 350 Marketing Research (3)
Marketing research theory and techniques designed to educate the student in the use of the scientific method, develop analytical ability, present basic marketing research tools,

and develop proficiency in the art of writing research reports. Cases and actual research projects will be utilized. Prerequisites: STAT 200 and MARK 231.

MARK 360 Services Marketing (3)
Application of marketing concepts and strategies for addressing marketing problems and opportunities in the service sector (Finance, Hospitality, and Healthcare). Prerequisite: MARK 231, MARK 350 or permission of the instructor. Course will utilize case problems and an actual research project.

MARK 395 Independent Study (1-3)

MARK 396 Topics (1-3)

MARK 402 Sport Marketing (3)
The application of the principles of promotion and marketing to the sport and fitness industry including the areas of professional sports, corporate fitness, college/high school athletics, clubs and resorts, and others. Prerequisite: MARK 231.

MARK 432 Advanced Marketing (3)
In-depth complex marketing problems confronting modern business. Development of marketing strategy to allow the firm to progress toward its corporate objectives. Prerequisites: MARK 231, 350.

MARK 495 Independent Study (1-3)

MARK 496 Topics (1-3)

MARK 500 Marketing Strategy (3)
Examines the state-of-the-art in marketing strategy from both a practical and theoretical perspective. Focusing on integrating a broad range of marketing concepts, the emphasis is on setting realistic marketing objectives, understanding marketing research concepts, demographic market segmentation, and current marketing topics.

MASS COMMUNICATION (MASS)

✓ **MASS 110 Mass Media: Impact and History-GTAH2 (3)**
Role played by media in everyday life and media's social, economic, and historical influence on society.

MASS 140 Media Theory Introduction (3)
Introduction to theories of Mass Communication. Exploration of theory constructs, audience research, effects of emerging media and technologies, and message content. Prerequisite: MASS 110 or consent of instructor.

MASS 142 Media Software Application (3)
Orientation and experience in using software specifically employed in media message creation. Addresses technology used in the Mass Communication program at MSC. Prerequisites: MASS 110 or consent of instructor.

MASS 144 Multimedia Storytelling (3)
Journalism-based techniques and methods for modern storytelling of accurately written information through the use of the internet, video, and audio. Focus on storytelling that can be posted quickly through the use of flip cameras and inexpensive editing software. Prerequisites: MASS 110 or consent of instructor.

MASS 196 Topics (1-3)

MASS 213 Introduction to Media Writing (3)
Fundamentals of news gathering and reporting through a variety of media. Exploration of ethical and legal aspects of journalistic endeavors. Submitted stories may be published. Prerequisites: MASS 140, MASS 142, and MASS 144, or consent of instructor.

MASS 251 Mass Media: Advertising and Promotions (3)
Principles of media advertising and promotions. Considers research, analysis, strategy, advertising barriers, design, and perspective. Production for media. Prerequisites: MASS 140, MASS 142, and MASS 144, or consent of instructor.

MASS 261 Audio Announcing and Production (4)
Exploration of the art and science of announcing for media and the importance and use of the spoken word in persuasive messages. Creation and execution of programs and formats for audio source distribution both traditional and emerging. Prerequisites: MASS 140, MASS 142, and MASS 144, or consent of instructor.

MASS 271 Video Production I (3)
Fundamentals of in-studio production with hands-on experience with broadcast-quality cameras, video switchers, and audio equipment. Creation and execution of productions requires editing, scripting, and talent/crew management. Prerequisites: MASS 140, MASS 142, and MASS 144, or consent of instructor.

MASS 296 Topics (1-3)

MASS 297 Practicum (1)
Practical experience with student media outlets under faculty advisor supervision or with CMU Sports Information. Practicum coordinator must be consulted in first week of term. Prerequisite: consent of instructor.

MASS 310 Media Law and Ethics (3)
Ethical principles and laws affecting media. Includes study and application of ethics and laws involved in print, broadcasting, and emerging media. Freedom of Press, Fair Trial, Privacy, Right to Know, Freedom of Information, Fairness Doctrine, Cameras in Courtroom, Obscenity, Censorship, and Sunshine Laws considered. Prerequisite: MASS 213 or consent of instructor.

MASS 313 Broadcast Journalism Reporting (3)
Introduction to broadcast writing styles and history. Specific applications for radio, television, and internet. Emphasis on format, newsgathering, interviewing, research, and the creation of a portfolio of writing samples. Prerequisite: MASS 213 or consent of instructor.

MASS 315 Specialized Writing for Media (3)
Specific content changes by term. Concentrates on specialty writing about sports, features/magazines, science/health/medicine, religion, business, and entertainment. Examines basic history of specialty topic writing. Legal and ethical issues emphasized. Prerequisite: MASS 213 or consent of instructor.

MASS 317 Writing Opinion for Impact (3)
Persuasive and insightful writing. Subjects include public issues, supporting beliefs, analysis, and documentation for targeted audiences through broadcast, print, and

internet/web. Practical applications in researching, interviewing, and writing editorials and commentaries. Prerequisite: MASS 213 or consent of instructor.

MASS 319 Commercial Copy (3)
Creation of copy. Conceive and bring to fruition writing exercises, create copy for traditional outlets and interactive social outlets, understand the motivations and appeals found in copy, and provide the opportunities to be creative on demand. Prerequisite: MASS 213 or consent of instructor.

MASS 342 Photojournalism I (3)
Fundamentals of camera techniques, qualities of print and digital images, history and ethics of photojournalism, uses of software in image acquisition and use, and development of esthetic values. Prerequisite: MASS 213 or consent of instructor.

MASS 343 Social Media (3)
Provides hands-on experience with social media as they relate to specific disciplines within and beyond Mass Communication. Exploration of social media history and current trends. Production of blogs, podcasts, and videos required. Prerequisite: MASS 213 or consent of instructor.

MASS 350 Public Relations Concepts (3)
Historical and theoretical approach to contemporary public relations with emphasis on the persuasion process and ethics, propaganda, and advertising techniques in the mass media. Prerequisite: MASS 213 or consent of instructor.

MASS 352 Design and Editing for Print (3)
Examinations and evaluations of articles, copy editing, writing headlines and titles, page design for newspapers, magazines, brochures, and the duties of a publication editor. Prerequisite: MASS 213 or consent of instructor.

MASS 372 Video Production II (3)
Combination of in-studio and field-shot productions via production team approach. Includes script writing, location management, location scheduling, time management in field and editing culminating in broadcast-quality programming. Prerequisites: MASS 213 and MASS 271 or consent of instructor.

MASS 395 Independent Study (1-3)

MASS 396 Topics (1-3)

MASS 397 Practicum (1)
Practical experience with student media outlets under faculty advisor supervision or with MSC Sports Information. Practicum coordinator must be consulted in first week of term. Prerequisites: MASS 140, MASS 142, and MASS 144 or consent of instructor.

MASS 415 Public Affairs Reporting (3)
Definition of Public Affairs and the importance to society. Development of abilities to interview, research public records, report facts fairly, and to write under deadline pressures. Critical attention paid to law and ethics. Prerequisite: MASS 213 or consent of instructor.

MASS 417 Writing for Public Relations and Advertising (3)
Emphasizes copywriting function in public relations and advertising for organizations and agencies. Prerequisite: MASS 213 or consent of instructor.

MASS 441 Emerging Media (3)
Experimentation via tools, techniques, and concepts of social and new media resulting in the creation of an online newspaper. Prerequisite: MASS 213 or consent of instructor.

MASS 442 Photojournalism II (3)
Considers advanced skills necessary to capture and edit images to high esthetic values, professionalism, news photography, photo illustration, creation of image portfolios for public display or potential employers, and use of image management software. Prerequisite: MASS 342 or consent of instructor.

MASS 450 Public Relations Campaigns (3)
Campaigns and case histories presenting the scope of PR, research methodology, and audience targeting. Practical application of PR theory. Prerequisite: MASS 350 or consent of instructor.

MASS 452 Desktop Publishing (3)
Publishing attractive and effective communication via software used by media professionals. Includes designing print materials such as company newsletters, logos, brochures, magazines, as well as electronic publishing. Prerequisite: MASS 352 or consent of instructor.

MASS 471 Video Production III (3)
Emphasis on esthetic values and financial costs of commercial productions. Builds upon concepts and skills acquired in MASS 271 and MASS 372 to create and execute video commercials for air and/or web use. Client relations an integral part of experience. Prerequisite: MASS 372 or consent of instructor.

MASS 494 Seminar, Theory and Research (4)
Capstone course. Examination and exploration of mass communication theories in light of history and development of media messages and the channels through which they travel. Focus on research and its importance to media disciplines and industries. Prerequisite: MASS 213 or consent of instructor.

MASS 495 Independent Study (1-3)

MASS 496 Topics (1-3)

MASS 497 Practicum (1)
Practical experience with student media outlets under faculty advisor supervision or with CMU Sports Information. Practicum coordinator must be consulted in first week of term. Prerequisite: MASS 397 or consent of instructor.

MASS 498 Senior Project Portfolio (1)
Identification and preparation of off-campus projects that highlight Mass Communication skills, abilities, talents, and applications. Supervision and guidance provided by a faculty member. Works created will be formally presented to a review board. Prerequisites: MASS 213 and MASS 397 or consent of instructor.

MASS 499 Internship (5-12)
Work in newspapers, radio, television, advertising or public relations positions, or other situations that meet instructor's

approval. Prerequisite: At least junior standing with at least half of major requirements completed; MASS 213, MASS 310.

MATHEMATICS (MATH)

MATH 030 Fundamentals of Mathematics (3)
Includes the vocabulary, operations and applications of whole numbers, decimals and basic fractions and mixed numbers. Prerequisite: Accuplacer score below 57 AR.

MATH 060 Pre-Algebra (3)
Furthers the study of fractions and mixed numbers. Also included are vocabulary, operations and applications of ratio, integers, and an introduction to algebraic expressions and the solution of basic first-degree equations. Prerequisites: MATH 030; or Arithmetic test score must be greater than 56 and Arithmetic test should be considered only when Elementary Algebra score is less than 45.

MATH 090 Introductory Algebra (3)
Introduction to algebra with a review of basic arithmetic. Includes decimals, fraction, percentage, ratio, proportion, signed numbers, algebraic expressions, factoring, exponents and radicals, linear equations, functions and graphs. Prerequisite: MATH 060 or Accuplacer score EA from 45 to 60.

MATH 091 Intermediate Algebra (3)
Further study in topics of algebra. Includes properties of real and complex numbers; laws of exponents and radicals; factoring polynomials; solving linear and quadratic equations and inequalities; rational expressions and complex fractions; introduction to functions and relations; applications. Prerequisites: MATH 090 or equivalent, or appropriate mathematics placement test score.

MATH 105 Elements of Mathematics I (3)
Mathematics for the prospective elementary teacher with an emphasis on understanding mathematical reasoning and processes. Topics include problem solving, set theory, number theory, numeration systems, the integers and rational numbers. Prerequisites: Appropriate mathematics placement test score and interview, and consent of instructor.

MATH 108 Technical Mathematics (4)
Covers material designed for career technical or general studies students who need to study particular mathematical topics. Topics may include measurement, algebra, geometry, trigonometry, graphs, and/or finance. These are presented on an introductory level and the emphasis is on applications. Prerequisite: MATH 060.

✓ **MATH 110 College Mathematics-GTMA1 (3)**
Essential mathematical concepts for B.A. students. Topics include logic, set theory, solving equations, basic inequalities, combinatorics, probability, descriptive statistics, geometry, consumer mathematics and the appropriate use of calculators. Prerequisites: two years of high school math at the algebra level or higher, or MATH 091 or equivalent or appropriate mathematics placement test score.

✓ **MATH 113 College Algebra-GTMA1 (4)**
A college-level treatment of algebra. Topics include algebraic properties of the integers, rationals, real and complex numbers; techniques for manipulation of expressions; techniques for solving linear, non-linear, absolute value equations, and inequalities; techniques for solving systems of equations; the Cartesian plane, relations and functions; properties and graphs of polynomial, rational, exponential, logarithmic and inverse functions; conic sections. Prerequisite: MATH 091 or equivalent, or appropriate mathematics placement test score.

✓ **MATH 119 Precalculus Mathematics-GTMA1 (5)**
An in-depth treatment of the mathematics essential to Calculus. Topics include the Cartesian plane, functions; polynomial, rational, exponential, logarithmic, inverse, circular and trigonometric functions; solving inequalities and systems of equations Additional topics may include matrices, determinants and vectors. Prerequisite: MATH 113 or equivalent, or appropriate mathematics placement test score.

MATH 121 Calculus for Business (3)
An introduction to calculus with an emphasis on applications to business and economics. Topics include linear and quadratic functions, limits, continuity, differentiation, integration, the logarithmic and exponential functions, and applications. Computer algebra systems will be used where applicable. Current college algebra skills and graphic calculator are required. Prerequisite: MATH 113 or equivalent, or appropriate mathematics placement test score.

MATH 127 Mathematics of Finance (3)
Simple interest, simple discount, compound interest, continuously compounded interest, annuities, perpetuities, capitalization, determining payment size, determining outstanding principal, and constructing amortization schedules, including the derivation of mathematical formulae and the methods for solving many financial problems. Prerequisites: MATH 113 or consent of instructor.

MATH 130 Trigonometry (3)
A college-level treatment of trigonometry. Topics include the Cartesian plane, functions, inverse functions, the circular function, trigonometric functions, graphs of trigonometric functions, trigonometric identities, solving trigonometric equations, inverse trigonometric functions, triangle solution techniques and vectors. Prerequisite: MATH 113 or equivalent, or appropriate mathematics placement test score.

MATH 141 Analytical Geometry (3)
A college-level treatment of analytic geometry. Topics include Cartesian coordinate systems, distance, parallel and perpendicular lines and planes, the locus of a condition, generalizations of lines, planes and parabolas, polar coordinates and vectors in two and three dimensions. Prerequisites: MATH 130 or consent of instructor.

MATH 146 Calculus for Biological Sciences (5)
An introduction to calculus with an emphasis on applications to biology. Topics include functions, properties and graphs of polynomials, rational functions, the trigonometric, inverse,

exponential and logarithmic functions, limits, continuity, differentiation, related rates, min-max problems, integration and applications of biology. Prerequisite: MATH 113 or consent of instructor.

MATH 147 Introduction to Computer Algebra Systems (1)
Introduction to computer algebra using an appropriate computer algebra system (CAS) such as Maple, Mathematica, Derive, etc. Topics will include the syntax and simple programming of the CAS used. Assignments and projects will emphasize applications in Calculus. Prerequisite: MATH 119. Corequisite: MATH 151.

✓ **MATH 149 Honors Mathematics-GTMA1 (3)**
An in-depth exploration of mathematical concepts, with an emphasis on the process of mathematical discovery. Topics are left to the discretion of the instructor, and typically include an introduction to more advanced topics such as group theory or graph theory. This course fulfills the general education requirement for students in the Honors Program. Prerequisite: Permission to enroll is required.

✓ **MATH 151 Calculus I-GT-MA1 (5)**
An introduction to differentiation and integration of functions of a single variable. Topics include functions, limits, continuity, differentiation, related rates, min-max problems, graphing, integration and applications. Prerequisite: MATH 119, or appropriate mathematics placement test score.

MATH 152 Calculus II (5)
A continuation of MATH 151 Calculus I. Topics include techniques of integration, trigonometric and hyperbolic functions, inverse, logarithmic and exponential functions, sequences, series, conic sections, polar coordinates and parametric equations. Prerequisite: MATH 151.

MATH 196 Topics (1-3)

✓ **MATH 205 Elements of Mathematics II-GT-MA1 (3)**
Decimal numbers, probability, statistics, geometry, and the metric system. A continuation of MATH 105 designed for the prospective elementary teacher. Prerequisite: MATH 105 or consent of instructor.

MATH 225 Computational Linear Algebra (3)
A computational approach to matrices, determinates, systems of equations, vector spaces, linear transformations, eigenvectors and eigenvalues, as well as their applications. Computational methods will be used to explore and investigate the traditional subjects of linear algebra. Prerequisite: MATH 253.

MATH 236 Differential Equations and Linear Algebra (4)
Introduction to ordinary differential equations and linear algebra. Topics covered include ordinary differential equations, systems of linear equations, matrices, determinants, vector spaces, linear transformations, and systems of linear differential equations. Prerequisite: MATH 152.

MATH 240 Introduction to Advanced Mathematics (4)
An introduction to writing mathematical proofs. This course is designed to provide students with a transition from computationally-based lower level classes to proof-based upper level classes. The primary goal of the course is to train students to construct and analyze rigorous mathematical proofs. Topics include introductory logic, set theory, relations, functions, induction, equivalence relations, partitions and combinatorics. Prerequisites: MATH 152.

MATH 253 Calculus III (4)
Vectors in three-dimensional space, vector functions, partial derivatives, directional derivative and multiple integrals. Prerequisite: MATH 152.

MATH 260 Differential Equations (3)
Techniques of solving differential equations of order one, linear differential equations, linear equations with constant coefficients, non-homogeneous equations, variation of parameter techniques, and Laplace transform methods. Prerequisite: MATH 152.

MATH 296 Topics (1-3)

MATH 301 Mathematics for Elementary Teachers (3)
A selection of mathematics topics addressing content and standards for elementary education. Strong emphasis on written and oral communication. Prerequisite: MATH 205 and formal acceptance into the Teacher Education Program, or consent of instructor.

MATH 305 Euclidean Geometry (3)
Development of Euclidean Geometry. Topics include basic concepts of logic, axiomatic proofs, inductive reasoning, analytic geometry, applications of technology, and van Hiele levels of learning. Intended for students seeking elementary teacher licensure. Prerequisites: MATH 301, and MATH 151 or MATH 146.

MATH 310 Number Theory (3)
Classical number theory including the fundamental theorem of arithmetic, congruences, and linear diophantine equations. Prerequisite: MATH 240.

MATH 325 Linear Algebra I (3)
Matrices, solving systems of equations, determinants, vectors, vector spaces, linear transformations and eigenvalues. Prerequisite: MATH 240 or MATH 369 or consent of instructor.

MATH 340 Ethnomathematics (3)
Study of mathematics within cultures, especially small-scale indigenous cultures. Through the lens of culture, students can compare/contrast mathematics systems, their logical structures, and their modes of expression. Prerequisite: MATH 240 or MATH 301 or permission of instructor.

MATH 352 Advanced Calculus (3)
A rigorous and thorough treatment of differential and integral Calculus of one real variable. Topics include construction of the real numbers, limits, continuity, derivatives, integration, and series. Prerequisite: MATH 240.

MATH 360 Methods of Applied Mathematics (3)
Selection of techniques in applied mathematics of particular use to scientists and engineers. Topics include vector analysis, partial differential equations and transform techniques.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

Applications are stressed. Prerequisite: MATH 253, and MATH 236 or MATH 260.

MATH 361 Numerical Analysis (4)
Elementary numerical analysis using the hand-held programmable calculator including Taylor's theorem, truncating errors, iteration processes, least squares methods, numerical solution of algebraic and transcendental equations, systems of equations, ordinary and partial differential equations, integral equations, interpolation, finite differences, eigenvalue problems, relaxation techniques, approximations, and error analysis. Prerequisites: MATH 152.

MATH 362 Fourier Analysis (3)
Introduction to continuous and discrete Fourier analysis. Topics include signals as vectors, matrices, and functions; orthogonality and correlation; expansions and transforms; Fourier series and frequency analysis; filtering, thresholding and compression; analysis of accuracy, including aliasing and convergence; Fourier and inverse Fourier transforms; discrete and inverse discrete Fourier transforms. Prerequisite: MATH 152.

MATH 365 Mathematical Modeling (3)
A bridge between calculus and the application of mathematics. Investigation of meaningful and practical problems chosen from experiences, encompassing the disciplines of mathematical sciences, operations research, engineering, management sciences and life sciences. Prerequisites: STAT 200, MATH 152, and one of the following: MATH 236, 240, 253, 260, 325, or consent of instructor.

MATH 369 Discrete Structures I (3)
Elementary logic, induction, recursion, recurrence relations, sets, combinatorics, relations, functions, graphs, trees, and elementary abstract structures. Prerequisites: MATH 152, CSCI 111.

MATH 370 Discrete Structures II (3)
Applications of logic, Boolean algebra and computer logic, abstract structures, coding theory, finite-state machines, and computability. Prerequisites: MATH 369 or both MATH 240 and CSCI 111.

MATH 380 History of Mathematics (3)
History of mathematics from antiquity to the present with emphasis upon the development of mathematics concepts and the people involved. Prerequisite: MATH 152.

MATH 386 Geometries (4)
A study of Euclidean and non-Euclidean geometries. This course examines the differences in their axiom systems and their models, and how notions in Euclidean geometry are interpreted in non-Euclidean systems. Prerequisite: MATH 240.

MATH 394 Mathematics Colloquium (1)
A weekly series of talks on a wide range of contemporary mathematics will be given by local faculty and others. Students must provide written commentary on these talks. Prerequisite: Permission to enroll is required.

MATH 395 Independent Study (1-3)

MATH 396 Topics (1-3)

MATH 397 Structured Research (1-4)
Mathematical research under the direct guidance of a faculty member. Designed for junior and senior level students. May be repeated for up to 12 credit hours. Prerequisite: Permission of instructor.

MATH 420 Introduction to Topology (3)
Important as preparation for graduate work in many areas of mathematics and theoretical physics. Introduction to general topology, topics normally covered include: metric spaces, connectedness, compactness, the separation axioms and the Tychonoff theorem. Intended for mathematically mature students. Prerequisite: MATH 325 or consent of instructor.

MATH 425 Computational Abstract Algebra (3)
Introduction to abstract algebra, typically groups and rings, from a computational perspective. Computation will be used to help explore and verify the properties of some algebraic structures. Prerequisites: MATH 253, MATH 225 or 325.

MATH 430 Mathematical Logic (3)
Introduction to the classical areas of mathematical logic (model theory, proof theory, the theory of computation, complexity theory and set theory), the relationships these sub-disciplines have with each other and their relationships to the foundations of mathematics, computational science, computer science and the philosophy of mathematics. Prerequisite: MATH 240 or 369.

MATH 450 Complex Variables (3)
Algebra of complex numbers, analyticity, differentiation and integration of complex functions, Cauchy's integral formulae, and series. Prerequisite: MATH 240.

MATH 452 Intro to Real Analysis I (3)
An in-depth and rigorous treatment of the theory of calculus, with an introduction to real analysis. Topics for MATH 452 and MATH 453 include number systems, cardinality, point set topology; open and closed sets, metric spaces, completeness, compactness and connected sets; sequences, series, limits, continuity, differentiation, integration, sequences and series of functions, and Euclidean spaces. Prerequisites: MATH 240, 253, and a grade of C or better in one of the following: MATH 310, MATH 325, or MATH 352.

MATH 453 Intro to Real Analysis II (3)
A continuation of MATH 452. Topics include number systems, cardinality, point set topology; open and closed sets, metric spaces, completeness, compactness and connected sets; sequences, series, limits, continuity, differentiation, integration; sequences and series of functions, and Euclidean spaces. Prerequisite: MATH 452.

MATH 460 Linear Algebra II (3)
Characteristics and minimal polynomial, Cayley-Hamilton Theorem, invariant subspaces, bilinear forms, primary decomposition theorem, dual vector spaces. Prerequisite: MATH 325.

MATH 484 Senior Seminar I (2)
An introduction to conducting mathematical research with discussion of various research topics, including how to read and analyze articles in mathematics. Presentations and papers will be required. Prerequisite: consent of instructor.

MATH 490 Abstract Algebra I (3)
An introduction to the theory of algebraic structures. Topics include groups, subgroups, cyclic groups, groups of permutations, homomorphisms,

isomorphisms, the order of group elements, cosets, quotient structures, isomorphism theorems and an introduction to rings and fields. Prerequisite: MATH 240, and a grade of C or better in one of the following: MATH 310, MATH 325, or MATH 352.

MATH 491 Abstract Algebra II (3)
A continuation of MATH 490 Abstract Algebra I. Topics include properties of rings, subrings, ideals, quotient structures; ring homomorphisms and isomorphisms, integral domains, polynomial rings, properties of fields, subfields, field extensions, finite fields and Galois Theory. Prerequisites: MATH 490.

MATH 494 Senior Seminar II (2)
Capstone course, with discussion of specialized topics and analysis of mathematical results, requiring students to interpret and present research. Subject matter will vary. Presentations and/or written research papers will be required. Prerequisite: Consent of instructor.

MATH 495 Independent Study (1-3)

MATH 496 Topics (1-3)

MATH 596 Topics (1-3)

MEDICAL OFFICE ASSISTANT (MOAP)

MOAP 111 Introduction to Medical Assisting (3)
Description and career opportunities. Professionalism and effective communication. Overview of health care, types of organizations and health care team. Legal considerations in the medical office, patient rights and the Health Information Portability and Accountability Act (HIPAA), and principles of law and ethics in health care.

MOAP 133 Basic Medical Sciences I (4)
Organization and function of the human body. Introductory anatomy, physiology, and pathophysiology of integumentary, musculoskeletal, cardiovascular, blood, lymphatic and immune, and respiratory. Health problems, illnesses, diagnostic tests, drug therapy and treatment common in the ambulatory patient care setting.

MOAP 135 Basic Medical Sciences II (4)
Organization and function of urinary, male and female reproductive systems, musculoskeletal, and eyes, ears, nose and throat. Implications in pediatrics, geriatrics and nutrition are reviewed. Health problems, illnesses, diagnostic tests, drug therapy and treatment common in the ambulatory patient care setting.

MOAP 136 Introduction to Clinical Skills (2)
Principles and procedures. Collection of patient history and data, vital signs, height, weight, and appropriate documentation. Methods of assisting clinicians with physical examinations, procedures, and treatments in the medical office. Infection control and medical asepsis. Prerequisite: MOAP 111.

MOAP 138 Medical Assisting Laboratory Skills (4)
Laboratory skills and techniques for collection, handling, examination and testing of laboratory specimens often encountered in the ambulatory care setting. Emphasizes hands-on experience. Prerequisites: MOAP 111 and MOAP 136.

MOAP 140 Medical Assisting Clinical Skills (4)
Principles and procedures. Methods of assisting clinicians with specialty physical examinations, diagnostic testing, procedures, treatments, and minor surgical procedures in the medical office. Principles of medication administration with an emphasis on oral and parenteral routes of drug administration. Prerequisites: MOAP 111 and MOAP 136.

MOAP 150 Pharmacology for Medical Assistants (3)
Overview of pharmacology. Drug action and uses, names, classifications, effects, interactions, regulation and safety. Vaccine and immunization schedules and administration. Information regarding the measurement of medications, dosage calculations, routes of administration, and commonly prescribed drugs in the medical office is provided. Prerequisite: MOAP 111.

MOAP 183 Medical Assistant Internship (5)
Supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. Business and clinical procedures. Positions are non-paid due to accreditation requirements. Permission of program coordinator required to begin internship.

MOAP 189 Review for Medical Assistant National Exam (1)
Preparation and practice for a national registration examination. Prerequisite: Program Director permission.

MULTIMEDIA ANIMATION (MGDA)

MGDA 106 Creativity & Visual Thinking (3)
Introduction to visual and oral skills necessary to analyze works of art and design, articulate complex ideas, and then present solutions cogently in 2-D and 3-D projects and presentations.

MGDA 111 Adobe Photoshop I (3)
Concentrates on high-end capabilities of raster photo-editing software as an illustration, design and photo retouching tool. Explores a wide range of selection and manipulation techniques applied to photos, graphics and videos.

MGDA 112 Adobe Illustrator I (3)
Introduces the processes of a vector drawing program. Tools used to create digital artwork used in web design, print media and digital screen design.

MGDA 129 History of Animation (3)
Presents students with a descriptive overview of the advent and evolution of cinema animation from its earliest origins through the present day. Students examine important individuals and studios in the animation field. Students view, analyze and peer critique animation examples in film and media. Social, cultural, artistic movements, and influences on contemporary animation styles and animation technique are examined.

MGDA 149 Animation Drawing/Design (3)
Students learn the foundational skills necessary to create characters for use

in computer based animation courses. Students learn to draw human and animal forms using pencil and paper. Character development, anatomy, dynamic movement and action, and scenery are emphasized.

MGDA 152 Digital Animatics (3)
Introduces steps used by professional animators and game designers for producing media in a digital environment. Foundational skills of planning, organizing, storyboarding and pre-visualization techniques necessary to create animated stories emphasized. Study of the history of animation and game design.

MGDA 153 3D Animation I (3)
Encompasses all major aspects of creating 3D characters using animation software. Use of developed characters to learn how to animate for personality.

MGDA 163 Sound Design I (3)
Use of sound in multimedia production and audio storytelling. Examination of the principles of recording. Focus on enhanced interactive productions and improved computer presentations. Using a computer for full audio editing studio.

MGDA 164 Digital Video Editing I (3)
Introduction to digital editing. Capturing, compressing, editing, and manipulating video images. Techniques including media management, editing tools, titles, and motion control, transitions and filters, and special effects explored.

MGDA 165 After Effects I (3)
Provides the fundamental techniques for creating digital motion graphics such as 2D animations, animated logos, video graphics, etc. Classes cover relevant tools and techniques as well as industry standards, delivery methods and output.

MGDA 220 Advanced Character Rigging (3)
Explores advanced character rigging features of a specific 3D modeling and animation software in depth. Students will understand working with joints, forward kinematic (FK) and inverse kinematic (IK) blending and adding controls. Students create spines using nested constraints and expressions to subdivide vertebra poses (Isner Spines).

MGDA 253 3D Animation II (3)
Advanced aspects of creating 3D characters on a computer. Examination of facial animation, lip synchronization, scene design and lighting set-ups.

MGDA 257 Animation Production (3)
Examines development of 3D animation from a production standpoint. Process of transforming conceptual designs into actual projects explored. Management function of tasks associated with the business end of development studied. A 3D animation project will be produced.

MGDA 292 Capstone (3)
Demonstrated culmination of learning within given program of study. Taking an animation from beginning concept, storyboard to end of production.

MUSIC: ACADEMIC (MUSA)

MUSA 101 Concert Attendance (0)
Required attendance at concerts to gain an appreciation for music and music performance. Majors must meet attendance requirements at approved music concerts and Recital Hour for eight semesters as a graduation requirement.

MUSA 111 Music Technology (1)
Introduction to computer applications in music. The course begins with a focus on basic computer operation and the installation of the various software programs that will be used in the course. The course will include an overview of the three basic music applications for computers: notation software, Computer Assisted Instruction (CAI) software, and sequencing software (including digital audio). Corequisite: MUSA 114.

MUSA 113 Fundamentals of Theory (3)
Required theory course for music minor and music theatre students. Harmonic principles of music, including scales, intervals, triads, and chords. Concurrent enrollment in MUSA 130 or prior knowledge of the keyboard required.

MUSA 114 Theory I-Introduction (3)
Harmonic principles of the "common-practice" period including scales, intervals, triads and 7th chords. Introduction to part writing and voice leading. Prerequisite: satisfactory score on theory placement examination; concurrent enrollment in MUSA 116; concurrent enrollment in MUSA 130 or prior knowledge of the keyboard.

MUSA 115 Theory II-Diatonic Concepts (3)
Continuation of MUSA 114, extending to all types of diatonic 7th chords, and their usages. Includes advanced rules of tonal harmonization. Prerequisite: MUSA 114 or consent of instructor; concurrent enrollment in MUSA 117. Concurrent enrollment in MUSA 131 or prior knowledge of the keyboard is required.

MUSA 116 Ear Training and Sightsinging I (2)
Skills developed in reading rhythms, sightsinging, and listening. Emphasis on beginning melodic, harmonic, and rhythmic dictation. To be taken concurrently with MUSA 114.

MUSA 117 Ear Training and Sightsinging II (2)
Further development of skills in sightsinging, rhythmic recognition, advanced listening abilities, including dictation of melodic and harmonic intervals, chord progressions, and two, three, and four-part chorales. To be taken concurrently with MUSA 115. Prerequisite: MUSA 116.

MUSA 128 Workshop In Music (1-3)
Consists of specialized workshops in various aspects of music made possible by visiting artists and/or lecturers.

MUSA 130 Class Piano I (2)
For major and non-major students. Application of scales, chords and elements of music at the keyboard and development of repertoire. Recommended for all elementary, early childhood majors and music theatre majors. Prerequisite: MUSA 110 (music majors only).

MUSA 131 Class Piano II (2)
The student gains further expertise at the keyboard. Prerequisite: MUSA 130 or consent of instructor.

MUSA 137 Class Voice (1)
Fundamentals of singing, interpretation, phonetics, language (diction for singers), and solo repertoire for beginning voice students.

MUSA 214 Theory III - Chromatic Concepts (3)
The full use of chromaticism through secondary dominants, altered chords, Neapolitan and augmented sixth chords, and modulation techniques. Continues into 20th Century including the use of advanced chromaticism, serialism, and atonality. Includes advanced development of ear training and sightsinging. Emphasis on harmonic and rhythmic dictation. Continuation of MUSA 115 and 117. Prerequisites: MUSA 115 and 117.

MUSA 215 Theory IV - Twentieth Century Form and Analysis (3)
Study of various compositional approaches and techniques of the 20th Century, correlated with the study of musical form. Includes advanced development of ear training and sight singing. Emphasis on harmonic and rhythmic dictation. Continuation of MUSA 214. Prerequisite: MUSA 214.

MUSA 216 Keyboard Harmony (2)
Keyboard and theory skills applied to perform harmonization of a given line, transposition at sight, and open score realization and sightreading at the keyboard. Prerequisite: MUSA 214 and 230.

✓ **MUSA 220 Music Appreciation-GTAH1 (3)**
Masterpieces of music, composers, and performers useful for the music student who has a weak background in the Masters.

MUSA 228 Workshop In Music (1-3)
Consists of specialized workshops in various aspects of music made possible by visiting artists and/or lecturers.

MUSA 230 Class Piano III (2)
A concentrated study of repertoire in preparation for the piano proficiency exam. Maximum keyboard time will develop coordination and flexibility. Prerequisites: MUSA 130, 131, or consent of instructor.

MUSA 231 Class Piano IV (2)
A continuation of the concepts introduced in MUSA 230. Reinforcement and new concepts of keyboard skills including minor scales and arpeggios, triad inversions, cadence progressions, harmonization, transposition, repertoire pieces to develop technical facility and knowledge of musical style. Prerequisites: MUSA 230 or consent of the instructor.

MUSA 232 String Instrument Techniques and Materials (2)
Study of violin, viola, cello, and string bass in a class situation. Emphasis is on fundamentals of playing techniques at an elementary level.

MUSA 233 Woodwind Pedagogy and Materials (2)
Study of flute, oboe, clarinet, bassoon, and saxophone in a class situation. Emphasis is on fundamentals of playing techniques at an elementary level.

MUSA 234 Brass Instrument Techniques and Materials (2)
A concentrated course to develop a knowledge of the brass instruments and to acquire sufficient skill to demonstrate good tone, technique, and breath control.

MUSA 235 Percussion Instrument Techniques and Materials (2)
The study of methods and materials for teaching beginning percussion in the public school. Includes practical instruction on the instruments utilized in the marching band, orchestra, and stage band.

MUSA 236 Electronic Instrument Techniques and Materials (2)
The study of methods and materials for the introduction to the use of electronic instruments, including the areas of sound reinforcement (microphones and amplification) and sound generation (synthesis) by electronic means.

MUSA 240 Introduction to Music Education (2)
Includes historical survey of the profession. Observation of effective music teachers to determine successful classroom management systems and methods of instruction. 20 field experience hours integrated as a lab. Development of personal philosophies of music education following a study of philosophical trends in music education. Prerequisites: MUSA 115, 117.

MUSA 241 Music and Methods in Early Childhood Education (2)
For students who will be working with preschoolers and kindergarten-age students. Through the creative process students develop simple tunes and gain knowledge and appreciation of music.

MUSA 250 Beginning Conducting (2)
Basic concepts and techniques necessary to conduct music. Students will be expected to master patterns, fermatas, dynamics, etc. Observation of other conductors and score study is included. Required of all music majors. Prerequisites: MUSA 214, 217. Corequisites: MUSA 215, 218.

✓ **MUSA 266 History of Popular Music-GTAH1 (3)**
Differences in style, musical elements, lyrical content, and outstanding artists/writers in the areas of popular, rock, Country Western, and jazz idioms. Evolutionary aspects and social significance are introduced as background references. Guest lectures, class listening sessions, film strips, and music video augment the lecture sessions. Open to all students.

MUSA 268 Beginning Jazz Improvisation (1)
Materials and techniques for improvisation, including chord and scale construction, modality, harmonic patterns, linear concepts, with emphasis on technique, style and idiomatic usage. Prerequisites: MUSA 115 or consent of instructor. Corequisites: MUSA 214 or consent of instructor.

MUSA 296 Topics (1-3)

MUSA 302 Keyboard Literature I (3)
Survey of keyboard literature from Elizabethan music through Mendelssohn. Prerequisites: MUSA 230 or consent of instructor, MUSL 230.

MUSA 303 Symphonic Literature (3)
Survey of music from early instrumental to present-day compositions. Emphasis on composers' styles, orchestras, conductors; chamber orchestra music also included. Prerequisites: MUSA 215.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

MUSA 304 Keyboard Literature II (3)
Survey of keyboard literature from Chopin to the present day. Prerequisites: MUSA 231, MUSL 230, or consent of instructor.

MUSA 310 Accompanying Techniques (2)
Development of accompanying proficiency, including listening skills, form, and analysis of the music to be performed; rehearsing techniques; accompanying repertoire for vocal; instrumental; and ensemble playing. Prerequisites: MUSA 214, 216 or consent of instructor.

MUSA 311 Advanced Music Technology (1)
Application of advanced technological tools in music recording, editing, composition, and production, including audio components and connections; digital audio multi-track recording, synthesis, sequencing, sampling, and editing; and microphone techniques. Prerequisite: MUSA 111.

MUSA 317 Orchestration (2)
Choral and instrumental arranging; instrumentation, scoring, and analysis of harmonic styles of various composers. Students are required to compose and arrange original works. Prerequisite: MUSA 215.

MUSA 318 Vocal Literature (3)
Follows the changing patterns, styles, and fashions of the secular art-song from medieval Europe to Europe and America of the day. Prerequisites: MUSA 137 or previous enrollment in private vocal studies.

MUSA 319 Choral Literature (3)
Historical, analytical, and interpretive study of choral literature spanning the Renaissance through the 20th Century. Important course for those planning to direct choirs. Prerequisite: previous or concurrent enrollment in a Colorado Mesa University choir or consent of the instructor.

MUSA 326 Music History and Literature I (3)
Literature and styles of the master composers of music through the Ancient, Medieval, Renaissance, and Baroque periods. Course work is designed for the music major, utilizing a lecture and listening laboratory format and one scholarly research paper of the student's choice. Prerequisite: MUSA 114.

MUSA 327 Music History and Literature II (3)
Literature and styles of the master composers of music through the classic, romantic, and modern ages. Coursework is designed primarily for the music major, utilizing a lecture and listening laboratory format and one scholarly research paper of the student's choice. Prerequisite: MUSA 114.

MUSA 328 Workshop In Music (1-3)
Consists of specialized workshops in various aspects of music made possible by visiting artists and/or lecturers.

MUSA 337 Diction For Singers (2)
Pronunciation of Italian, German, and French as applied to the performance of vocal literature.

MUSA 340 Teaching Elementary and General Music: Methods, Principles, and Materials (3)
For Music Education Majors: The course is designed for standards-based curriculum for elementary and general music classes. Weekly laboratory experiences focus on course content dealing with teaching competencies in elementary and general music. Also addresses how to teach literacy in the music classroom. Includes 30 hours of field experience. Prerequisites: MUSA 215, 218, 240, 250.

MUSA 350A Advanced Conducting: Choral (2)
More difficult techniques such as advanced meters, advanced score study, interpretive conducting and ensemble rehearsal techniques. Required of all music education majors. Prerequisites: MUSA 250.

MUSA 350B Advanced Conducting: Instrumental (2)
More difficult techniques such as advanced meters, advanced score study, interpretive conducting and ensemble rehearsal techniques. Required of all music education majors. Prerequisites: MUSA 250.

MUSA 363 Music Industry and Marketing (3)
Exploration of business aspects of the music industry, with an emphasis on careers and music marketing.

MUSA 368 Advanced Jazz Improvisation (2)
Advanced Improvisation is the continuation of Beginning Improvisation. Advanced theoretical concepts will be addressed with expansion of repertoire and improvisational patterns. Prerequisites: MUSA 268, MUSA 215, Class Piano IV/piano proficiency, or permission of instructor.

MUSA 395 Independent Study (1-3)

MUSA 396 Topics (1-3)

MUSA 410 Vocal Pedagogy (3)
The physiology of the human vocal mechanism, various teaching styles, vocal problems related to various age groups, and vocal repertoire pertinent to all age groups and levels of development. Prerequisites: MUSA 137 or previous or concurrent enrollment in private vocal studies.

MUSA 411 Piano Pedagogy (3)
Introduction to the field of piano teaching and learning/teaching theories with application to piano teaching. Survey of methods and literature. Instructional techniques for group and individual lesson settings. Prerequisites: MUSA 231, MUSL 230 or consent of instructor.

MUSA 426 The Music of World Cultures (2)
An exploration of music outside the Western Classical music tradition. Musical traditions include music of the Orient, Africa, India, and North and South American ethnic music. The course will also examine ethnic music from other world cultures such as Afro Cuban and Brazilian as well as blues and jazz music developed in the United States. Prerequisite: MUSA 215, MUSA 231 or piano proficiency, or permission of the instructor.

MUSA 428 Workshop In Music (1-3)
Consists of specialized workshops in various aspects of music made possible by visiting artists and/or lecturers.

MUSA 440 Teaching Vocal Music K-12: Methods, Principles, and Materials (3)
Standards-based instruction of elementary and general music classes for Music Education majors. Training in concepts, methodology, and materials necessary to teach standards-based vocal music in public/private schools. Includes 30 hours of field experience. Prerequisites: MUSA 137, MUSL 137, or MUSP 150, MUSA 350A or 350B.

MUSA 441 Teaching Instrumental Music K-12: Methods, Principles and Materials (3)
Designed for standards-based music curriculum for teaching instrumental music in the public schools. Activity will be centered on developing teaching competencies, administration of the music program, and methods, materials, equipment and technology needed for the instrumental music program. Includes 30 hours field experience. Prerequisites: MUSA 350A or 350B.

MUSA 442A Teaching Special Ensembles: Choral (2)
Practical knowledge and methodology in the teaching of (A) Show/Jazz Choirs and (B) Marching/Jazz Bands. Students will learn the skills necessary to direct these ensembles. Includes 30 hours of field experience. Prerequisites: MUSA 215, 218, 240 and 250. Corequisites: MUSA 350A or 350B if not completed.

MUSA 442B Teaching Special Ensembles: Instrumental (2)
Practical knowledge and methodology in the teaching of (A) Show/Jazz Choirs and (B) Marching/Jazz Bands. Students will learn the skills necessary to direct these ensembles. Includes 30 hours of field experience. Prerequisites: MUSA 215, 218, 240 and 250. Corequisites: MUSA 350A or 350B if not completed.

MUSA 495 Independent Study (1-3)

MUSA 496 Topics (1-3)

MUSA 499 Internship (1-4)
Work experience obtained on a job in the music industry. Prerequisites: Senior status, MUSA 363, and consent of instructor.

MUSA 596 Topics: (1-3)

MUSIC: APPLIED MUSIC LESSONS (MUSL)

MUSL 130, 230, 330, 430
Piano (1,2)
MUSL 131, 231, 331, 431
Guitar (1,2)
MUSL 132, 232, 332, 432
Strings (1,2)
MUSL 133, 233, 333, 433
Woodwinds (1,2)
MUSL 134, 234, 334, 434
Brass (1,2)
MUSL 135, 235, 335, 435
Percussion (1,2)
MUSL 136, 236, 336, 436
Electronic Instruments (1,2)
MUSL 137, 237, 337, 437
Voice (1,2)
MUSL 138, 238, 338, 438
Composition (1,2)
MUSL 350, 450
Conducting (1,2)

MUSIC: PERFORMING (MUSP)

MUSP 140, 240, 340, 440
Wind Symphony (1)
A symphony comprised of serious wind and percussion students, including music majors and non-music majors, who perform a wide variety of standard and current literature. Audition with conductor required.

MUSP 141, 241, 341, 441
Symphony Orchestra (1)
Ensemble designed to rehearse and perform symphonic literature as well as choral, opera and concerto repertoire. Audition required.

MUSP 144, 244, 344, 444
Jazz Ensemble (1)
A group utilizing stage band instrumentation and performing many local and required concert engagements. By audition; preference given to members of Symphonic Band.

MUSP 145, 245, 345, 445
(Section A) Instrumental Ensemble - Woodwinds (1)
(Section B) Instrumental Ensemble – Brass (1)
(Section C) Instrumental Ensemble – Strings (1)
(Section D) Instrumental Ensemble – Percussion (1)
(Section E) Instrumental Ensemble – Guitar (1)
(Section F) Instrumental Ensemble – Piano (1)
Groups organized upon the talents and interests of the members. Specified ensembles may be offered from time to time in the format of String Quartets, Woodwind, and Brass Choirs, etc. A minimum of one public performance per each term of enrollment is required. Prerequisite: MUSP 145, 245, 345, 445 require audition by the band director.

MUSP 146, 246, 346, 446
Community Performance Organizations (1)
Opportunity for students and other musicians in the community to participate in various community musical groups, such as the Grand Junction Symphony. Audition with conductor is required.

MUSP 148, 248, 348, 448
Chamber Orchestra (1)
Ensemble designed to rehearse and perform chamber orchestra works. This ensemble will involve strings as well as woodwind and brass instruments. Audition required.

MUSP 149, 249, 349, 449
Young Artist Orchestra (1)
Instrumental music students are provided the opportunity to perform baroque, classical, romantic and 20th century full orchestra repertoire. One rehearsal per week and at least one formal concert per semester featuring a talented soloist. Membership is by audition.

MUSP 150, 250, 350, 450
Concert Choir (1)
The major large choir, open to all students and staff who enjoy singing, with final membership approved by the director. Concert Choir performs great choral literature of all types representing Colorado Mesa University in formal concerts both on and off campus including concert tours, performing large-scale masterworks with orchestra.

MUSP 156, 256, 356, 456
Chamber Choir (1)
An advanced smaller choral ensemble which performs vocal literature from Renaissance to Contemporary art music including jazz. Chamber Choir performs on and off campus, on concert tours,

and at the annual Madrigal Dinners. Staff and students are eligible by audition; membership in Concert Choir generally a prerequisite.

MUSP 157, 257, 357, 457
Male Choir (1)
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined men's voices. Concertizes in conjunction with other university choral ensembles and in separate performances on-off campus. Prerequisites: Taken in sequence. Members must perform a brief audition with instructor.

MUSP 158, 258, 358, 458
Women's Chorus (1)
Performances include the complete range of music written for combined women's voices, both on and off-campus, and in conjunction with the other university choral ensembles in Music Department concerts. Prerequisites: consent of director.

MUSP 159, 259, 359, 459
Vocal Jazz Ensemble (1)
Exploration of wide range of vocal literature. Performances given, both on and off campus. Prerequisites: consent of instructor.

MUSP 162, 262, 362, 462 Combo (1)
Interested students team up with a rhythm section in learning tunes and "head" charts, improving skills and making practical application of improvisation.

MUSP 365 Opera Workshop (1)
Development of vocal performance operatic skills for majors and minors within a musical and theatrical workshop. Operatic repertoire selected for class study. Stage movement, character study, audition techniques, resume construction and mock auditions incorporated. Prerequisite: Completion of Sophomore Review. Corequisite: MUSL 337.

MUSP 395 Independent Study (1-3)

MUSP 396 Topics (1-3)

MUSP 420 Senior Recital (1,2)
Preparation for senior level recital in the student's performance medium with recital approved by the music faculty and recital given during the semester in which the student is registered for this course. Scholarly program notes covering historical aspects, theoretical issues, and/or performance considerations of the recital repertoire are required for the official printed senior recital program. Music Education majors take this course for one credit; Performance majors take this course for two credits.

MUSP 465 Opera Scenes (1)
Continuation of artistic and technical skills introduced in MUSP 365. Focus on operatic production of staged, public performance of either selected opera scenes or a one or two-act opera. Prerequisites: Completion of Sophomore Review or instructor approval. Corequisites: MUSL 437 or instructor approval.

MUSP 495 Independent Study (1-3)

MUSP 496 Topics (1-3)

NURSE AIDE TRAINING (NURA)

NURA 101 Nurse Aide Healthcare Skills (4)
Fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety and emergency care covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity, principles of mental health, patient/resident rights addressed.

NURA 170 Nurse Aide Clinical Experience (1)
Applies knowledge and skill gained in NURA 101 to patient care. Independent functioning within the nurse aide scope of practice in applying knowledge and skills gained in Nurse Aide Healthcare Skills. Enhanced communication, cultural competency, end of life care, critical thinking and organizational skills emphasized. Prerequisite: NURA 101

NURSING (NURS)

NURS 101 Pharmacology Calculations (1)
Course introduces the concepts and techniques of dosage calculations and medication administration by a variety or routes. Application of basic math concepts to complex conversion of dosages between and among various systems of weights and volumes, and application of critical thinking skills to the calculation and administration of medications by oral and parenteral (including intravenous) routes of administration. Prerequisites: BIOL 209/209L, BIOL 210/210L, ENGL 111, ENGL 112, PSYC 233.

NURS 106 Fundamental Medical Surgical Concepts I (3)
NURS 106L Fundamental Medical Surgical Concepts I Laboratory (2)
Course introduces the role of the nurse in assessing and meeting the medical and surgical needs of adults across the lifespan in various health care settings. Knowledge from foundations of nursing, the sciences, pharmacology, and nutrition provide foundations for nursing care for medical/surgical clients. Prerequisites: BIOL 209/209L, BIOL 210/210L, ENGL 111, ENGL 112, PSYC 233.

NURS 107 Foundations of Nursing (3)
NURS 107L Foundations of Nursing Laboratory (2)
Course introduces the applications of critical thinking and the nursing process to clients in a variety of community and acute care settings. Emphasis is in holistic health care wellness - illness continuum. Prerequisites: BIOL 209/209L, BIOL 210/210L, ENGL 111, ENGL 112, PSYC 233.

NURS 108 Foundations of Nursing II (3)
Introduces more complex concepts and behaviors of nursing roles within the cohort of the nursing process, holistic care, and health care. Emphasizes theoretical and practical aspects of more complex nursing skills required to meet the needs of clients in a variety of settings. Prerequisites: BIOL 209/209L, BIOL 210/210L, ENGL 111, ENGL 112, and PSYC 233. Corequisite: Successful completion of concurrent nursing program.

NURS 108L Foundations of Nursing II Laboratory (1)
This is the companion lab to NURS 108. Provides opportunity to practice more complex nursing skills required to meet the needs of clients in a variety of settings. Prerequisites: BIOL 209/209L,

BIOL 210/210L, ENGL 111, ENGL 112, and PSYC 233. Corequisite: NURS 108.

NURS 112 Basic Concepts of Pharmacology (2)
Course introduces the basic concepts of pharmacology related to actions, therapeutic and adverse effects, interactions of drugs, drug classification and the basic pharmacology of commonly used medications. Emphasis is placed on nursing considerations and client education. Prerequisites: BIOL 209/209L, BIOL 210/210L, ENGL 111, ENGL 112, PSYC 233.

NURS 117 Nursing Care of the Childbearing Family (2)
NURS 117L Nursing Care of the Childbearing Family Laboratory (1)
Fundamental course in the nursing care of the childbearing family. Focus on normal pregnancy, physiologic and psychological changes experienced, and care of the normal newborn. Prerequisites: NURS 101, NURS 106/106L, NURS 107/NURS107L, NURS 112.

NURS 118 Nursing Care of Children (2)
NURS 118L Nursing Care of Children Laboratory (1)
Course introduces the role of the nurse in meeting the individual needs of the child from infancy through adolescence in health and illness. Beginning assessment and use of the nursing process, basic growth and development, pathophysiology, nutrition, and relevant emotional, cultural, and family concepts are integrated throughout. Prerequisites: NURS 101, NURS 106/106L, NURS 107/107L, and NURS 112. Corequisites: NURS 117/117L, NURS 118L, NURS 156, and NURS 172L.

NURS 156 Socialization into Practical Nursing (1)
Introductory concepts for first time management. Examines legal and ethical responsibilities of the practical nurse. Emphasis is given to the Colorado Nurse Practice Act. Job seeking skills are discussed. Prerequisites: Must be eligible for graduation during semester in which NURS 156 is taken - completion of NURS 101, NURS 106/106L, NURS 107/107L, NURS 112. Corequisites: NURS 117/117L, NURS 118/118L, and NURS 172/172L.

NURS 172 Fundamental Medical-Surgical Concepts II (3)
Continues to introduce the student to advancing medical-surgical nursing concepts. Integrates knowledge from foundational nursing, the sciences, pharmacology, and nutrition along with the integration of mental health and cultural concepts. Provides foundations for nursing care planning for medical and surgical clients. Prerequisites: NURS 101, NURS 106/106L, NURS 107/107L, NURS 108/108L, and NURS 112. Corequisites: NURS 117/117L, NURS 118/118L, and NURS 156.

NURS 172L Fundamental Medical-Surgical Concepts II Laboratory (3)
Course offers the clinical practicum to apply the related nursing theory in medical surgical nursing using the nursing process to assist clients with more complex health care needs. Prerequisites: NURS 101, NURS 106/106L, NURS 107/107L, and NURS 112. Corequisites: NURS 117/117L, NURS 118/118L, and NURS 156.

NURS 200 LPN to RN Role Transition (1)
Prepares the advanced placement student to enter the Nursing Program through orientation to the program, review of the nursing process and exploration of the role change from practical to professional nursing. Introduction to selected concepts related to the role of the Associate Degree nurse as a provider of care, teacher, manager, client advocate and member of the profession. Emphasis placed on critical thinking in providing and managing comprehensive care in a variety of health care settings with clients across the lifespan. Course is designed to assist the Licensed Practical Nurse with the transition into the practice of professional nursing. Prerequisites: All general education and program prerequisites.

NURS 201 Nursing Fundamentals (4)
NURS 201L Nursing Fundamentals Laboratory (3)
Introduction to the theoretical foundations of nursing in the areas of communication, assessment and critical thinking. Economic issues influencing the professional nurse are examined and important interpersonal and psychomotor skills are developed. Three one-hour lectures and three three-hour laboratories per week. Prerequisite: acceptance into BSN program. Corequisites: NURS 202/202L, 203, 204.

NURS 202 Health Assessment and Promotion (3)
NURS 202L Health Assessment and Promotion Laboratory (1)
Development of the knowledge necessary for completing an adult health assessment. History taking and physical assessment skills are utilized to develop appropriate interventions designed to assist clients with health promotion and lifestyle changes. Students explore principles of health promotion through the life span in a variety of settings. Three one-hour lectures and one three-hour laboratory per week. Prerequisites: acceptance into BSN program. Corequisites: NURS 201/201L, 203, 204.

NURS 203 Pharmacology I (2)
Introduction to drug therapy with the study of specific classifications, terminology, theories and techniques of safe administration. Using the nursing process, the toxicity of major drug classifications is investigated, as well as principles of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. Prerequisites: acceptance into BSN program. Corequisites: NURS 201/201L, 202/202L, 204.

NURS 204 Nursing Theory/ Foundations (1)
Examination of the history of professional nursing as a scientific discipline. Critical thinking and reasoning are utilized to evaluate selected nursing theories. The language and process of nursing research are introduced as a framework for making sound clinical judgments. Professional networking and legal/ethical issues will be examined. Prerequisites: acceptance in BSN program. Corequisites: NURS 201/201L, 202/202L, 203.

NURS 206 Advanced Concepts of Medical-Surgical Nursing I (3)
NURS 206L Advanced Concepts of Medical-Surgical Nursing Laboratory (2)
Role of the registered professional nurse as care provider, teacher, manager,

professional and advocate in meeting the nursing care needs of adults across the life span experiencing illness to wellness. The clinical lab provides opportunity for the student to utilize the nursing process and integrate previous learning to assist the patient and family in achieving optimal functioning in the various health care settings. Corequisites: NURS 206 and NURS 288.

NURS 210 Nursing Care of Complex Obstetrical and Pediatric Clients (3)
NURS 210L Nursing Care of Complex Obstetrical and Pediatric Clients Laboratory (2)
[AAS Program only] Prepares the professional nurse to comprehend and apply advanced concepts in care of the high-risk child bearing family and for children with complex health problems from birth through adolescence. Emphasizes special needs and complications during the perinatal experience and altered functioning, special needs, and disease processes manifested in children. The nursing process is used as a framework to attain optimal levels of maternal-newborn and pediatric health and wellness. Legal and ethical accountability are integrated throughout the course. Critical thinking skills are utilized throughout. Prerequisites: All general education and prerequisites, NURS 288 and 200.

NURS 211 Nursing Care of the Psychiatric Client (3)
NURS 211L Nursing Care of the Psychiatric Client Laboratory (2)
Develops concepts of psychosocial integrity and emphasizes the function and responsibility of nursing in promoting and maintaining mental health of individuals and families. This course emphasizes communication and caring through the application of the therapeutic relationship and nursing process in the care and treatment of common clinical conditions/disorders. In the clinical lab students will develop proficiency in working with psychiatric clients in various settings in the community. Prerequisites: NURS 200 and NURS 288.

NURS 216 Advanced Concepts of Medical Surgical Nursing II (2)
NURS 216L Advanced Concepts of Medical Surgical Nursing II Laboratory (2)
[AAS Program only] Continues to focus on the role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the complex medical and surgical health care needs of adult clients. Utilizing the nursing process, the student is expected to integrate previous learning to assist the patient and family in achieving optimal functioning in various complex health care situations and settings. Prerequisites: All general education and prerequisites, NURS 206, NURS 288, and NURS 200.

NURS 217 Leadership for Professional Nursing Practice (2)
[AAS Program only] Socializes the student into the graduate registered nurse role. The focus is on the exploration and analysis of contemporary nursing practice, current trends and issues impacting nursing care delivery. Advanced leadership and management concepts are discussed as part of the nursing role. Prerequisites: All general education and prerequisites, and NURS 200.

NURS 286 Advanced Pharmacology for Nurses (2)
Focuses on advanced concepts of pharmacology within nursing with an emphasis on nursing process, drug doses, calculations and relevant assessments and patient teaching. Prerequisites: BIOL 209/209L, BIOL 210/210L, BIOL 241, and PSYC 233. Corequisites: NURS 200, 206/206L, and 289.

NURS 288 Health and Physical Assessment for Nursing (2)
[AAS Program only] Development of the knowledge necessary for completing health assessment across the life span. History taking, physical assessment skills, and principles of health promotion are utilized to develop appropriate interventions designed to assist clients with health promotion and life style changes. Prerequisites: All general education and prerequisites. Corequisite: NURS 206 and 200.

NURS 289 Capstone: Comprehensive Nursing Internship (1)
Facilitates transition from student to graduate nurse through application of nursing principles and skills in an area of health care delivery. Critical thinking, life-long learning, nursing process, caring, collaboration, and health teaching and promotion are emphasized. Prerequisites: All prerequisites for the AAS program, NURS 200, NURS 206, NURS 288, NURS 211, NURS 217. Corequisites: NURS 210 and NURS 216.

NURS 300 Professional Transitions and Development (3)
Introduction to selected concepts related to care of the adult client, the childbearing and childbearing families. Designed to facilitate the transition of the diploma and associate degree graduate to the professional practice of nursing at the baccalaureate level. Credit for previous completed nursing courses (with grades of C or better) will be held in escrow until this course has been successfully completed.

NURS 301 Medical Surgical Process (4)
NURS 301L Medical Surgical Process Laboratory (4)
Application of the nursing process in the care of individuals and their families experiencing deviations from their usual levels of wellness from onset to resolution. Pathophysiological problems of moderate intensity and relative stability are explored. The nursing process is used to support the coping mechanisms of individuals and their families to assist in the regaining and maintaining of optimal wellness. Three one-hour lectures and four three-hour laboratories per week. Prerequisites: NURS 201/201L, 202/202L, 203, 204. Corequisites: NURS 302, 303, 304.

NURS 302 Family Nursing Through the Lifespan (3)
Theory of family-centered practice in nursing. Utilizing the nursing process, students gather and analyze data to formulate and evaluate interventions with families from diverse backgrounds. Selected learning experiences provide opportunities for the student to develop cognitive, psychomotor and affective competencies essential to the care of both healthy and high-risk families

through the lifespan. Three one-hour lectures and one three-hour laboratory per week. Prerequisites: NURS 201/201L, 202/202L, 203, 204. Corequisites: NURS 301/301L, 303.

NURS 303 Professional Development (2)
Introduction to basic knowledge and skills related to organizational structure, systems of patient care delivery and communication within the health care team. Principles of time management, teaching-learning theories, and the role of the professional in nursing are explored. Clinical experience will be incorporated into the medical-surgical clinical lab. Awareness of the patient care environment, as well as the organization of health care delivery, will be documented through journaling. Prerequisites: NURS 201/201L, 202/202L, 203, 204. Corequisites: NURS 301/301L, 302, 304.

NURS 304 Pharmacology II (2)
Continuation of Pharmacology I covering the nursing process, principles of pharmacokinetics, pharmacodynamics, pharmacotherapeutics and toxicity of major drug classifications. Prerequisites: NURS 201/201L, 202/202L, 203, 204. Corequisites: NURS 301/301L, 302, 303.

NURS 313 Mental Health (3)
NURS 313L Mental Health Lab (2)
Development of a knowledge base of mental health and illness, emphasizing the development of interpersonal skills in the use of the therapeutic relationship. Specific learning experiences provide opportunities for the student to develop proficiency in the practice of psychiatric mental health nursing with diverse populations. Two one-hour lectures and two three-hour laboratories per week. Prerequisites: NURS 301/301L, 302, 303, 304. Corequisites: NURS 314/314L, 315/315L.

NURS 314 The Childbearing Family (3)
NURS 314L The Childbearing Family Laboratory (2)
Study of the competencies needed to care for the diverse childbearing family through the trimesters of pregnancy. High risk and complications of pregnancy are addressed as well as critical issues of women's health care. Theoretical content is applied in acute care and community settings. Two one-hour lectures and two three-hour laboratories per week. Prerequisites: NURS 301/301L, 302, 303, 304. Corequisites: NURS 313/313L, 315/315L.

NURS 315 Pediatrics (2)
NURS 315L Pediatrics Laboratory (1)
Emphasis on use of the nursing process in the care of children and adolescents experiencing alterations in wellness. The clinical component provides experience with clients in acute care and community settings. Two one-hour lectures and one three-hour laboratory per week. Prerequisites: NURS 301/301L, 302, 303, 304. Corequisites: NURS 313/313L, 314/314L.

NURS 395 Independent Study (1-3)

NURS 396 Topics (1-3)

NURS 403 Community Health Nursing (4)
NURS 403L Community Health Nursing Laboratory (2)
Theoretical basis for the practice of public health nursing. Students investigate the principles and practice of public health nursing including epidemiological investigation, environmental health issues, methods of community health assessment, and interventions with selected population groups. Application of course content is demonstrated in the concurrent clinical course. One one-hour lecture and two three-hour laboratories per week. Prerequisites: NURS 312, 313/313L, 314/314L, 315/315L. Corequisites: NURS 406/406L and NURS 407.

NURS 406 Advanced Medical/Surgical (3)
NURS 406L Advanced Medical/Surgical Laboratory (3)
Advanced medical-surgical concepts essential for nursing care of adults requiring intervention in relation to complex multi system illness or injury. The clinical practicum provides opportunity for application of nursing care in institutional and community settings. Three one-hour lectures and three three-hour laboratories per week. Prerequisites: NURS 312, 313/313L, 314/314L, 315/315L. Corequisites: NURS 403/403L, 407, 415.

NURS 407 Nursing Research (3)
Research with an emphasis on the assessment of the outcomes of health promotion and health care interventions. Research questions relevant to clinical practice are developed, with projects being completed the following semester. Prerequisite: STAT 200. Corequisites: NURS 403/403L, NURS 406/406L, NURS 415.

NURS 411 Leadership (2)
NURS 411L Leadership Laboratory (1)
Use of personal characteristics of the nurse in development of leadership and management strategies. Leadership and management theory are presented. The role of the professional nurse as change agent in shaping health care for the future is explored. Two one-hour lectures and one three-hour laboratory per week. Prerequisites: NURS 403/403L, 406/406L, 407. Corequisite: NURS 412L.

NURS 412L Senior Specialty Laboratory (4)
Development of specialty-focused knowledge and skills in a specified area of interest. Knowledge and skills from basic and upper-division general education and nursing disciplines are integrated when implementing increasingly complex roles to deliver quality nursing care to individuals and groups in a focused clinical area. Prerequisites: NURS 403/403L, 406/406L, 407. Corequisites: NURS 411/411L, 415, 416.

NURS 415 Business of Health Care (2)
Appraisal of socio-economical factors as they challenge the health care professional's ability to provide quality care. Prerequisites: NURS 403/403L, 406/406L, 407.

NURS 417 Forensic Science: The Human Interface (2)
Introduces the principles of forensic science as they relate to care of individuals experiencing events which require intervention from both the legal and health care systems. Integrates concepts from health care, psychology, sociology, criminology used to clinically investigate crimes against humans. Focuses on the unique knowledge and attributes that health care professionals contribute to multidisciplinary forensic

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

investigation. Addresses various aspects of forensic investigation including role of the forensic scientist in working with the victim and the perpetrator, wound identification and collection of evidence. Specific areas of domestic violence, sexual assault, elder abuse, gang behavior, death investigation, victims' advocacy and courtroom dynamics are included. Students will experience forensic investigation in clinical areas. Prerequisite: Acceptance into the B.S.N. program, or consent of instructor.

NURS 450 Intensive Care Areas Specialty Practice Preparedness (3)
Overview of the dynamics of the collaborative and independent nature of nursing practice within critical care, perioperative, and emergency nursing. Commonalities of practice areas will be explored within the context of the nursing process. Includes recognizing and analyzing pertinent diagnostic data and physical and psychosocial assessment data; identifying common patient health problems and interventions; and determining patient outcomes. Prerequisite to the in-depth specialty practice courses.

NURS 480 Basic Concepts in Palliative Care (3)
Provides basic theory about the practice of hospice and palliative care with focus on the consequences of progressive, predictable disease, providing attention to the whole person and family, and using scientific practice in developing treatment for pain and symptoms. Explores assessment, advanced communication skills, responses to loss, advance care planning, symptom management, and cultural and ethical issues.

NURS 495 Independent Study (1-4)

NURS 496 Topics (1-3)

NURS 500 Theoretical Foundations (3)
Focuses on the critical components of contemporary nursing knowledge, including concepts, statements, metaparadigms, philosophies, conceptual models, and theories. Evaluates the variety of ways to organize nursing knowledge and explore the implications of their application. Through the clinical application of the course content, students examine the use of theory and nursing knowledge in professional environments.

NURS 501 Nursing Research Methods (3)
Provides an introduction to advanced research concepts and methodologies. It will explore the application of research to evidence-based practice as well as a broader scope of application to a variety of nursing research projects. Application of statistical concepts in data analysis and use of PASW computerized data analysis will assist the student to evaluate research findings and application to nursing practice. Prerequisite: Bachelor of Science in Nursing.

NURS 503 Organizational Leadership (3)
Utilizes leadership and management theory and application to develop skills or the understanding and implementation of change. Components of the course include leadership theory and models, change theory and models, project management and systems theory, financial management, organizational culture, and continuous process improvement.

NURS 504 Health Policy (3)
Prepares students to analyze policy issues, enhance their political knowledge and skills, and prepare for leadership roles in health policy-making. Cultivates understanding of political and economic forces related to nursing and health care delivery. Develops skills in influencing policy decisions related to health care, strategic partnerships, lobbying, use of media, and working with communities in today's changing health care environment. Prerequisite: Bachelor of Science in Nursing.

NURS 530 Chronic Illness Management (3)
Provides a framework for competency in chronic illness and disease which now accounts for a large percentage of the nation's health care costs. Introduction to the prevalence of chronic disease and its impact on the individual, family, community, and society is explored. Explores nursing's role in prevention and intervention of specific medical diseases, and psychosocial aspects of chronic illness and disability. Prerequisite: Bachelor of Science in Nursing.

NURS 535 Health Promotion and Disease Prevention (3)
Concentrates on the theories and principles involved in the planning and implementation of nursing interventions appropriate for health promotion and disease prevention with diverse populations across the life span. Focus is on wellness in children, adults and elderly emphasizing family-centered care that incorporates screening, teaching, and health counseling with strong health promotion focus across settings. Health promotion and disease prevention strategies to reduce health disparities with an emphasis on national health goals will be addressed. Prerequisite: Bachelor of Science in Nursing.

OFFICE TECHNOLOGY: ADMINISTRATIVE (OFAD)

OFAD 101 Office Bookkeeping (3)
Keeping records in a professional office or bookkeeping in a small retail firm. Fundamental bookkeeping principles including a strong basic knowledge of terms, concepts, and procedures. Includes opening through closing a set of books for both service and merchandising industries.

OFAD 103 Keyboarding (1)
For students who have minimal (less than 30 wpm) or no keyboarding skills. Introduces the touch method of keyboarding Emphasizes learning the alpha numeric keyboard, proper technique, and speed control.

OFAD 105 Ten Key (2)
Introduction to numeric input in the fields of data entry, bookkeeping, accounting, administrative assisting, insurance, banking, finance, and other areas. Teaches the numeric keyboard while focusing on touch control. Emphasizes the development of speed and accuracy using proper technique.

OFAD 118 Introduction to PC Applications (3)
Introduces basic computer terminology, file management, and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases, and presentation graphics.

Includes the use of a web browser to access the internet.

OFAD 147 Medical Terminology (4)
Basic medical terminology as applied to major systems of the body and related diseases. Includes special applications related to medical practice with emphasis on spelling.

OFAD 153 Word Processing I (3)
Instruction in the preparation of business documents for the modern office using current software and learning software commands and functions. Includes beginning to intermediate word processing techniques. Includes creating, processing, and editing documents. Prerequisite: the ability to keyboard at a minimum of 30 wpm.

OFAD 201 Office Procedures (3)
Presents new developments, technology, procedures, organization, and contemporary terminology used in effective office management. Emphasizes decision making and application of office administration skills. Includes personnel problems, costs, control and management of office work, methods of recognizing and solving communication problems, ethics, human relations, time management, conflict management, and multitasking techniques.

OFAD 202 Records Management (3)
Lecture/lab designed to provide instruction, principles, organization and procedures for alphabetic, numeric, subject, and geographic records management systems. Covers both manual and computerized methods for classifying, indexing, coding, storing, and retrieving records. Emphasizes hands-on records management through the use of simulations.

OFAD 206 Computerized Bookkeeping (3)
Essential coverage of computerized bookkeeping using current software applications. Introduction to software and basic accounting principles are included along with vendor and customer transactions. Online banking features, creation of customer files from inception, physical inventory, payroll, and sales tax are covered. Management of other current assets and long-term liabilities; preparation of estimates, use time tracking features, and classification/organization of data. General journal entries as well as report and template customization are covered. Prerequisite: OFAD 101.

OFAD 208 Spreadsheets (3)
Introduction to skills required to create and use effective and professional looking spreadsheets in a business environment using a spreadsheet application. Topics include fundamentals of spreadsheet design, application toolbars, creating and saving worksheets and workbooks, entering and using formulas and functions, formatting and printing, working with multiple workbooks, creating charts, managing lists (spreadsheet databases), creating and using templates, an introduction to simple macros, security, importing and exporting, and sharing spreadsheet information.

OFAD 221 Transcription Machines (3)
Proficiency in transcribing memos, letters and other business documents. Exercises to aid in improving spelling, word usage, punctuation, sentence and paragraph structure, and the ability to edit properly using standard proofreader's marks. Prerequisite: ability to keyboard at a minimum of 40 wpm.

OFAD 244 Legal Office Procedures (3)
Procedures found in legal offices either in the private or public sectors. Fundamental office procedures found in both general and specialized law offices. Simulates a typical legal office with the tasks and responsibilities performed in a legal office environment and shows how these tasks relate to the court system.

OFAD 248 Coding and Insurance Billing (3)
Introduces coding with an ultimate goal to present a clear picture of medical procedures and services performed (CPT codes), correlating the diagnosis, symptom, complaint or condition (ICD-9 codes), thus establishing the medical necessity required for third-party reimbursement. Covers how to abstract information from medical records and code for insurance billing purposes. Focuses on health insurance claim form CMS-1500 insurance billing requirements for private insurance and managed care, Medicaid, Medicare, and Worker's Compensation. Includes credit and collection practices as well as tracking reimbursement. Prerequisites: OFAD 147 and OFAD 153, sophomore standing, or consent of instructor.

OFAD 249 Medical Office Procedures (3)
Introduction to office administration duties specifically used in medical offices. Ethical issues related to a medical office setting, interpersonal communications, appointment scheduling, patient reception and registration, health information and management, medical billing, health insurance, financial management, and human resource management. Prerequisites: OFAD 153 and OFAD 253, sophomore standing, or consent of instructor.

OFAD 253 Word Processing II (3)
Lecture/lab provides instruction in intermediate to advanced word processing techniques. Continuation of OFAD 153 and provides more hands-on experience with the more advanced features of word processing. Reviews and expands word processing knowledge to increase proficiency and includes merging, sorting, tables, forms, outlines, tables of contents, graphics, charts, newsletters, document enhancements, reports, styles, macros, templates, and wizards. Prerequisite: OFAD 153.

OFAD 267 Presentation, Publishing, and Desk Top Management Software (3)
Focuses on delivery and integration of presentation software. Introduces the development of presentation graphics materials including graphs, charts, illustrations, and diagrams. Emphasizes effective communication through computerized presentations. Covers features of software and effective presentation techniques. Concepts and applications for desktop publishing emphasizing page layout and design with techniques for incorporating text and graphics and final production of printed documents. Introduces the functions used in desktop management software including e-mail, calendaring,

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contacts, tasks, journals, and notes. Prerequisite: OFAD 153.

OFAD 269 Database Management (3)
Introduction to skills required to create and use effective databases in a business environment using a database application. Topics include definition of databases, basics of relational database design, designing a relational database, and using a database application to implement a database.

OFAD 293 Cooperative Education (3-12)
Practical uses of educational training through the joint supervision of a participating employer and a designated faculty member. Provides the opportunity to supplement course work with practical work experience related to educational program and occupational objectives. Prerequisite: sophomore standing.

OFAD 295 Independent Study (1-3)

OFAD 296 Topics (1-3)

PHILOSOPHY (PHIL)

✓ **PHIL 105 Critical Thinking-GTAH3 (3)**
An introduction to the basic skill of critical reading, writing, and thinking needed for the intelligent, responsible, and ethical construction of one's worldview, conduct of one's life, and execution of one's civic duties. Topics include: argument identification, analysis, and construction; avoidance of common fallacies of reasoning; common deceptive and manipulative uses of language; writing clear and convincing argumentative essays.

✓ **PHIL 110 Introduction to Philosophy-GTAH3 (3)**
Includes an orientation to the discipline's concerns, branches, major schools of thought, and its relationship to other disciplines; a selection of readings from philosophers of all historical periods concerning major philosophical issues; practice in the process of philosophical reasoning, the critical analysis of philosophical writings, and the most basic rules of logic.

PHIL 120 Ethics (3)
Introduction to theoretical and applied Ethics. Major moral philosophers and moral theories surveyed. A general approach to moral reasoning developed. Development applied to discussion of recent writings on such issues as euthanasia, abortion, war, capital punishment, affirmative action, etc.

PHIL 130 Philosophy of Religion (3)
Exploration of fundamental issues regarding religion and examination of the principles of inquiry involved in dealing with such issues philosophically. Issues include the concept of God, arguments for the existence of God, the relationship between faith and reason, the validity of religious experience, pluralism in world religions, etc.

PHIL 150 Philosophical Forum (3)
Engagement with, and confrontation of, issues that challenge the community of Grand Junction and the Western Slope. Forum for speakers with varying positions and perspectives on economic, environmental, legal, social and cultural controversies. The deeper philosophical implications will remain in the forefront of the discussion.

PHIL 275 Introduction To Logic (3)
Forms of reasoning, valid versus fallacious inferences, strong versus weak arguments. Designed to increase the ability to reason clearly and correctly and follow and critically evaluate the reasoning of others.

PHIL 296 Topics (1-3)

PHIL 340 The Examined Life (3)
Introduction to practical philosophy. The application of philosophy to one's life in order to work toward the Socratic goal of living well. Topics covered include: Socratic thought, wisdom, Epicureanism, Stoicism, mindfulness, limiting beliefs, acceptance of reality, the self, creativity.

PHIL 350 The Roots of Western Thought (3)
Examination of the development of Western philosophical thought from its inception with the ancient Hellenes, through the Hellenistic and Medieval periods. Philosophical methods and problems will be discussed, including (but not limited to): ontology, metaphysics, political and social thought, death and the afterlife, the influence of philosophy on Christianity, the nature of the universe, human nature, the development of science and logic. Philosophers covered will include: The Presocratics, Socrates, Plato, Aristotle, Augustine, Aquinas, and others.

PHIL 395 Independent Study (1-3)

PHIL 396 Topics (1-3)

PHIL 410 Major Thinker (3)
In-depth study of one or two important philosophers. Attention paid to their historical, cultural, scientific, and philosophical contexts. Examination of relevant portions of the philosophers' works, arguments, objections, and responses. Additional emphasis on the place of the thinkers in the "great conversation" that is philosophy via related primary and secondary texts.

PHIL 420 Major Works (3)
In-depth study of the major and classic philosophical works of a philosopher or philosophical school. Emphasis on the historical, cultural, scientific, and philosophic contexts of the works. Examination of texts as they are situated in the philosopher's or school's opus, along with important influential writings preceding and following works influenced by these texts.

PHIL 430 Major Issues (3)
In-depth study of major and classic philosophical issues, with attention to their historical development, major contributors, and seminal texts. Exploration of the important works surrounding the issue and important objections and responses, with a view to developing individual positions.

PHIL 495 Independent Study (1-3)

PHIL 496 Topics (1-3)

PHYSICS (PHYS)

✓ **PHYS 100 Concepts of Physics-GTSC2 (3)**
Introduction to physics. Emphasis on basic conceptual aspects described in everyday language. Elementary mathematics introduced when necessary. Survey of topics such as Newtonian mechanics, heat and energy, electricity and magnetism, light, relativity and

quantum theory. The course is designed for majors outside of the sciences.

✓ **PHYS 101 Elementary Astronomy-GTSC2 (3)**
Introduction to astronomy. Survey of topics such as observational astronomy, the solar system, stellar astronomy, galaxies and cosmology. Emphasis on basic conceptual aspects of astronomy. Minimal use of elementary mathematics such as basic arithmetic, fractions, square roots and powers. The course is designed for students in all majors.

✓ **PHYS 105 Physics by Inquiry-GTSC1 (2)**
✓ **PHYS 105L Physics by Inquiry Laboratory-GTSC1 (1)**
Laboratory-based introduction to physics and the physical sciences. Starting from their own observations, students develop basic physical concepts, use and interpret different forms of scientific representations, and construct explanatory models with predictive capabilities. Topics include properties of matter, heat and temperature, magnets, electric circuits, motion, and astronomy. Recommended for prospective K-12 teachers.

✓ **PHYS 111 General Physics-GTSC1 (4)**
✓ **PHYS 111L General Physics Laboratory-GTSC1 (1)**
A survey of physics fundamentals. Topics include mechanics, electricity, magnetism, thermodynamics, sound, optics, and modern physics. Problem solving is emphasized. Prerequisite: a mastery of algebra and trigonometry. PHYS 111, 111L is a prerequisite for PHYS 112, 112L. Four lectures and one two-hour laboratory per week.

✓ **PHYS 112 General Physics-GTSC1 (4)**
✓ **PHYS 112L General Physics Laboratory-GTSC1 (1)**
A survey of physics fundamentals. Topics include mechanics, electricity, magnetism, thermodynamics, sound, optics, and modern physics. Problem solving is emphasized. Prerequisite: a mastery of algebra and trigonometry. PHYS 111, 111L is a prerequisite for PHYS 112, 112L. Four lectures and one two-hour laboratory per week.

PHYS 131 Fundamental Mechanics (4)
✓ **PHYS 131L Fundamental Mechanics Laboratory-GTSC1 (1)**
First of a foundation series of three physics courses for scientists and engineers. The Newtonian dynamics of matter is presented, along with the laws of momentum and energy conservation. Specific force laws are used to analyze problems drawn from engineering, biology, astronomy, and physics. Galilean relativity is discussed, and cultural as well as philosophical and practical aspects of physics are studied. The language of calculus and vector spaces is used throughout the course. Prerequisite: MATH 151 (may be taken concurrently). Four lectures and one two-hour laboratory per week.

✓ **PHYS 132 Electromagnetism and Optics-GTSC1 (4)**
✓ **PHYS 132L Electromagnetism and Optics Laboratory-GTSC1 (1)**
The second foundation physics course for scientists and engineers. The field is introduced with static electric and magnetic fields, both in free space and in matter. Electrodynamics is developed, including a discussion of Kirchoff's laws and circuit concepts. Maxwell's equations are presented and electromagnetic radiation discussed. The course concludes with an introduction to optics. Both geometric and the wave model for light are studied. The associated laboratory course will include experiments on fields, circuits, and optical systems. Prerequisites: PHYS 131, 131L, and MATH 152 (may be taken concurrently). Four lectures and one two-hour laboratory per week.

PHYS 196 Topics (1-3)

PHYS 230 Intermediate Dynamics (3)
Intermediate treatment of the dynamics of physical systems not covered in Fundamental Mechanics sequence. Includes fluid dynamics, classical waves and vibrations, thermodynamics, and relativistic kinematics and dynamics. Prerequisites: PHYS 132, 132L, and MATH 253 (may be taken concurrently).

PHYS 231 Modern Physics (3)
Quantum theory in the examination of blackbody radiation, the photoelectric effect, and energy quantization of atoms. The Schrodinger wave equation used to analyze simple quantum systems. Applications drawn from atomic and molecular physics, solid-state physics, nuclear and high-energy physics, and astrophysics. Prerequisites: PHYS 132, 132L, and MATH 253 (may be taken concurrently).

PHYS 251 Electronics for Scientists (3)
This laboratory-based course is an introduction to electric circuits and electronic instrumentation for scientists. The course will emphasize a practical approach, with students learning about electronic devices and how they work by building working circuits. Topics explored include passive circuits with resistors and capacitors, including applications in electric filtering; diodes; transistors; op-amps; timing circuits; feedback and amplification; and digital circuits. Prerequisites: PHYS 132 or PHYS 112.

PHYS 252 Intermediate Laboratory (2)
Students will perform experiments in optics, acoustics, and modern physics. Experiments will include measuring the speed of light, measuring the wavelength of atomic discharge lines, X-ray diffraction, and measuring h/e among others. Emphasis will be on experimental design, use of modern instrumentation, preparation of lab reports, and data analysis. Prerequisite: PHYS 231 (may be taken concurrently).

PHYS 296 Topics (1-3)

PHYS 300 New Directions in Science (3)
A survey of recent developments in science. This course is open to qualified students in liberal arts as well as the sciences. Faculty from various disciplines will participate. Topics will be drawn from astronomy, biology, chemistry, geology, physics, engineering, and applied mathematics. Permission of instructor required.

PHYS 301 Introduction to Space Science (3)
The history and technology of space and space exploration. Designed for all non-science majors, particularly prospective K-12 teachers. Topics include: the solar system, space environments, space travel, satellite communication and design.

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Prerequisites: junior or senior status, or consent of instructor.

PHYS 311 Electromagnetic Theory I (3)
A mature study of electromagnetic fields. The course begins with a review of Maxwell's equations. Static fields are analyzed and multipole expansion techniques exploited. Fields in dielectric and magnetic materials are then examined, and capacitance and inductance introduced. Electrodynamics is developed, along with concepts of field momentum and energy. Prerequisites: PHYS 132, PHYS 132L, MATH 260, MATH 360 (may be taken concurrently).

PHYS 312 Electromagnetic Theory II (3)
A continuation of PHYS 311. Electromagnetic waves were studied. Wave propagation in conducting and nonconducting media is examined, along with dispersion phenomena. Waveguides are examined. Electromagnetic field radiation is studied, both for point charges and for arbitrary charge distributions. The course concludes with a reformulation of electromagnetism in the language of special relativity. Prerequisite: PHYS 311.

PHYS 321 Quantum Theory I (3)
Quantum physics foundation. Includes quantum states, measurements, and time evolution using Dirac formalism for discrete and continuous systems. Connection between Dirac formalism and wave mechanics established and Schrodinger equation solved in various context. Includes particles in piecewise square potentials, tunneling, the harmonic oscillator, angular momentum, and the hydrogen atom. Introduces linear algebra for describing quantum physics and uses techniques for solving differential equations. Prerequisite: PHYS 231.

PHYS 331 Advanced Laboratory I (2)
A course in experiment design and technique. Laboratory investigations provide experience in instrumental methods, planning of laboratory experiments, data analysis, preparation of reports according to professional standards, and training in the use of computers for data acquisition and processing. The experiments to be performed are selected from electromagnetism, atomic, nuclear, and solid-state physics. Prerequisite: PHYS 252.

PHYS 342 Advanced Dynamics (3)
In-depth survey of classical mechanics. Includes Newtonian dynamics, conservation laws, oscillating systems, gravitation, the Lagrangian and Hamiltonian formulations of mechanics, orbital and central force motion, systems of particles, non-inertial reference frames, rigid bodies, coupled oscillations, and waves on a string. Prerequisites: PHYS 230 and MATH 260.

PHYS 352 History and Philosophy of Physics (3)
Material varies from year-to-year. The course addresses problems in the interpretation and development of physics. Case studies of crucial experiments are analyzed. The interaction of physics with other philosophical and cultural pursuits is discussed. Prerequisite: one year of physics or consent of instructor.

PHYS 362 Statistical and Thermal Physics (3)
Study of the physics of bulk matter. Fundamental principles of quantum mechanics, statistical methods employed to explain macroscopic laws of thermodynamics to make detailed predictions about the large-scale behavior of solids, liquids, and gases. Applications: specific heat of solids, thermal radiation, magnetic susceptibilities, stellar equilibrium, and chemical reactions. Prerequisites: PHYS 230, PHYS 231, and MATH 260.

PHYS 395 Independent Study (1-3)

PHYS 396 Topics (1-3)

PHYS 422 Quantum Theory II (3)
Continuation of PHYS 321. Central forces, complete derivation of hydrogen atom energy levels and eigenstates. Perturbation theory and other approximately techniques. Other selected topics include: multiple quantum systems, scattering, quantum foundations. Prerequisite: PHYS 321.

PHYS 432 Nuclear and High-Energy Physics (3)
An introduction to the structure and interactions of nuclear and subnuclear particles. Topics include a survey of the intrinsic properties of nuclei, descriptions of various nuclear models, studies of radioactivity and nuclear reactions, and an overview of the technologies of high-energy accelerators and detectors. The course concludes with an introduction to the properties and structures of elementary particles and discussions of current developments in unified theories of force. Prerequisite: PHYS 322.

PHYS 441 Solid State Physics (3)
The structure and properties of solids. This course is a study of the crystalline state of matter, including crystal classifications, vibrational specific heats, electronic structures and conductivities, cohesive energies, magnetic susceptibility, and optical properties. Prerequisite: PHYS 321.

PHYS 471 Computational Physics I (3)
A foundation course in Computational Physics which requires skills of both theoretical and experimental physics. This is a modern field in which computers are used to solve physics problems whose complexity places them beyond analytic solution. Topics discussed include Fitting and Experimental Spectrum, Random Walk Simulation, Monte Carlo Applications to Radioactive Decay, Quantum Eigenvalues, Particle in a Box. Prerequisites: CSCI 112, PHYS 231. Corequisite: MATH 369

PHYS 472 Computational Physics II (3)
A continuation of PHYS 471. Computers are used to solve more complex problems in physics. Topics include anharmonic oscillations, nonlinear systems, matrix computing, kspace Schrodinger equation, quantum scattering in k-space, thermodynamic simulations, the Ising Model, electrostatic potentials. Prerequisites: PHYS 321, PHYS 471.

PHYS 473 Modern Optics (3)
Modern principles and applications of optics. Models for light are reviewed and extended. Interferometry and coherence theory are studied. The Fourier transform description of images is introduced and optical systems analyzed. Diffraction theory is used in a number of applications. Anisotropic media and polarization phenomena are studied. Radiometry, light sources, and

optical detectors are discussed. The course concludes with an introduction to quantum optics and a survey of optical processes in semiconductors. Prerequisite: PHYS 321.

PHYS 482 Senior Research (1)
An individual research project, supervised by a faculty advisor. The project may be selected from experimental or theoretical topics. The research concludes with a formal report written in accordance with The American Institute of Physics Style Manual. This course is normally taken twice in the senior year.

PHYS 487 Structured Research (1-3)
Physics research under the direct guidance of a faculty member. Designed for advanced junior and senior level students. Prerequisite: permission of instructor.

PHYS 494 Seminar (1)
A forum for topical physics. In this seminar, faculty and students of physics participate in both informal discussions and formal oral presentations of selected topics of scientific interest, including significant current advances and crucial historical developments. The course may be repeated for a maximum of four semester hours of credit. Prerequisite: upper division standing and consent of instructor.

PHYS 495 Independent Study (1-3)

PHYS 496 Topics (1-3)

PHYS 596 Topics: (1-3)

POLITICAL SCIENCE (POLS)

✓ **POLS 101 American Government-GTSS1 (3)**
Structures and functions of the American political system and the constitutional development of federalism and separation of powers. Also, citizen participation and influence in politics, the congress, presidency and the supreme court, and public policy including civil rights and liberties.

POLS 201 Introduction to Politics (3)
Introduction to major questions and tools of investigation in the study of politics. Examination of classical political theorists and modern scientific methods. Additional emphasis on tracing the evolution of the discipline. Prerequisite: POLS 101, must be taken within first 60 credit hours.

POLS 236 State and Local Government (3)
Theories of state formation and constitutional development, city charters, county government, and intergovernmental relations with emphasis on Colorado.

✓ **POLS 261 Comparative Politics-GTSS1 (3)**
Introduction to conceptual models and approaches utilized in the comparative study of nations and their politics. Application of these theories to selected democratic, communist, and developing political systems.

POLS 324 The Legislative Process (3)
A study of the legislative process emphasizing the U.S. Congress. Attention will be given to the development of legislative systems, the operation of legislatures, the election of legislators, and a comparison with legislatures in other national states. Prerequisites: POLS 101 or consent of instructor.

POLS 325 The American Presidency (3)
A study of the American chief executive, emphasizing the historical development of the office, the various functions of the modern chief executive and a brief comparison with the executive officer of other national states.

POLS 328 The American Court System (3)
The American court system; local, state, and national, including consideration of the impact of prosecutors, defense personnel, judges, and other factors on court decisions and the criminal justice system. Prerequisites: POLS 101 or CRMJ 201.

POLS 342 Public Administration (3)
Historical development of public administration including organizational structure and theory, management, personnel administration, fiscal administration, and administrative responsibility.

POLS 351 Public and Elite Political Behavior (3)
Behavior of elected officials and the public in American politics. Achievement of power and how actions are evaluated via public opinion and voting. Role of media in American politics explored. Prerequisite: POLS 101.

POLS 352 Religion and Politics (3)
The interactions of religion and politics in the United States, several liberal democracies and within international relations.

POLS 365 European Government and Politics (3)
Study of the political systems of Great Britain, France, Federal Republic of Germany, Russia and other European nations. Emphasized political development, the sources, processes and evaluation of policy making, and contemporary challenges facing these countries. Prerequisites: POLS 261 or HIST 102.

POLS 370 World Politics (3)
Introduction to the structures, processes, and behaviors shaping the world political configuration. Emphasis on states and their interactions as well as non-state actors and the cultural, economic and environmental forces, issues, and resources influencing an emerging world community.

POLS 395 Independent Study (1-3)

POLS 396 Topics (1-3)

POLS 412 Constitutional Law (3)
An analysis of American constitutional theory as articulated by the U. S. Supreme Court. Specific topics include the nature of judicial review, the powers of the President and Congress, federalism, the regulation of commerce and the development of substantive due process. Prerequisite: POLS 101 or consent of instructor.

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POLS 452 Political Theory: Classical and Medieval (3)
POLS 453 Political Theory: Modern (3)
Study of the development of political theory in the Western tradition. Emphasizes the teaching of main thinkers: Socrates, Plato, Aristotle, Augustine, Aquinas, More, Machiavelli, Hobbes, Locke, Rousseau, Mill, and Marx. Develops ideas in relation to historical and cultural contexts, textual consistency, and the evolving tradition of political discourse in Western civilization.

POLS 475 American Foreign and National Security Policy (3)
American foreign and national security policy with emphasis on 1945 to the present and beyond. Foreign and domestic factors shaping policy, the mechanisms and dynamics of policy making, the role of perception and motives underlying decision and action, and case studies of historical crises and contemporary debates are examined.

POLS 488 Environmental Politics and Policy (3)
An introduction to the political issues and problems associated with patterns of socio-economic growth and its environmental impact at both domestic and global levels of analysis.

POLS 490 Senior Seminar for Political Science (3)
Arranged tutorials and seminars with political science faculty and students, design and execution of a research project, and submission of a senior thesis. Prerequisites: POLS 201 and senior standing.

POLS 495 Independent Study (1-3)

POLS 496 Topics (1-3)

POLS 499 Internship (1-15)
May be performed in areas relating to Political Science, such as civic, political, or legal. Internships will be conducted in Mesa County, the Denver legislature, or in Washington, D.C. Prerequisites: junior or senior standing.

PROCESS TECHNOLOGY (PROS)

PROS 100 Introduction to Process Technology (3)
Provides an overview or introduction into the field of Process Operations within the process industry. The course will introduce the roles and responsibilities of process technicians, the environment in which they work, and the equipment and systems in which they operate.

PROS 110 Safety, Health, and Environment (3)
Provides an introduction to the field of safety, health, and environmental concerns within the process industry. Within this course, you will be introduced to various types of plant hazards, safety and environmental systems and equipment, and the regulations under which processing plants are governed.

PROS 117 DC Circuits (3)
Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

PROS 118 AC Circuits (3)
Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and application of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

PROS 120 Process Technology I: Equipment (4)
Provides an overview or introduction into the field of equipment within the process industry. This course will introduce many process industry-related equipment concepts including purpose, components, operation, and the Process Technician's role for operating and troubleshooting the equipment.

PROS 130 Instrumentation (3)
Provides an introduction to the field of instrumentation and covers process variables and the various instruments used to sense, measure, transmit and control these variables. This course also introduces control loops and the elements that are found in different types of loops, such as controllers, regulators and final control elements. The course concludes with a study of instrumentation drawings and diagrams and a unit on troubleshooting instrumentation.

PROS 196 Topics: (1-3)

PROS 210 Process Technology II: Systems (4)
Studies the interrelationship of process equipment and process systems: arranging process equipment into basic systems; describing the purpose and function of specific process systems; explaining how factors affecting process systems are controlled under normal conditions; and recognizing abnormal process conditions. In addition, it introduces the concept of system and plant economics.

PROS 220 Process Technology III: Operations (4)
Provides an introduction to the field of operations within the process industry. Students will use existing knowledge of equipment, systems, and instrumentation to understand the operation of an entire unit. Students study concepts related to commissioning, normal startup, normal operations, normal shutdown, turnarounds, and abnormal situations, as well as the Process Technician's role in performing the tasks associated with these concepts within an operating unit.

PROS 230 Quality in Process Technology (3)
Provides an introduction to the field of Quality within the Process Industry. This course will introduce many process industry-related quality concepts including operating consistency, continuous improvement, plant economics, team skills and statistical process control (SPC).

PROS 292 Capstone (4)
Knowledge to articulate the tactical planning functions performed within field projects. Access and apply the

various tactical planning tools and data elements to supporting documentation including troubleshooting. Economic principles in costing, value, capital investment, profitability and inventory.

PSYCHOLOGY (PSYC)

✓ **PSYC 150 General Psychology-GTSS3 (3)**
Examines the fundamental principles of psychology.

PSYC 200 Psychology of Human Adjustment (3)
Problems of mental health and the strategies useful in the pursuit of effective living in today's society. Introduces abnormal psychology, emphasizing prevention of serious problems through understanding change and growth in the modern world.

PSYC 201 Orientation to the Psychology Major (3)
Foundations for further study in psychology. Education and career planning. Basic information competence and writing skills, including APA writing format. Basic descriptive statistics, data reporting and graphic representation. Importance of research. Applying to graduate school. Prerequisites: PSYC 150 and ENGL 112.

PSYC 216 Research Methods in Psychology (3)
PSYC 216L Research Methods Laboratory (1)
Designing, conducting, and reporting psychological investigations. Experimental, non-experimental, and quasi-experimental methods examined. Research project and presentation of results in APA style. Prerequisites: PSYC 150, STAT 215, and PSYC 201.

PSYC 233 Human Growth and Development-GTSS3 (3)
Developmental principles, ages and stages of the life span, and adjustment techniques. Not intended for behavioral science majors.

PSYC 296 Topics (1-3)

PSYC 310 Child Psychology (3)
A study of the principles of human development and psychology from conception to puberty. Prerequisites: PSYC 150.

PSYC 314 Psychology Of Learning (3)
Classic and modern explanations of the phenomena of learning in both lower animals and humans. Classical and operant conditioning covered in detail. Prerequisites: Junior or senior status; PSYC 201; STAT 215, PSYC 216/216L recommended.

PSYC 320 Social Psychology (3)
Social influences upon behavior with consideration given to topics such as: social perception, attitude formation and change, communication, and leadership. Prerequisites: PSYC 150.

PSYC 325 Environmental Psychology (3)
Presentation and discussion of ways in which psychology can redefine and help solve some current environmental problems. Prerequisites: PSYC 150 or consent of instructor.

PSYC 330 Psychology of Adolescents and Emerging Adulthood (3)
Study of principles of human development (biological, cognitive, and social/emotional) from puberty through emerging adulthood.

PSYC 332 Individual and Group Differences (3)
The ways and extent to which individuals and groups differ from one another and of the factors responsible for those differences. Prerequisite: PSYC 150.

PSYC 335 Psychology of Women (3)
A brief account of the role of women in mythology and history will be followed by coverage of women's heritage in psychology. Then gender specific aspects of physical, psychological and social development will be covered. Current areas of interest will be included, e.g., communication, work related issues, relationships. Prerequisites: PSYC 150.

PSYC 340 Abnormal Psychology (3)
Concepts related to psychopathology and personality disorders including functional causation, general psychological theory, and behavior deviation patterns. Prerequisite: PSYC 150, or consent of instructor.

PSYC 350 Psychology Of Adulthood (3)
Study of principles of human development (biological, cognitive, and social/emotional) from the latter part of young adulthood through late adulthood. Prerequisite: PSYC 150.

PSYC 370 Cross-Cultural Psychology (3)
Survey of theory and methods in cross-cultural psychology. Prerequisite: PSYC 150.

PSYC 380 Comparative Psychology (3)
Study of animal behavior. Topics will include communication, learning, memory, intelligence and social behavior in various animal populations. Prerequisite: PSYC 150.

PSYC 395 Independent Study (1-3)

PSYC 396 Topics (1-3)

PSYC 400 Psychological Testing (3)
Theory, problems, methods, and content of psychological measurement, including concepts of the purpose of testing, test administration and scoring, standardization, reliability, validity test evaluation, and a survey of the major tests used in educational and psychological testing. Prerequisites: PSYC 150 and STAT 200.

PSYC 401 Sport Psychology (3)
Introduction to theories and research in Sport Psychology. Includes aggression and violence in sport, psychological characteristics of participants, sexual identity and motivation. Prerequisites: PSYC 150 and one other upper division psychology course.

PSYC 410 Drugs and Human Behavior (3)
Study of pharmacological effects and behavioral consequences of self-administered depressants, stimulants, and euphoriants, of marijuana, alcohol and tobacco, and of medicines. Prevention of drug-related problems is considered briefly. Prerequisite: PSYC 150.

PSYC 412 Industrial and Organizational Psychology (3)
Psychological principles applied to formal, productive organizations such as businesses, governments, and schools. Personnel selection, placement, training,

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evaluation, motivation to work, job satisfaction, and morale are examined. Counts as a management course for BBA candidates. Prerequisites: PSYC 150, or consent of instructor.

PSYC 414 History of Psychology (3)
Systems and theories of modern psychology and the development of scientific psychology since 1879.

PSYC 416 Memory And Cognition (3)
Study of the mental processes that underlie our abilities to recognize stimuli, think, remember, learn language, and solve problems. Current research in each of these areas will be discussed. Includes a research paper written in APA style. Prerequisite: PSYC 150.

PSYC 420 Personality (3)
Examination of personality psychology from the time of Freud through the present. Theories and various approaches to understanding the development and functioning of both the general and the unique in personality are emphasized. Prerequisite: PSYC 150, recommend PSYC 400.

PSYC 422 Sensation and Perception (3)
Study of the human senses, especially vision and hearing, and of people's meaningful organization of sensory information. Prerequisites: PSYC 150, or consent of instructor.

PSYC 425 Forensic Psychology (3)
Introduction to the production and application of psychological knowledge to the civil and criminal justice systems. Prerequisite: PSYC 150, or consent of instructor.

PSYC 430 Biopsychology (3)
The biological bases of the behaviors of the organism, emphasizing the structure and function of the nervous system. The role of biological factors in such behaviors as sleep, sexual behavior, drug addiction, emotion, etc. will be examined. Prerequisites: PSYC 201 (recommended) and a biology course (recommended).

PSYC 495 Independent Study (1-3)

PSYC 496 Topics (1-3)

PSYCHOLOGY: COUNSELING (PSYP)

PSYP 320 Career Development (3)
Theories of, and factors influencing, career development such as assessment, career maturity, decision making, problem solving, and planning. Current developments in adult career and life development will be discussed including life stages, transitions, midlife crisis, stress, and adjustments necessary for career development effectiveness. Prerequisites: PSYC 150 or consent of instructor.

PSYP 324 Career Counseling (3)
Types and sources of career information and its various uses in career counseling with special emphasis on decision making theories and processes. Prerequisites: PSYC 150 or consent of instructor.

PSYP 396 Topics (1-3)

PSYP 410 Introduction to Marriage and Family Counseling (3)
Key theories and approaches for diverse problem areas in Marriage and Family Counseling, including domestic violence and substance abuse. Explore career options and training for counselors. Prerequisite: PSYC 150 or SOCO 144.

PSYP 420 Counseling Processes and Techniques (3)
Counseling principles and practices which facilitate interpersonal communication and effective personal and social development. Counseling skills in attending behavior, listening, problem exploration, responding, understanding, and modes of action are examined, discussed and applied in classroom counseling situations. Prerequisites: PSYC 150 or 340; or consent of instructor.

PSYP 422 Psychological Interviewing (3)
Psychological interviewing techniques, methods, and interpretation will be examined using the DSM-IV. Interview types will include counseling, intake, assessment, and diagnosis. Prerequisites: PSYC 150, 340 and 400.

PSYP 424 Group Processes (3)
Dynamics, procedures and processes of the group. Focus will be on understanding self and learning how to help others develop self-understanding as well as personal and social skill. Prerequisites: PSYP 420.

PSYP 496 Topics (1-3)

PSYP 497 Practicum I (4)
Interpersonal training and counseling practice under professional supervision. A typed paper/journal must be submitted for approval and course credit. Prerequisite: senior status and consent of instructor. Practicum must be arranged for the semester prior to enrollment.

PSYP 499 Practicum II (4)
Counseling experience in external field locations according to needs and career goals of the student. A typed paper/journal must be submitted for approval and course credit. Prerequisite: consent of instructor. Internship must be arranged for the semester prior to enrollment.

PUBLIC ADMINISTRATION (PADM)

PADM 314 Public Organization Theory (3)
Examination of the historical development of organizational theory. Focuses on various theoretical approaches to the study of organizational structure and human behavior in public sector organizations. Prerequisite: POLS 101 or consent of instructor.

PADM 315 Public Management (3)
Exploration of the concepts and skills essential to successful management in public organizations. Focuses on the management functions critical for success of the organization and how these functions are affected by operating in the public sector. Prerequisite: POLS 101 or consent of instructor.

PADM 442 Public Budgeting (3)
Examines the principles and practices of resource allocation and the role of the budget in policy development and implementation focusing primarily on state and local government. Focuses on the relationship of the budget to strategic planning, policy implementation and performance measures. Prerequisite: POLS 101 or consent of instructor.

PADM 446 Public Personnel Management (3)
Examination of the major issues and components of public personnel systems. Special focus will be placed on the role of the first line government supervisor or middle manager in all facets of personnel administration. Prerequisite: POLS 101 or consent of instructor.

RADIOLOGIC TECHNOLOGY (RTEC)

RTEC 114 Radiographic Clinical Experience I (2)
Introduces the clinical education experience in both the laboratory and at the clinical education center. This course is divided into two eight-week sessions. The first portion will be spent in the Autotutorial Laboratory on campus and the second portion will be spent at an assigned clinical education site. Corequisites: RTEC 121, 121L, 122, 122L, 120, 123. Prerequisites: BIOL 209, 209L, acceptance into the Radiologic Technology Program.

RTEC 120 Introduction to Radiologic Technology and Patient Care (3)
Introduction to radiologic technology with emphasis on the education program, the profession, and the health-care delivery system. Fundamentals of patient care including ethics, professional conduct, communication, radiation protection and patient management. Study of medical terminology is included. Corequisites: RTEC 114, 121, 121L, 122, 122L, and 123. Prerequisites: BIOL 209, 209L, acceptance into the Radiologic Technology program.

RTEC 121 Radiographic Anatomy and Positioning I (2)
RTEC 121L Radiographic Anatomy and Positioning I Laboratory (1)
Instruction in every phase of radiography in an integrated coverage of appendicular skeletal system, abdomen, thoracic viscera and body systems. Radiographic anatomy and positioning are discussed and applied in the energized laboratory. Corequisites: RTEC 114, 120, 122, 122L, and 123. Prerequisites: BIOL 209, 209L, acceptance into the Radiologic Technology program.

RTEC 122 Principles of Radiographic Exposure (2)
RTEC 122L Principles of Radiographic Exposure Laboratory (1)
Fundamental factors which govern and influence the radiographic image including equipment, accessory devices, exposure mathematics, and processing. Technical and prime exposure factors are discussed and applied in the energized laboratory. Corequisites: RTEC 114, 120, 121, 121L, and 123. Prerequisites: BIOL 209, 209L, acceptance into the Radiologic Technology program.

RTEC 123 Digital Imaging (2)
Explore components, principles, and operation of digital imaging systems found in diagnostic radiology. Factors affecting image acquisition, display, archiving, and retrieval discussed. Prerequisites: Admission to the Program and BIOL 209/209L. Corequisites: RTEC 114, 120, 121, 121L, 122, and 122L.

RTEC 124 Radiographic Clinical Experience II (4)
Continues clinical education and introduces additional concepts correlating skills with academic courses. Includes one hour a week of film critique provided by the clinical instructor. Corequisites: RTEC 131, 131L, 133, 133L, 135. Prerequisite: RTEC 114 or consent of the instructor.

RTEC 131 Radiographic Anatomy and Positioning II (2)
RTEC 131L Radiographic Anatomy and Positioning II Laboratory (1)
Continuation of RTEC 121 with instruction in every phase of radiography of the axial skeleton, digestive system, urinary system, cranium, spinal column and facial bones. Corequisites: RTEC 124, 133, 133L and 135. Prerequisites: RTEC 120, 121, 121L, 122, 122L, and 123.

RTEC 133 Imaging Equipment (2)
RTEC 133L Imaging Equipment Lab (1)
Study of radiographic, fluoroscopic, mobile, and tomographic equipment requirements and design. Applied practice of equipment maintenance and quality control and testing performed in lab. Prerequisites: RTEC 120, 121, 121L, 122, 122L, and 123. Corequisites: RTEC 124, 131, 131L, 133, 135.

RTEC 135 Radiation Biology and Protection (2)
Principles or radiation interaction in cells and the effect and factors affecting cell response to radiation, acute and chronic effects or radiation, dose equivalent limits, and regulatory involvement. Responsibility by the radiographer to patients, personnel, the public and self are also discussed. Corequisites: RTEC 124, 131, 131L, 133, 133L. Prerequisites: RTEC 120, 121,121L, 122, 122L, 123.

RTEC 214 Radiographic Clinical Experience III (6)
Continues clinical education and introduces additional concepts correlating skills with academic courses. Includes film critique provided by the clinical instructor. Prerequisite: completion of all 100 level radiologic technology courses or permission of the instructor.

RTEC 224 Radiographic Clinical Experience IV (8)
Continues clinical education and introduces additional concepts correlating skills with academic courses. Corequisites: RTEC 251, 255. Prerequisite: RTEC 214 or consent of the instructor.

RTEC 234 Radiographic Clinical Experience V (8)
Continues clinical education and introduces additional concepts correlating skills with academic courses. Corequisites: RTEC 261, 265. Prerequisites: RTEC 224, 251, 255 or consent of instructor.

RTEC 251 Radiographic Pathology (3)
Radiographic and advanced modality equipment, radiographic anatomy and pathology involved in specialized and highly technical procedures. Contrast media, pharmacology and venipuncture are also covered. Corequisites: RTEC 224, 255. Prerequisite: All RTEC 100 level courses.

RTEC 255 Radiographic Assessment I (1)
Radiographic film quality critique and patient care assessment. Utilizes previous knowledge of film quality factors and patient care techniques as well as an understanding of pathology demonstrated on radiographs.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

Corequisites: RTEC 224, 251. Prerequisite: all RTEC 100 level courses, RTEC 214 or consent of instructor.

RTEC 261 Radiographic Review (3)
Departmental administrations, radiologic records and job seeking skills are discussed. The major portion of this course is devoted to compiling a portfolio of radiographic fundamentals in all aspects of the program; and reviewing in preparation for the national registry examination. Corequisite: RTEC 234, 265. Prerequisites: All RTEC 100 level courses and RTEC 224, 251 and 255.

RTEC 265 Radiographic Assessment II (1)
Continuation of RTEC 255. Radiographic film quality critique and patient care assessment. Corequisites: RTEC 234, 261. Prerequisites: RTEC 214, 224, 251, 255 or consent of instructor.

RTEC 320 Informatics in Radiologic Science (2)
Technical, organizational, and cost-benefit issues related to health care information systems. Includes decision making in radiology, integrated networking and distributed computing technologies. Confidentiality issues with patient records discussed.

RTEC 325 Cross-Sectional Anatomy I (2)
Critical ability to locate and identify structures in the axial (transverse), sagittal, coronal and orthogonal (oblique) planes. Volumetric data sets and three-dimensional reconstruction of body structures. This section will focus on the head, neck, chest, and thorax.

RTEC 327 Cross Sectional Anatomy II (2)
Continuation of RTEC 325. Includes study of the abdomen, extremities and joints, pelvis and whole body imaging. Prerequisite: RTEC 325.

RTEC 365 Advanced Patient Care (3)
Skills required to handle patients with acute and chronic disabilities in the advanced technology areas. Includes an understanding of multiskilled areas such as EKG, pharmacology, venipuncture and phlebotomy. Medical and legal implications as well as patient well being discussed. Sterile technique related to cardiovascular procedures and biopsy also studied.

RTEC 450 Specialization: Mammography I (2)
Study of mammography pertaining to diagnostic imaging. Topics include principles, physics, image reconstruction, equipment, and image quality.

RTEC 452 Specialization: C/V Interventional Technology I (2)
Study of cardiac or vascular interventional technology pertaining to diagnostic imaging. Topics include principles, physics, image reconstruction, equipment, image quality.

RTEC 454 Specialization: Computed Tomography I (2)
Study of computed tomography pertaining to diagnostic imaging. Topics include principles, physics, image reconstruction, equipment and image quality.

RTEC 456 Specialization: Magnetic Resonance I (2)
Study of magnetic resonance imaging pertaining to diagnostic imaging. Topics include principles, physics, image reconstruction, equipment and image quality.

RTEC 460 Quality Management and Health Care Law (3)
Expansion of the QM skills of technologists to include digital imaging systems and the application of QM principles in an imaging department. Legal and compliance issues affecting employees and employers directly regarding accreditation and compliance issues studied. Guidance on risk management techniques including reporting that can help mitigate non-compliance included. Prerequisite: RTEC 320.

RTEC 470 Specialization: Mammography II (3)
Continuation of RTEC 450. Topics include radiation dose, specialized techniques, diagnostic applications and patient care. Prerequisite: RTEC 450.

RTEC 472 Specialization: C/V Interventional Technology II (3)
Study of cardiac or vascular interventional technology pertaining to diagnostic imaging. Topics include materials, patient care, specialized procedures and diagnostic applications. Prerequisite: RTEC 452

RTEC 474 Specialization: Computed Tomography II (3)
Continuation of RTEC 454. Topics include radiation dose, specialized techniques, diagnostic applications, pathology and patient care. Prerequisite: RTEC 454.

RTEC 476 Specialization: Magnetic Resonance II (3)
Continuation of RTEC 456. Topics include specialized techniques, diagnostic applications, pathology and patient care. Prerequisite: RTEC 456.

RTEC 480 Clinical Specialization I (3)
Demonstration of clinical competency in Radiologic Technology specialty areas. Practical experience gained and demonstrations of competency in positioning, machine control, patient care and image quality in chosen specialty. Prerequisites: RTEC 450, 452, 454, and 456.

RTEC 490 Clinical Specialization II (3)
Demonstration of clinical competency in the Radiologic Science specialty areas. Practical experience gained and demonstrations of competency in the areas of positioning, machine control, patient care and image quality in the specialty area chosen. Prerequisite: RTEC 450, RTEC 452, RTEC 454, or RTEC 456.

RTEC 494 Capstone in Radiologic Science (3)
Mastery of a specialization area with proof of competency and preparation for national certification examinations in the specialization included. Study and practical application of research knowledge base is included. Prerequisite: All B.A.S. Radiologic Technology courses.

RTEC 495 Independent Study (1-3)

READING (READ)

READ 030 Basic Reading (2)
Focuses on strategies for word attack, vocabulary development, stages of reading and basic reading comprehension. Prerequisite: Accuplacer score below 40.

READ 060 Foundations of Reading (3)
Focuses on strategies for vocabulary development, improved reading comprehension, and enrichment. Prerequisites: READ 030 or Accuplacer score from 40 to 61.

READ 090 College Preparatory Reading (3)
Introduction to strategies necessary for college level content reading. Includes how to read textbooks more effectively, locate main ideas and supporting details, develop literal and critical comprehension, and improve vocabulary development. Emphasizes applying these strategies to content area courses. Prerequisites: READ 060 or Accuplacer score from 62 to 79.

REAL ESTATE BROKER (REEB)

REEB 201 Real Estate Broker I (6)
Taught in conjunction with REEB 202 - Real Estate Brokers II, to meet the educational requirements of the Colorado Real Estate Commission for a Colorado Real Estate Broker's license. Includes Real Estate Law and Practice, practical applications, and Current Legal Issues.

REEB 202 Real Estate Broker II (6)
Taught in conjunction with REEB 201 - Real Estate Broker I, to meet the educational requirements of the Colorado Real Estate Commission for a Colorado Real Estate Broker's License. Includes Colorado Contracts and Regulations, Closings, and Recordkeeping and Trust Accounts. Prerequisite: REEB 201.

SOCIAL SCIENCE (SOCI)

SOCI 110 simThinking: Modeling the Social and Natural World (6)
Students study the uses of modeling as a foundational part of all sciences. simThinking is organized around the course's guiding principle of using models to understand the fundamentals of complex adaptive systems in the social, natural, and physical world. Using the tools of agent-based modeling, students examine systems "from the bottom up" by identifying the component parts of a system and discovering the rules of interaction between component parts (agents) and their emergent properties. The class is interdisciplinary, team-taught, and technologically-enriched. Students learn academic content through a series of projects, and develop strong critical thinking and teamwork skills.

SOCI 121 Americorps Field Placement I (3)
Exploration of the practice and theory of community service. Prerequisites: enrollment in a national Service Program, approval of AmeriCorps Directors.

SOCI 136 The African-American Experience (3)
An introduction to the experience of African-Americans from the perspective of the Social Science disciplines.

SOCI 196 Topics (1-6)

SOCI 296 Topics (1-3)

SOCI 340 Methods of Teaching Social Studies: Secondary Schools (4)
Examination and comparison of the social studies, exploring both new and traditional curricula, philosophies, and teaching methods. 75 hours of field work required. Prerequisites: upper division status and 21 semester hours of social sciences.

SOCI 395 Independent Study (1-3)

SOCI 396 Topics (1-3)

SOCI 495 Independent Study (1-3)

SOCI 496 Topics (1-3)

SOCI 497 Structured Research (1-3)
Social or behavioral science research under the directed guidance of a faculty member. Designed for junior and senior level students.

SOCIOLOGY (SOCO)

✓ **SOCO 144 Marriage and Families-GTSS3 (3)**
Marriage and families in social, historic, institutional, theoretical, and gendered contexts. Includes family formation, family problems, and alternative intimate relationships.

✓ **SOCO 260 General Sociology-GTSS3 (3)**
An overview of sociological concepts, terminology, basic principles, and important theories; introduction to substantive areas of the field.

✓ **SOCO 264 Social Problems-GTSS3 (3)**
Major contemporary social problems including crime, race relations, war, educational systems, unequal distribution of wealth, and political apathy.

SOCO 296 Topics (1-3)

SOCO 300 Political Sociology (3)
The interactions and interrelationships between social and political forces. Topics covered include state and society, the social bases of power, ideology, and the media. Prerequisite: SOCO 260, or POLS 101 or consent of instructor.

SOCO 301 Introduction to Human Services (3)
The interactions and interrelationships between social and political forces. Topics covered include state and society, the social bases of power, ideology, and the media. Prerequisite: SOCO 260, or SOCO 264 or consent of instructor.

SOCO 303 Sociological Research Methods (3)
Sociology specific. Emphasis on survey research, comparative/historical research, content analysis, and program evaluation. Prerequisites: SOCO 202 and STAT 215.

SOCO 310 Sociology of Religion (3)
Sociological aspects of religion, including the social function of religion, religious traditions in the global village, and the rise of new religious movements. Prerequisite: SOCO 260 or consent of instructor.

SOCO 312 Social Movements (3)
Sociological study of historical and contemporary social movements. Overview of the literature on social

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movement development, organization, participation and outcomes. Prerequisite: SOCO 260 or consent of instructor.

SOCO 314 Population (3)
Basic concepts of population studies in international context. Demographic trends including fertility, mortality and migration, as well as the causes and consequences of those trends. Prerequisites: SOCO 260 or consent of instructor.

SOCO 316 Social Inequality (3)
Causes and effects of inequality, especially social class, with consideration of race and gender. Prerequisites: SOCO 260, or SOCO 264 or consent of instructor.

SOCO 320 Life Course Sociology (3)
Investigation of the social factors influencing human lives, emphasizing the connection between individual lives and social change. Prerequisites: SOCO 144 or SOCO 260 or consent of instructor.

SOCO 325 Racial and Ethnic Relations (3)
Sociological perspectives on racial and ethnic relations in the United States. Prerequisites: SOCO 260 or consent of instructor.

SOCO 350 Sociology of Death and Dying (3)
A critical review of concepts and findings of social scientists and a semi-scientific review of literature dealing with death. Prerequisite: SOCO 260 or SOCO 264 or consent of instructor.

SOCO 360 Social Influences of Small Groups (3)
Small-group processes in schools, peer groups, industry, and other selected institutions; small groups as related to the larger social system; group structure, communications, and the dynamics of social interaction.

SOCO 395 Independent Study (1-3)

SOCO 396 Topics (1-3)

SOCO 400 Classical Social Theory (3)
The development of social theory from the Enlightenment through early twentieth century, with emphasis on Marx, Weber, and Durkheim. Prerequisite: SOCO 260 or consent of instructor.

SOCO 410 Contemporary Social Theory (3)
Twentieth century sociological theories and their historical links to classical thought. Prerequisite: SOCO 400.

SOCO 495 Independent Study (1-3)

SOCO 496 Topics (1-3)

SOCO 499 Internship (4)

SOCIAL WORK (SOWK)

SOWK 150 Introduction to Social Work (3)
Introduction to the profession of social work and its historical development; overview of the knowledge, values, skills, practice settings and groups served by social workers.

SOWK 296 Topics: (1-3)

SOWK 330 Social Work for Diverse Populations (3)
Knowledge and skills necessary for social work practice with diverse populations.

SPEECH (SPCH)

SPCH 101 Interpersonal Communications (3)
Language, listening, response, defense of statement, and nonverbal communication between two or more people.

SPCH 102 Speechmaking (3)
The preparation, organization, and delivery of a speech.

SPCH 112 Voice and Diction (3)
The use of the speaking voice emphasizing voice placement, speech sounds, breath control, projection, and the phonetic alphabet. Recommended for theatre majors, teachers, prelaw, ministers and business majors.

SPCH 196 Topics (1-3)

SPCH 203 Persuasion (3)
Open discussions on the ethics, process, and application of everyday use of persuasion; how it applies to our advertisements, politics, and friendships; preparation for debate. Prerequisite: SPCH 102.

SPCH 241 Oral Interpretation (3)
The reading aloud of prose, poetry, and essays with the intention of conveying the author's ideas to a listening audience.

SPCH 296 Topics (1-3)

SPCH 303 Nonverbal Communication (3)
The opportunity to observe, record and interpret the nonverbal dimensions of communication behavior and the opportunity to enhance awareness and skill in nonverbal communication behavior in mass media, law, theatre, group dynamics, etc.

SPCH 304 Communication and Conflict (3)
The nature of conflict, conflict structure, conflict styles, and the use of power in conflicts. Application of theories to analyze and set goals to plan strategies and tactics. Study of intervention principles and practices. Prerequisites: upper division standing.

SPCH 305 Communication: Culture, Diversity and Gender (3)
Research and practical application to facilitate constructive relationships with individuals from other countries, with individuals from sub-cultures within our culture, and with individuals of the opposite sex. Prerequisite: SPCH 101.

SPCH 306 Communication and Leadership (3)
Study of communication styles of great leaders from every field of endeavor to determine the sources of their influence over the behaviors, thoughts, and feelings of their followers. Included will be study of the historical environments that gave rise to each leader's style. Prerequisite: SPCH 101.

SPCH 308 Argumentation and Debate (3)
Research and development of various types of debate such as student congress, mock trial, value debate, etc., using national and international topics of current interest. Prerequisites: SPCH 102 or SPCH 203 or consent of instructor.

SPCH 395 Independent Study (1-3)

SPCH 396 Topics (1-3)

SPCH 495 Independent Study (1-3)

SPCH 496 Topics (1-3)

STATISTICS (STAT)

✓ **STAT 200 Probability and Statistics-GTMA1 (3)**
Descriptive statistical methods, elementary probability, sample distribution, binomial, normal, t, and F distributions, parameter estimation, one and two sample tests of hypothesis, simple correlation and regression analysis, one-way analysis of variance, nonparametric inference, time permitting. Introduction to statistical software. Prerequisites: MATH 110 or 113 or consent of instructor.

STAT 215 Statistics for Social and Behavioral Sciences (4)
Descriptive and inferential statistical techniques within the Social and Behavioral Science realm. Topics include: Types of Random Variables, Studies, and Sampling Methods; Plots and Descriptive Statistics; Correlation and Regression; Probability Theory; Hypothesis Testing & Inference including one and two sample t-tests, Chi-Squared Test for Independence, One and Two Factor ANOVA, t-test for Linear Regression Co-variates. SPSS will be used for data analysis. Prerequisites: MATH 110 or higher, and PSYC 150 or SOCO 260 or CRMJ 201 or POLS 101.

STAT 311 Statistical Methods (3)
Power of statistical tests, categorical data techniques, inference about population means and variances, nonparametric methods, simple and multiple linear regression and correlation, analysis of variance, multiple comparisons, introduction to some experimental designs. Use of statistical software. Prerequisites: STAT 200.

STAT 313 Sampling Techniques (3)
Methodology of simple random sampling, stratified, systematic cluster, and two-stage sampling is developed. Estimation of sample size determination, and minimized costs of sampling are discussed. Use of resampling statistical software. Prerequisite: STAT 200.

STAT 350 Mathematical Statistics I (3)
Calculus based mathematical development of discrete and continuous random variables. Topics include probability axioms and rules, Bayes' Theorem, discrete and continuous distributions, expectation, variance, moment generating functions, marginal and conditional distributions, bivariate distributions, transformations, sampling distributions and the central limit theorem. Prerequisites: STAT 311 and MATH 253 (may be taken concurrently).

STAT 351 Mathematical Statistics II (3)
This course is a continuation of STAT 350 Mathematical Statistics I. This course is a calculus-based theoretical study of point estimators by method of moments and maximum likelihood, confidence intervals, hypothesis testing, simple linear regression, analysis of variance, and nonparametric methods. Additional topics may include experimental design, quality control, multiple linear regression, and survival analysis. Prerequisite: STAT 350.

STAT 395 Independent Study (1-3)

STAT 396 Topics (1-3)

STAT 412 Correlation and Regression (3)
Graphical, numerical, and theoretical least-squares analysis for simple and multiple regression and correlation, including inference methods, diagnostics and remedial measures, simultaneous inference methods, the matrix approach to regression and correlation analysis, stepwise regression procedures. Use of statistical software. Prerequisites: STAT 311, and MATH 121 or MATH 146 or MATH 151.

STAT 425 Design and Analysis of Experiments (3)
Design and analysis of single and multiple factor experiments, fixed, mixed and random effects designs including multiple comparison procedures, transformations, fixed, mixed and random effects designs, completely randomized designs, randomized block designs, Latin square designs, and nested designs. Prerequisite: STAT 412.

STAT 494 Seminar (1)
Discussions of specialized topics by students, faculty, or visiting professors. One-hour meeting per week.

STAT 495 Independent Study (1-3)

STAT 496 Topics (1-3)

SUPPLEMENTAL COURSES (SUPP)

SUPP 101 Introduction to Higher Education (1-3)
Assistance and guidance for students in maximizing their potential for success in college by promoting their academic growth. Emphasizes test taking, reading techniques, note taking, and memory as well as the following: critical thinking, stress management, utilization of campus resources, goal setting, relationship of academic planning to career goals, career exploration and other topics.

SUPP 105 Competency Portfolio Development (1)
Required preparation of learning portfolio for assessment of academic credit. Will aid in organization and completion of portfolio for prior learning experiences; workshop credit is unrelated to final approval of portfolio for specific course credit.

SUPP 201 Theory and Practice of College Peer Tutoring (3)
General and specific training for college level peer tutoring. Readings, discussion, experiential exercises expose students to contemporary learning theories, learning enhancement techniques, and effective applications to group and individual learning situations. Supervised tutoring practicum applies theories and concepts to actual tutoring sessions. Prerequisite: permission of instructor; 2.5 GPA; recommendation by instructor in subject area.

SUPP 202 Sophomore Year Experience (2)
Exploration of career and academic interests. Emphasis on self-discovery, resume building, making connections with faculty and community members, and solidification of academic plans. Includes a follow-up opportunity to job shadow and participate in service learning. Prerequisites: Sophomore level standing, permission of instructor.

SUPP 296 Topics: (1-3)

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TECHNOLOGY INTEGRATION (TECI)

TECI 110 Applied Physics (3)
Instruction and application of physics in relation to technical education. One hour lecture and laboratory objectives.

TECI 118 AC Passive Circuits (3)
TECI 118L AC Passive Circuits Laboratory (1)
Analysis of AC circuits including resistors, capacitors, inductors, and use of standard test equipment. Three one-hour lectures and one one-and-one-half hour laboratory per week.

TECI 132 Introduction to IT Hardware and System Software (3)
Basic hardware and software study of stand-alone or local/wide-area computers. Hands-on experience using 5x or above architecture.

TECI 170 Introduction to Communications (3)
Overview of communication systems that include both central office based and premise based platforms. The switching and service components of RBOC and inter-exchange providers will be examined and discussed. Characteristics, advantages, and disadvantages of the various systems will be compared and contrasted. Architecture and design of switching infrastructures and components will also be covered.

TECI 180 Cisco Networking I (3)
The first of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: OSI model, internetworking devices, IP addressing, LAN media & topologies, structured cabling, electronics.

TECI 185 Cisco Networking II (4)
The second of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: Safety; Networking; Network terminology and protocols; Network standards; LANs, MANs, SANs, WANS; OSI model; Ethernet; Token ring; FDDI; TCP/IP addressing protocol; Dynamic routing; the Network Administrator's role and function. Prerequisite: TECI 180.

TECI 196 Topics: (1-3)

TECI 230 Cisco Networking III (4)
The third of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: LAN switching; VLANs; LAN design; IGRP; Access lists; IPX/SPX; with concepts applied through design of a Threaded Case Study (TCS). Prerequisites: TECI 180 and 185.

TECI 235 Cisco Networking IV (4)
The fourth of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: WANs, SANs design; PPP; ISDN; Frame relay; Master documentation skills; with concepts applied through design of a Threaded Case Study (TCS). Prerequisites: TECI 180, 185, and 230.

TECI 240 VoIP Fundamentals (3)
Covers the components of engineering the telephone outside plant, fundamentals of transmission, resistance design, and distribution cable design in serving a customer area.

TECI 251 Leadership (2)
Personal and professional leadership skills used to aid in the transition from worker, to a supervisory position.

TECI 260 Information Technology Hardware and System Software (3)
Use of an internal systems approach to building and maintaining stand-alone or local/wide area computers utilized in networking. Hands on experience using 5x or above architecture.

TECI 265 Advanced IT Hardware and System Software (2)
An internal systems approach to building and maintaining computers that can be used as stand-alone or on a local/wide area network. An advanced study of networking and software projects. The computers are 5x and above architecture. Electronics Technology Majors Only: Co-requisite 265L, prerequisites TECI 260, 260L.

TECI 265L Advanced IT Hardware and System Software Laboratory (2)
An internal systems approach to building and maintaining computers that can be used as stand-alone or on a local/wide area network. An advanced study of networking and software projects. The computers are 5x and above architecture. Electronics Technology Majors Only: Co-requisite 265L, prerequisites TECI 260, 260L.

TECI 290 Certification: (2)
A capstone certification preparation course specifically addressing each emphasis and the associated certifications.

TECI 292 Capstone in Technical Engineering Planning and Economics (4)
Knowledge to articulate the tactical planning functions performed within capacity provisioning. Access and apply the various tactical planning tools and data elements to supporting documentation. Economic principles in costing, value, capital investment, profitability and inventory.

THEATRE (THEA)

**At least one course at each level must be taken in sequence.*

THEA 114 Summer Theatre (3)
Professional summer theatre experience. The student is expected to participate in all phases of the theatre operation including acting, technical work, directing, box office management, etc. It is advisable for a student enrolled in summer theatre not to enroll in any other class. Five plays are presented in a seven-week period.

THEA 117, 118* Play Production (1)
A practical course in stagecraft concerned with the production of plays. The student works in all phases of production. Students will work three hours per week unless other arrangements are made with the instructor.

THEA 119, 120* Technical Performance (1)
Direct participation in the technical aspects of various productions. Grade will depend upon the preparatory work involved and upon the final technical production. Students must work a minimum of two productions in order to receive credit.

THEA 128, 129 Theatre Forums (1)
Specialized workshops in various aspects of theatre made possible by visiting

artists and/or lecturers or by attending seminars or workshops. Papers and discussions are used for evaluation.

THEA 130 Script Analysis (3)
Introduction to practical analysis for enhancing the move from script to performance. Familiarizes students with script analysis techniques useful to the collaborative theatrical team.

✓ **THEA 141 Theatre Appreciation-GTAH1 (3)**
Examination of basic presentation techniques and history of theatre.

THEA 142 Make-up (3)
All types of make-up for the stage. Students examine straight and character make-up techniques and learn the use of crepe hair, prosthetics, and other material.

THEA 143 Costuming (3)
Costume design and the history of costume.

✓ **THEA 145 Introduction to Dramatic Literature-GTAH1 (3)**
Dramatic literature from classical Greeks to modern dramatists.

THEA 147, 148 Drama Performance (1-2)
Requires a student to appear in a major production on campus. The grade will depend upon the preparatory work on the play's character and upon the final performance. Prerequisite: consent of instructor.

THEA 150 Fundamentals of Acting (3)
This course will introduce non-theatre majors to the basic components of the acting process, including scene work, improvisation, and audition techniques.

THEA 153 Acting I: Beginning Acting (3)
Fundamentals of Acting via improvisation and scene study. Students perform in solo, duo and/or group scenes. Prerequisite: Theatre Arts major or minor in good standing.

THEA 154 Acting II: Auditions (3)
Resume writing. Choice and preparation of effective audition pieces. Prerequisite: THEA 153 or consent of instructor.

THEA 196 Topics (1-3)

THEA 213 Creative Play Activities-Drama (2)
Creative dramatics in a learning situation. Includes subject matter of interest to anyone in early childhood education, general education, social work, religious education, and/or recreation.

THEA 214 Summer Theatre (3)
See THEA 114.

THEA 217, 218* Play Production (1)
See THEA 117, 118. Prerequisites: courses must be taken in sequence or by consent of the instructor.

THEA 219, 220 Technical Performance (1)
See THEA 119, 120.

THEA 228, 229 Theatre Forums (1)
See THEA 128, 129.

THEA 243 Theatre Practice: Scene Construction, Painting, and Design (3)
Techniques of construction; painting of scenery; properties for the theatre and basic principles of scene design.

THEA 244 Theatre Practice: Beginning Lighting (3)
A basic course in the use of light and instrumentation in various stage productions, including plays, dance concerts, and music programs.

THEA 247, 248 Drama Performance (1-2)
See THEA 147, 148. Prerequisite: consent of instructor.

THEA 253 Acting III: Stage Movement (3)
Basic techniques of gesture, movement styles, and combat. Developing an awareness of the use of the body as a means of expression is emphasized. Prerequisites: THEA 153 and THEA 154, or consent of instructor.

THEA 254 Acting IV: Dialects (3)
This course introduces students to the fundamentals of acting while using common stage dialects. Prerequisites: SPCH 112, THEA 153, THEA 154, and THEA 253, or consent of instructor.

THEA 255 Musical Theatre Techniques (3)
Exploration of solo song interpretation. Emphasis on basic mechanical, analytical, and physical skills needed to perform musical theatre. Building on an acting foundation, issues of range and vocal support as well as style and repertory will be emphasized. Prerequisites: THEA 150 or THEA 153; MUSA 137, or one semester of private vocal study, or by consent of instructor.

THEA 260 Costume Construction I (3)
Introduction to sewing skills, commercial patterns, distressing garments, and creative problem solving. Prerequisite: THEA 143.

THEA 296 Topics (1-3)

THEA 314 Summer Theatre (3)
See THEA 114.

THEA 317, 318* Play Production (1)
See THEA 117,118. Prerequisites: courses must be taken in sequence or by consent of the instructor.

THEA 319, 320 Technical Performance (1)
See THEA 119, 120.

THEA 322 Stage Management (3)
Theory and principles of human resources management, theatre technical production and actual stage management situations. Prerequisites: THEA 153 or THEA 243 or THEA 244 or consent of instructor.

THEA 328, 329 Theatre Forums (1)
See THEA 128, 129.

THEA 331 Theatre History I: 400 B.C. to 1642 (3)
History of theatre as an institution and its relationship to the other arts and to the social and economic environment, from 400 B.C. to 1642 A.D.

THEA 332 Theatre History II: From 1642 to the Present (3)
Major world theatre events from 1642 to the present day.

THEA 341 Musical Theatre History and Literature (3)
In-depth study of the literature and styles of the master composers of music theatre from its beginnings through the present day. Course work is designed for the Musical Theatre major, utilizing lecture and listening lab format and a research paper on a subject of the student's choice.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

THEA 343 Scene Design (3)
Experience in the designing of scenery and props for various types of productions with emphasis on research, acquisition, drafting, perspective, and rendering techniques. Prerequisite: THEA 243 or consent of instructor.

THEA 344 Advanced Stage Lighting (3)
Advanced training in the design and execution of lighting for the stage. Prerequisite: THEA 244 or consent of instructor.

THEA 345 World Drama (3)
Students will examine the richness and diversity of contemporary world theatre and drama from a global context.

THEA 347, 348 Drama Performance (1-2)
See THEA 147, 148. Prerequisite: consent of instructor.

THEA 353 Advanced Acting: Styles in Acting (3)
Various styles of acting used for the Classical, Elizabethan, Romantic, 19th century Melodrama and Realistic periods. Prerequisites: THEA 153, THEA 154, THEA 253, and THEA 254, or consent of instructor.

THEA 354 Advanced Acting: The Meisner Approach (3)
An examination of the Meisner Approach, the "film industry standard" technique that actors use to explore the Realistic/Naturalistic genre of plays and screenplays. Prerequisites: THEA 153, THEA 154, THEA 253, and THEA 254, or consent of instructor.

THEA 355 Music Theatre Repertoire (3)
Further development of song interpretation through scene study and ensemble performance. Emphasis on creating performances unified both dramatically and musically through show research and script analysis to develop characterization. Prerequisites: THEA 255; DANC 174 and 174L; DANC 177 and 177L; or consent of instructor.

THEA 360 Costume Construction II (3)
An introduction to developing period patterning, interpreting a rendering into finished garment, investigating ethnic styles and refining creative problem-solving skills. Prerequisite: THEA 260.

THEA 369 Improvisation (2)
Introduction to basic improvisational acting techniques, utilizing guided lectures and exercises and illustrating the role of non-script work in the development of the student actor. Students will create characters, scenes, and short original works. Prerequisites: THEA 153 and THEA 154.

THEA 376 World's Greatest Films (3)
Aesthetics and elements that qualify film as an important art form as seen through the major contributors from three important culturally diverse areas of the world: Europe, Asia and America.

THEA 380 Playwriting I (3)
Fundamentals of playwriting through a systematic, textual approach, the proper format of scriptwriting, and the writing of short scripts based on common thematic elements.

THEA 381 Directing I (3)
The fundamentals of directing culminating in the direction of a scene or short play for public viewing. Prerequisites: Junior or senior level Acting/Directing major, or consent of instructor.

THEA 382 Directing II (3)
Advanced directing techniques and production of a one-act play for public viewing. Prerequisite: THEA 381 or consent of instructor.

THEA 395 Independent Study (1-3)

THEA 396 Topics (1-3)

THEA 401 Performing Arts Management (3)
An introduction to the administrative and business aspects of the performing arts. Prerequisites: Senior standing or consent of instructor.

THEA 403 Methods of Teaching Drama and Speech (3)
Teaching communication, speechmaking, debate and discussion, creative drama, oral interpretation, play selection and direction in the public schools. Prerequisites: junior standing in English education or speech/theatre programs.

THEA 411 American Drama (3)
The study of American drama and theatre trends from the first American playwright to the current trends of today.

THEA 412 Contemporary Drama (3)
A study of contemporary drama from the advent of Realism to the present day.

THEA 414 Summer Theatre (3)
See THEA 114.

THEA 417, 418* Play Production (1)
See THEA 117, 118. Prerequisites: courses must be taken in sequence or by consent of the instructor.

THEA 419, 420 Technical Performance (1)
See THEA 119, 120.

THEA 428, 429 Theatre Forums (1)
See THEA 128, 129.

THEA 445, 446 Senior Tech/Design Capstone (3)
Work experience in various aspects of theatre tech/design. Prerequisites: Senior standing or consent of instructor.

THEA 447, 448 Drama Performance (1-2)
See THEA 147, 148. Prerequisite: consent of instructor.

THEA 453 Advanced Acting: Acting for the Camera (3)
The transition from stage acting techniques to camera acting techniques. Students will have the opportunity to work on camera with simplified sets and properties. Prerequisites: THEA 153, THEA 154, THEA 253, THEA 254, and THEA 354, or consent of instructor.

THEA 454 Advanced Acting: Elizabethan Acting Techniques (3)
An in-depth exploration of acting approaches to the verse drama of Shakespeare. Prerequisites: THEA 153, THEA 154, THEA 253, and THEA 254, or consent of instructor.

THEA 459 Advanced Acting: Chekhov Technique (3)
Introduction and exploration of the Michael Chekhov Acting technique. Prerequisites: THEA 153, THEA 154, THEA 253, and THEA 254, or consent of instructor.

Certain courses are only offered during the fall or spring semesters, or may be available only in alternating years. It is the student's responsibility to meet with their advisor and/or check the two-year course planning calendar on the Colorado Mesa University website for course availability. Learn more at **coloradomesa.edu/academics.**

THEA 494 Performance Seminar: Acting/ Directing and Musical Theatre Capstone (3)
Exploration of theories of audition, rehearsal and performance for upper division performance majors.

THEA 495 Independent Study (1-3)

THEA 496 Topics (1-3)

THEA 499 Internship (3-9)
Work in acting/directing, design/tech, music theatre and theatre management, or other situations that meet the instructor's approval. Prerequisites: senior standing and consent of the instructors.

TRANSPORTATION SERVICES CLUSTER: AUTOMOTIVE (TSTA)

TSTA 245 Manual Drive Trains (4)
Standard repair practices for drive train components to include: clutch, transmission, transaxle, drive axle, driveline, c-v and R & R procedures.

TSTA 247 Automatic Drive Train Service (4)
Standard repair practices for automatic drive trains to include: diagnosis, testing, R & R, and servicing of transaxles/rear wheel drive transmissions. Prerequisites: TSTC 100, 101, 140.

TSTA 265 Engine Control Services (2)
Repair and diagnosis of engine control systems with an emphasis on scan tool diagnosis and live hands on repair of systems.

TSTA 267 Body and Chassis Controls (2)
Theory, repair, and diagnosis of body accessories including air bags, electronic monitors, power seats, windows and wipers.

TSTA 275 Alignment and Suspension Service (3)
Repair of suspension systems to include: alignment (2 and 4 wheels), R & R component parts, and pre-alignment inspections.

TSTA 287 Engine Performance and Emissions (2)
Diagnosis and repair of engine performance and emissions-related failures. Emphasis on strategy based diagnostics through the use of exhaust gas analysis.

TSTA 289 Alternative Fueled Vehicles (2)
Introduction to the operational theory and principles, safety and repair of hybrid, fuel cell and hydrocarbon and alcohol-based alternative fueled vehicles. Emphasis on industry standard safety and repair practices. Prerequisites: TSTC 130 and TSTC 160.

TRANSPORTATION SERVICES CLUSTER: CORE (TSTC)

TSTC 100 Introduction to Transportation Services (1)
Introduction to procedures, tool usage, basic shop safety, and equipment.

TSTC 101 Vehicle Service and Inspection (2)
Introduction to vehicle systems, maintenance, and inspection. Service of the vehicle stems with emphasis on inspection and observation.

TSTC 110 Engine Fundamentals (1)
Introduction to Internal Combustion Engine theory, systems diagnosis, fundamentals and evaluation.

TSTC 130 Electrical Fundamentals (2)
Introduction to electrical theory, circuits, components, testing and use of test equipment.

TSTC 140 Drive Train Fundamentals (1)
Introduction to drive train components, diagnosis, light repair, and adjustment.

TSTC 160 Electronic Control Systems (2)
Study of electronic control systems applied to today's modern vehicles. Emphasis on sensors, actuators, and diagnostic techniques.

TSTC 170 Chassis Fundamentals (1)
Theory and operation of front and rear suspension systems, including steering front end geometry and component nomenclature.

TSTC 171 Brake System Fundamentals (2)
Theory, components, general repair practices and diagnosis of current brake systems.

TSTC 180 Fuel System Fundamentals (1)
Theory of gas and diesel injection, combustion process, delivery systems and general service techniques.

TSTC 190 Climate Control Fundamentals (1)
Theory of operation, nomenclature, identification, safety and environmental impact factors of air conditioning. Also covers heating and ventilation systems.

TRANSPORTATION SERVICES CLUSTER: DIESEL (TSTD)

TSTD 177 Air Systems Repair and Service (2)
This course studies the air systems on the heavy duty truck. The brakes, transmission shift, seats, and rear axle shift will be covered, to include, service and repair of components and systems. Repair of foundation brakes will also be included.

TSTD 215 Diesel Engine Reconditioning (5)
Industry standard rebuild practices for diesel engines. R & R of engine, complete disassembly, assembly and running of engine is covered. Tune-up and fuel system adjustment are covered.

TSTD 265 Diesel Engine Controls (3)
Repair and diagnosis of engine control systems with an emphasis on scan tool diagnosis and live hands-on repair of systems.

TSTD 275 Heavy Duty Suspension (2)
Types of on-road suspensions, tires, repair of components, diagnosis, measurements, and adjustments to front and rear suspensions.

TSTD 285 Diesel Fuel Injection (2)
Theory, diagnosis, and repair of diesel fuel injection systems. Emphasis on the adjustment and repair of injectors, filters, governors, blowers and turbos. Electronic systems, pump timing and pump replacement will also be covered.

✓ This course is approved by the Colorado Department of Higher Education for statewide guaranteed transfer as part of the gtPathways program. For more information please see page 51.

TRANSPORTATION SERVICES CLUSTER: GENERAL (TSTG)

TSTG 115 Gas Engine Reconditioning (4)
Industry standard rebuild practices for gas engines. R & R of engine, complete disassembly, assembly and running of engine is covered. Prerequisites: TSTC 100, 101, 110.

TSTG 120 Industrial Safety Practices (3)
Overview of current OSHA and EPA general industry regulations with an emphasis on hazardous materials, right-to-know, record keeping, and worker role in safety.

TSTG 135 Electrical Component Repair (2)
Electrical component repair to include: alternators, starters, wiring, and other electrical components. Prerequisites: TSTC 100, 101, 130.

TSTG 140 Job Shop (4)
Designed to obtain a working knowledge of the industry job standards, through use of lab work projects performed in house, when internships or co-op cannot be found. Prerequisites: TSTC core courses and second year status.

TSTG 150 Fluid Power (3)
Principles of hydraulics and pneumatic system including the construction, application, repair, maintenance and troubleshooting of components and systems.

TSTG 170 Practical Applications (4)
Designed to gain a working knowledge of a particular field of study through co-op, internships, work experience or related lab work in industry. Prerequisites: TSTC core courses and second year status.

TSTG 175 Hydraulic Brake Service (2)
Repair of brake systems to include: shoes, pads, cylinder reconditioning, machining rotors and drums, diagnosis, bleeding, R & R components, parking brakes and anti-lock systems.

TSTG 195 Climate Control Service (2)
Repair, diagnosis, R & R of components, charging, recycling and testing of heating and air conditioning systems of over the road vehicles.

TSTG 220 Industry Employment Practices (3)
Employment skills encompassing leadership, goal setting, personal traits, conflict resolution, quality, time management, life-long learning, written and oral communication, and customer relations.

TSTG 240 Advanced Job Shop (4)
Application of workplace skills in a controlled shop environment, through the use of real-life lab work projects, performed in house, when internships or co-op opportunities are not available. Prerequisite: TSTG 140.

TSTG 270 Advanced Practical Applications (4)
Designed to increase student competency through the use of internships or co-op training and real-life shop experiences in their chosen area specialty. Prerequisite: TSTG 170.

TSTG 296 Topics (1,2)

UTEC

UTEC 107 Mathematics for Technology (4)
Designed to provide students with a practical application to mathematics. Topics include common fractions and decimals, fundamentals of algebra, plane geometry, and introduction to trigonometric functions. (Hand held calculator required).

UTEC 150 Fluid Power (3)
Principles of hydraulics and pneumatic system including the construction, application, repair, maintenance and troubleshooting of components and systems.

UTEC 220 Industry Employment Practices (3)
Employment skills encompassing leadership, goal setting, personal traits, conflict resolution, quality, time management, life-long learning, written and oral communication, and customer relations.

WATER QUALITY MANAGEMENT (WQMS)

WQMS 100 Introduction to Water Quality (3)
Introduction to the water and wastewater treatment field and the various applied science concepts that are used to operate, maintain and monitor water quality; includes the hydrological cycle, water sources, hydraulics, ecosystems, pollution, water chemistry, water calculations, microbiological aspects of water and water quality control.

WQMS 105 Specific Calculations for Water Quality Management (4)
An in-depth study of the calculations associated with water and wastewater treatment; includes dimensional analysis, manipulation of conversation factors, geometric figures, velocities, detention time, surface loading, filtration and backwash rates, porosity, weir overflow rates, efficiencies, weight of dry solids, sludge pumping, settleable solids, volatile solids, mean cell residence times, settleability, disinfection and chemical dosage as relating to trickling filters, ponds, RBC, and activated sludge.

WQMS 106 Mechanical/Physical Treatment (3)
Introduction to wastewater treatment; includes the technician and their responsibility, effects of waste discharges, natural cycles, solids in waste discharges, natural cycles, solids in wastewater, NPDES permits, collection systems, pretreatment, primary treatment, secondary treatment, advanced treatment, flow measuring, solids handling and disposal.

WQMS 109 Water Distribution (3)
Purpose, selection and location of water storage facilities and the operation and maintenance of related equipment; includes storage facilities and capabilities, booster pumps, water mains and appurtenances, joints, pipe protection and installation, valves, fittings, hydrants, quality standards, contaminants and degradation inspection and monitoring, system troubleshooting, surveillance, cross connections, pressure main breaks, corrosion control, disinfection and emergency planning.

WQMS 116 Conventional Surface Water Treatment (3)
Coagulation, flocculation, sedimentation, filtering, corrosion and taste and odors; includes descriptions, operating procedures, associated calculations, start-up and shut down procedures, laboratory tests, troubleshooting, maintenance, safety and records.

WQMS 118 Wastewater Collection Systems (3)
Purpose, components and design of collection systems; including safety procedures, inspection and testing, pipeline cleaning and maintenance, underground repair, lift stations and sewer rehabilitation.

WQMS 119 Basic Water Quality Analysis (4)
Relation of laboratory control tests to the chemistry of water and wastewater treatment. Students gain the skills and techniques to operate within a laboratory; includes laboratory equipment and instrumentation-identification, set-up and calibration, safety, sample collection and preservation, written reports and laboratory tests. Laboratory testing includes hardness, alkalinity, dissolved oxygen, biochemical oxygen demand, chlorine residual, pH, phosphorus, dissolved solids, total solids, suspended solids, turbidity, Langlier index, fluoride and biomonitoring.

WQMS 212 Drinking Water Regulations (4)
Knowledge and skills to establish a compliance program for a water treatment facility using ground water, surface water, or ground water influenced by surface water sources. The student will learn all regulatory requirements for microbiological and chemical contamination (organic, inorganic, and radio) for monitoring and reporting operations.

WQMS 227 Utility Management (3)
Fundamental business practices that are utilized in managing a water or wastewater utility. Topics include the functions of a manager, planning, organizing, staffing, public relations, financial management, regulatory compliance, safety, and operations and maintenance from a management perspective.

WELDING (WELD)

WELD 110 Shielded Metal Arc Welding (3)
Study and skill development of Shielded Metal Arc Welding (SMAW/Stick). Lecture and laboratory. Safe use, theory, principles and practices of SMAW equipment in structural applications. SMAW with carbon steel plate in most positions. A.W.S. welding test coupons and guided bend test.

WELD 117 Oxy-Fuel and Plasma Arc Cutting (3)
Study and skill development of Oxy/Fuel and Plasma Arc Cutting (PAC). Lecture and laboratory. Safety practices, theory, principles and practice of Oxy/Fuel and PAC equipment. Oxy/Fuel welding, Oxy/Fuel and PAC cutting with sheet metal and carbon steel plate in most positions. Carbon Arc Cutting and Gouging (CAC-A) may be included.

WELD 133 Metal Fabrication Methods (3)
Study and skill development of metal fabrication methods. Lecture and laboratory. Measuring tools and techniques, welding shop mathematics, blueprint reading, welding symbols, sheet metal and steel plate fabrication project layout methods applied. Basic blacksmithing techniques and ornamental iron layout included. Structural and pipe connection layout methods introduced.

WELD 144 Welding Business Operations (3)
Strategies of owning a welding business. Business plan, business name and legal structure, start up costs, welding project costs, project welding codes, and specifications contacts explored.

WELD 151 Introduction to Welding (3)
Introductory welding course. Lecture and laboratory. Safe practices, theory, principles, and use of welding and cutting equipment. Oxy/Fuel, Plasma Arc Cutting, Shielded Metal Arc Welding, Gas Metal Arc Welding, Flux Cored Arc Welding with sheet metal and carbon steel plate in most positions. Gas Tungsten Arc Welding may be included.

WELD 211 Gas Metal Arc Welding/Flex Core Arc Welding (3)
Study and skill development of Gas Metal Arc Welding (GMAW/MIG) and Flux Cored Arc Welding (FCAW/Flux Core). Lecture and laboratory. Safe practices, theory, principles, and use of GMAW and FCAW equipment. GMAW and FCAW sheet metal and carbon steel plate in most positions. A.W.S. welding test coupons. GMAW with aluminum alloys may be included.

WELD 230 Gas Tungsten Arc Welding (3)
Study and skill development of Gas Tungsten Arc Welding (GTAW/TIG). Lecture and laboratory. Safe practices, theory, principles, and use of GTAW equipment. GTAW with sheet metal and carbon steel plate in most positions. Also, GTAW stainless steel and aluminum sheet metal in most positions. A.W.S. testing.

WELD 235 Advanced Gas Tungsten Arc Welding (3)
(Elective for Welding degree students only) Advanced Gas Tungsten Arc Welding (GTAW/TIG). Lecture and laboratory. Safe practices, theory, principles and use of GTAW equipment. GTAW with aluminum, low alloy steel, high alloy steel (stainless) plate and pipe in most positions. Prerequisite: WELD 230 and consent of instructor.

WELD 240 Pipe Welding (3)
Study and skill development of pipe welding. Lecture and laboratory. Safe practices, theory, principles, use of pipe cutting/beveling and welding equipment. Shielded metal arc welding with carbon steel pipe. API and ASME Code electrode directions in most pipe welding positions. Oxy/Fuel, GTAW, GMAW, FCAW, and STT pipe welding may be included. API and ASME test coupons. Prerequisites: WELD 110 and 117, or instructor consent.

WELD 261 Testing and Inspection (3)
Advanced classroom course on testing and weld inspection. Destructive and non-destructive weld testing methods applied. AWS bridge and structural codes, API cross country pipe welding codes,

ASME pressure vessel and pressure piping codes. (On demand)

WELD 270 Practical Applications (3)
(Required for Welding degree only: Capstone Course) Welding project course. Discussions and directions with laboratory objectives. Application of techniques and knowledge gained in previous welding courses. Guidance and advice of the instructor applied to welding projects. Prerequisites: WELD 110, WELD 117, WELD 133 and WELD 144 or instructor consent.

WELD 295 Independent Study (1,2)

WELD 296 Topics (1-3)

WELD 299 Internship (1-14)

WILDLAND FIRE MANAGEMENT (FSWM)

FSWM 100 Introduction to Wildland Fire Basic Fire Guard School (4)
Instruction in the primary environmental factors that affect the start and spread of wildfire and recognition of potentially hazardous situations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-110, S-130, S-190, I-100, L-180.

FSWM 102 Firefighter Type I Training (1)
Introduces the training needs of the Firefighter Type 1. It contains several tactical decision modules designed to facilitate learning the objectives and class discussion. This course is designed to be interactive in nature. Topics include fireline reference materials, communications, and tactical decision making. It also includes Standards for Survival and Look Up, Look Down, Look Around techniques. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-131.

FSWM 103 Expanded Dispatch Recorder (1)
The structure of an expanded dispatch organization and how to effectively perform within that organization. Students will develop a working knowledge of the purpose and process of completing the resource order and other dispatch forms and learn established dispatch procedures. This course consists of the curriculum and activities included in the National Wildfire Group Firefighting Training classes: D-110.

FSWM 140 Initial Attack Incident Commander (1)
Meets the training needs of the ICT4. It is presented in a lecture/discussion format and supplemented with group exercises. The six instructional units cover: Readiness and Mobilization; Size-up, Planning, and Ordering; Deployment and Containment; Administrative Requirements, and Post-Fire Evaluation. This course consists of the curriculum and activities in the National Wildfire Coordinating Group Firefighting Training classes: S-200.

FSWM 141 Introduction to Incident Information (2)
Cognitive material and skills needed to become type 3 information officers (IOF3). The course covers all aspects of establishing and maintaining an incident information operation, communicating with internal and external audiences to handling special situations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-203.

FSWM 142 Portable Pumps and Water Use (1)
Introduction to the three areas of supply, delivery, and application of water. Students will be required to demonstrate their knowledge of correct water use, basic hydraulics, and equipment care. Modules support required set up, operation, and maintenance of pump equipment. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-211.

FSWM 143 Wildfire Chain Saws (2)
Introduction to the function, maintenance and use of internal combustion, engine-powered chain saws and their tactical wildland fire application. Modules support entry-level training for firefighters with little or no previous experience in operating a chain saw and provides hands-on cutting in surroundings similar to fireline situations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-212.

FSWM 144 Fire Operations in the Wildland/Urban Interface (2)
Emphasizes the tactical decisions made by structure and wildland firefighters when confronting fire that threatens life, property, and improvements in the wildland/urban interface. Instructional units include interface awareness, size up, initial strategy and incident action plan, structure triage, structure protection tactics, incident action plan assessment and update, follow up and public relations, and firefighter safety in the interface. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-215.

FSWM 145 Crew and Dozer Boss (2)
Addresses student proficiency in the performance of duties associated with the single-resource boss position from initial dispatch through demobilization to the home unit. Topics include operational leadership, preparation and mobilization, assignment preparation, risk management, entrapment avoidance, safety and tactics, offline duties, demobilization and post-incident responsibilities. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-230 and S-232.

FSWM 146 Engine Boss (1)
Performance proficiency of the duties associated with engine boss, single resource (ENGB). Topics include engine crew capabilities and limitations, information sources, fire size up considerations, tactics and wildland-urban interface. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-231.

FSWM 147 Ignition Operations (2)
Training in the functional roles and responsibilities connected with firing operations. The course covers planning, ignition procedures and techniques, and equipment applicable to wildland and prescribed fire. This course also addresses the role of the ignition specialist or

firing boss as the organization manages escalation from a non-complex to a complex situation. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-234.

FSWM 148 Status/Check-In Recorder (1)
Introduces students to the tools and techniques used to perform duties of status check-in recorder (SCKN). The course provides an overview of what a student can expect if dispatched to an incident. Each student will need access to a computer that has the most current incident automation software. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training Program class S-248.

FSWM 149 Interagency Incident Business Operations (1)
Covers the general training needs of all positions for which an understanding of interagency incident business management is required. The Interagency Incident Business Management Handbook, PMS 902, is used as the primary job aid to supplement this course. It provides the basic policy and direction for incident business management. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-260.

FSWM 150 Applied Interagency Incident Business Management (1)
Familiarizes the student with the application of standard agency business practices in an interagency environment. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training Program class S-261.

FSWM 151 Basic Air Operations (1)
Covers aircraft types and capabilities, aviation management and safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-270.

FSWM 152 Helicopter Crew Member (2)
Proficiency in all areas of the tactical and logistical use of helicopters to achieve efficiency and standardization. Topics include: aviation safety, aircraft capabilities and limitations, aviation life support equipment, aviation mishap reporting, pre-flight checklist and briefing/debriefing, aviation transportation of hazardous materials, crash survival, helicopter operations, helicopter field exercise. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-271.

FSWM 153 Intermediate Wildland Fire Behavior (2)
Prepares the prospective supervisor to undertake safe and effective fire management operations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-290.

FSWM 154 Wildland Fire Origin & Cause Determination (2)
Knowledge and skill bases for the Wildland Fire Origin and Cause Determination Investigator (INVF). The concepts taught in this course will help an INVF perform at an acceptable level on a national basis without regard to geographic boundaries. The course is presented by lecture, electronic presentations, field exercises, and class discussion. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class FI-210.

FSWM 155 Basic Incident Command Systems and Facilitative Instructor (4)
Introduction to the principles of the Incident Command System (ICS) associated with incident-related performance. Topics include leadership and management, delegation of authority and management by objectives, functional areas and positions, briefings, organizational flexibility, transitions and transfers and the instructional techniques that facilitate the development of skilled staff. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: I-200, IS-200, Q-436 and M-410.

FSWM 156 Fellowship/Leadership (1)
Prepares individuals to step into a leadership role. Topics include: leadership values and principles, transition challenges for new leaders, situational leadership, team cohesion factors, and ethical decision making. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: L-280.

FSWM 158 Driving for the Fire Service (2)
Familiarizes the students with the safety and regulations governing the driving practices and vehicle operations expectations in wildfire situations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-216.

FSWM 160 Field Observer (1)
Covers the information and skills needed to serve as a field observer and/or a prescribed fire effects monitor (FEMO) during an interagency field activity. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-244.

FSWM 162 Advanced Firefighter Position Task Book (3)
Documentation processes for the recording of routine and special activities in the field. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program to include not less than 135 hours of documented activities.

FSWM 196 Topics (1-3)

FSWM 200 Extended Attack Incident Commander (1)
Covers the training needs of the incident commander type 3 (CT3). The six instructional units cover Information Gathering, Planning, Supporting Organization, Operations, Transitioning, and Demobilization/Administrative Requirement. This course consists of the curriculum and activities included in the

National Wildfire Coordinating Group Firefighting Training program class S-300.

FSWM 201 Task Force/Strike Team Commander (2)
Covers the training requirements outlined in the Wildland Fire Qualification System Guide and the Positions Task Books (PTB) developed for the positions of Task Force Leaders and Strike Team Leader. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-330.

FSWM 202 Tactical Decision Making in Wildland Fire (2)
Covers the training requirements in the Operations Section of the Incident Command System. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-336.

FSWM 203 Division/Group Supervisor (1)
Prepares the students to perform in the role of division/group supervisor. It will provide instruction in the support of the specific tasks of division/group supervisor. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-339.

FSWM 204 Medical Unit Leader (1)
Covers the skills and information needed to perform in the role of medical unit leader (MEDL). This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-359.

FSWM 205 Introduction to Wildland Fire Behavior Calculations (2)
Covers the information and skills required for effective fire behavior prediction. This course introduces fire behavior calculations by manual methods, using nomograms. The student gains an understanding of the determinants of fire behavior through studying input (wind, slope, fuels, and fuel moisture). Students also learn how to interpret fire behavior output. Local and regional environment differences are stressed. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-390.

FSWM 206 Intermediate Incident Command Systems (1)
Covers the Incident Command System (ICS) organization and operations in greater detail, including application of essential principles and description of air operations. This course comprises five of the 17 instructional modules making up the ICS curriculum. These include Organization and Staffing (Module 7), Organizing for Incidents or Events (Module 8), Incident Resources Management (Module 9), Air Operations (Module 10), and Incident and Event Planning (Module 11). This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class I-300.

FSWM 240 Planning Section Chief (1)
Leads toward becoming a planning section chief type 2 (PSC2). Topics include information gathering, strategies and briefings, incident action plan (IAP), interactions, forms, documents, supplies, demobilization, and an optional technology section. In the final module, the students observe a simulated planning meeting and use the information derived to find errors in an incident action plan (IAP). This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-440.

FSWM 241 Advanced Incident Command Systems (1)
Directs the student toward an operation understanding of large single-agency and complex multi-agency/multi-jurisdictional incident responses. Presented in an intense participative classroom environment, this course focuses on area command and staff issues, as well as the planning, logistical and fiscal considerations associated with complex incident management and interagency coordination. This course comprises four of the 17 instructional modules making up the ICS curriculum. These include Command and General Staff (Module 12), Unified Command (Module 13), Major Incident Management (Module 14), Area Command (Module 15). This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class I-400.

FSWM 242 Multi-Agency Coordinating Group (1)
Training and orientation to potential Multi-Agency Coordinating (MAC) Group members and MAC Group Coordinators. It provides the students with a working knowledge of the Multi-Agency Coordination System and the organization that helps support MAC Group activities. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class M-480.

FSWM 278 Supervised Work Experience (3)

FSWM 296 Topics (1-3)

FSWM 299 Internship (3-8)

Administration

Colorado Mesa University Board of Trustees

(Date indicates year term expires.)

DOUG PRICE (2012), Chair, Denver

LENA ELLIOTT (2012), Vice-Chair; Grand Junction

JEROME GONZALES (2013), Grand Junction

CECIL HERNANDEZ (2013), Aspen

LORENZO MARQUEZ (2010) Englewood

CHARLIE MONFORT (2011), Greeley

KATHLEEN ECK (2014), Edwards

DAN ROBINSON (2013), Grand Junction

JOSEPH SKINNER (2011), Grand Junction

BRENDA WILHELM (2013), Faculty Trustee

Colorado Mesa University Administrative Officers

TIMOTHY FOSTER (2004), President; B.A., Kenyon College; J.D., University of Denver.

PATRICK DOYLE (2004), Vice President, Finance and Administrative Services; B.S., University of Detroit; M.A., Eastern Michigan University.

CAROL FUTHEY (2004), Vice President, Academic Affairs; B.S.Ed., Slippery Rock State College; M.A., Southern Illinois University - Edwardsville; Ph.D., University of Cincinnati.

JOHN MARSHALL (2007), Vice President, Student Services; B.A., Mesa State College; M.P.A., University of Colorado-Denver.

BRIGITTE SUNDERMANN (2001), Vice President, Community College Affairs and Assistant Technical Professor of Manufacturing Technology; B.S., Colorado State University; M.B.A., University of Phoenix.

STEVEN WERMAN (1990), Assistant Vice President, Academic Affairs and Professor of Biology; B.S., M.S., California State University - Long Beach; Ph. D., University of Miami.

ANDREW RODRIGUEZ (1989), Assistant Vice President, Auxiliary Services; B.S., University of Northern Colorado.

RYAN MILLER (2001), Director, Intercollegiate Athletics; A.A., Colby Community College; B.A., Mesa State College; M.A., Colorado Christian University.

KRISTINE POLLARD (2009), Director, Development; B.A., Mesa State College.

Colorado Mesa University Administrative Personnel

JENNA ADAMS Assistant Athletic Trainer; B.S., University of New Mexico; M.S., University of New Mexico.

RICK ADLEMAN (2001), Director, Alumni Relations; B.B.A., M.B.A., Mesa State College.

LALOFAU ANTILLON (2009), Acting Mentor, First Generation Students.

KURTIS ARMSTRONG (2011), Director, Community Education Center, Western Colorado Community College; B.A., M.A., University of Northern Colorado.

MARIA ASHRAF (2011), Enrollment Marketing Analyst; B.A., East West University; M.B.A., Eastern Michigan University.

JENNIFER BARTON, (2008), Special Projects Coordinator, Academic Affairs; B.A., Walla Walla University, M.A., University of California-Riverside.

KEVIN BATES (2005), Information Technology Administrator; B.S.E.E., Utah State University.

TERESE BATES (2005), Associate Registrar; B.S., M.A., Colorado Christian University.

JAMI BECK-KUEBLER (2006), Grants Specialist; B.A., University of Northern Iowa.

VICTOR BELLAVIA (2006), Director, Student Support Services (TRiO); B.A., Mesa State College, M.S.M., Regis University.

ANGIE BERTRAND (2000), Director, AmeriCorps; B.S., Colorado Christian University

MARIA BEST (2008), Admissions Processing Manager; A.A., B.A., Mesa State College.

ANNE BLEDSOE (2004), Reference Librarian; B.A., Lawrence University; M.A., University of Wisconsin.

JOEY MONTOYA BOESE (2005), Director, Montrose Center; B.S., Adams State College; M.S. Colorado State University.

WHITNEY BONNER (2009), Admissions Counselor; B.S., Mesa State College.

BARBARA BORST (1981), Librarian; Head, Research Services and Interlibrary Loan; B.A., Sterling College; M.L.S., Indiana University.

LAURA BRADLEY (2010), Communications Coordinator and Box Office Manager; B.A., Mesa State College.

SONIA BRANDON (2004), Director, Institutional Research and Assessment; B.A., M.A., University of Colorado-Colorado Springs; Ph.D., University of Colorado, Denver.

KEVIN BRENZEL (2011), Residence Hall Coordinator of North Avenue Hall; B.S, State University of New York at Portland.

TRACY BRODRICK (2004), Bookstore Manager; B.A., Chadron State College.

AIMEE BROWN (2007), Head, Special Collections and Archives, Tomlinson Library; B.A., Gustavus Adolphus College; M.L.I.S., Simmons College.

JEREMY BROWN (1998), Executive Director, Information and Technology Communication; B.S., Mesa State College.

PAUL BROWN Head Mens Golf Coach.

LINDSAY BYERS (2011), Acting Program Coordinator; B.A., Colorado State University

PAIGE CADMAN (2009), Admissions Counselor - Ambassadors; B.A., Mesa State College

APRIL CACKLER (2006), Academic Advisor; B.A., Mesa State College.

ASHLEE CADDY (2008), Financial Aid Counselor-Processing; B.A.; Adams State College.

ANNETTE CALLAWAY (1999), Professional Staff Assistant to the Vice President for Academic Affairs; B.S., M.Ed., Colorado State University.

KRIS CALVIN (2008), Center for Teacher Education Undergraduate Coordinator, B.A., Concordia University.

MATTHEW CANTERBURY (2007), Assistant Director, Admissions; B.A., California State University.

MAGGIE CHLEBANA (2007), Assistant Coach, Volleyball; B.A., Baylor University.

JAMES CIHA (2008), Customer Service Coordinator, Financial Aid; B.S., University of Wisconsin.

NANCY CONKLIN, (2002) Coordinator, Educational Access Services; B.A., M.P.A., University of Colorado.

BRYAN DAVIS (2008), Parking Services Manager; B.B.A., Western Michigan University.

DOREEN DeMOND (2004), Budget Services Coordinator; A.A., Lansing Community College; B.A., Michigan State University; C.P.A. (inactive).

PATTY DIEKMAN (2008), Financial Aid Counselor; A.S., SUNY Agricultural & Technical College; B.S., Colorado State University.

MARY DOANE (2009), Assistant Coach, Women's Basketball; B.A., Fort Lewis College; M.S., Capella University.

JEFFREY DOYLE (2006), Fiscal Analyst and Special Projects Coordinator; B.B.A., Western Michigan University.

LINDA DU (1995), Associate Director, Banner Systems; B.A., Beijing College of Economics; M.B.A., State University of New York-Buffalo.

SUZANNE ELLINWOOD (2000), Purchasing Manager; B.S., University of Colorado-Boulder.

PATRICIA ELLIOTT (1995), Sports Information Director; B.S., University of Nevada.

HEATHER EXBY (2003), Director, Student Services, Western Colorado Community College; B.A., Colorado College; M.Ed., Harvard University.

SUE FANTE (2005), Professional Staff Assistant to the President.

DAVID FLEMING (2005), Head Coach, Women's Volleyball; B.A., Denison University; M.S., University of Michigan.

BELINDA FLYNN (2006), Associate Director of Information Systems; B.S., Mesa State College.

CHRIS FREIJE Assistant Wrestling Coach; B.A., Western State College of Colorado.

JOSH FULLMER (2006), Head Athletic Trainer; A.S., College of Eastern Utah; B.S., Weber State University; M.S., University of Utah.

GEANA GAASCH (2008), Athletic Training Education Program Clinical Coordinator; B.A., Mesa State College; M.S., University of Colorado-Colorado Springs.

SYNDEE GARLAND (2007), Academic Advisor; B.A., University of California-Riverside; M.A., Adams State College.

REBECCA GIBB (2009), Graduate Coordinator, Center for Teacher Education; B.S., Brigham Young University; Med., University of Phoenix.

WILLIAM GILMER (2007), Student Financial Advisor, A.A., B.B.A.; Mesa State College.

ANNIE GINGERICH (2010), Admissions Counselor- International; B.A., Central College; M.A. English, M.A. Spanish, Colorado State University.

CANDACE GRAUS (2006), Purchasing Coordinator; B.S., University of Colorado.

CHRIS HANKS (1993), Head Coach, Baseball; B.S., Mesa State College; M.A., University of Northern Colorado.

SCOTT HANSEN Head Womens Golf Coach

SHANNON HATTERVIG Assistant Athletic Trainer; B.S., South Dakota State University; M.S., South Dakota State University.

SHANON HAWKINS (1998), Acting Assistant Controller.

JIM HEAPS (1991), Head Coach, Men's Basketball; B.S., Mesa State College; M.S., Southern Illinois University.

GRACE HENDRICKS (2006), Bursar; A.A., Lamson College; B.B.A., Baker College.

CARRIE HINDS (2007), Assistant Director, Admissions, Transfer Services; B.S.W., Metropolitan State College of Denver; M.S.W., University of Nevada-Las Vegas.

DEBORAH HOEFER (1995), Director, College Center; B.S., B.A., University of Denver.

AMANDA HOLMAN (2010) Acting Assistant Coordinator, Testing Services; B.A.S., Mesa State College

AMY HOWARD (2008), Area Coordinator of Pinon and Tolman Halls and the Walnut Ridge Apartments, B.A., Keene State College; M.A.Ed., Naropa University.

MICHAEL HUGHES (2009), Interim Manager, Intramural and Club Sports; B.A., M.B.A., Mesa State College.

KATHY HURSHMAN (1989), Assistant Controller; A.A.S., B.B.A., Colorado Mesa University.

DAVID JAHNKE (2008), Sports Information Assistant; B.S., Mesa State College.

DONNA JUSTIN (2009), Professional Staff Assistant, Montrose Campus; B.S., Colorado State University.

ANDREA KECK (2008), Acting Webmaster; B.B.A., Mesa State College.

BENJAMIN KEEFER (1991), Director, Extended Studies Program; A.A.S., Northeastern Junior College; B.S., M.Ed., Ph.D., Colorado State University.

APRIL KENT (2010), Assistant Coordinator, Tutorial Services; B.A., University of Northern Colorado.

BARBARA CASE KING (2005), Director, Human Resources; B.S., University of Wyoming; J.D., University of Wyoming.

JILL KNUCKLES (2006), Benefits and Compensation Manager; B.B.A., Mesa State College.

MILES KOCHEVAR Assistant Football Coach

DIANE KULL (2006), Career Development Specialist; B.A., Eastern New Mexico University.

CATHY LARSEN (2011) Professional Staff Assistant to the Vice President for Student Services, B.S. Western State College.

CAROL LAWRENCE (2005), Loan Coordinator; B.S., M.A., University of North Dakota.

DANIEL LINSACUM (2009), Strength and Conditioning Coach; B.A., Mesa State College.

STEPHANIE LOPEZ Assistant Athletic Trainer; B.S. University of Wisconsin-Eau Claire; M.S., Indiana State University, Terre Haute.

CINDY LUEB (2000), Director, Sponsored Programs; B.B.A., M.B.A., Stephen F. Austin State University.

PHILLIP LUNDQUIST (2011), Residence Hall Coordinator of Grand Mesa Hall; B.A., Whitman College.

DANIEL MACDONALD (2006), Head Coach, Men's and Women's Tennis; B.B.A., Mesa State College.

MICHAEL MANSHEIM (2005), Director, Marketing and Publications; B.B.A., University of Miami.

KENT MARSH (2007), Director, Facilities Services; B.S., Colorado State University.

SHAWN MARSH Associate Head Football Coach; B.A., Mesa State College; M.A., University of Northern Colorado.

CURT MARTIN (1995), Director, Financial Aid; B.A., University of Nebraska; M.B.A., Mesa State College.

KAREN MCCLELLAND (2006), Professional Staff Assistant, Human Resources; B.A., Mesa State College.

HEATHER MCKIM (2008), Senior Research Analyst; B.S., Wichita State University.

SEAN MCKINNEY (2008), Assistant Coach, Baseball; B.A., Mesa State College.

KATHRYN MCMILLAN (2010), MAVcard Office Coordinator; B.A., University of Puget Sound.

MIKE MEENS (2006), Acting Senior Systems Administrator; B.S., Mesa State College.

BREANNE MEIER (2005), Director, Student Life; B.S., M.B.A. Mesa State College.

JARED MEIER (2004), Director, Admissions; B.B.A., M.B.A., Mesa State College.

MARIANNE MERCADO (2006), Financial Aid Counselor; B.F.A., University of Colorado; A.A.S., Colorado Institute of Art.

MILLIE MOLAND (2005), Director, Advising and Academic Services; B.A., Minot State University; M.S.A., Central Michigan University.

KOREEÑA MONTOYA (2011), Advisor, Student Support Services (TRiO); B.S. Mathematics (Secondary Education), B.A. Mexican American Studies, University of Northern Colorado.

FRANCESCA MORALES (2005), Mentor for First Generation Students; A.A., Mesa State College.

OLIVIA MORGAN (2009), Assistant Coordinator, Testing Services; B.A., St. John's College; M.A., Reed College.

KRISTIN MORT (1995), Senior Women's Administrator and Head Coach, Softball; B.A., Mesa State College; M.A., Colorado Christian University.

BRYCE NEWELL (2010), Admissions Counselor-California, B.A. Mesa State College; M.S. Humboldt State University.

DANA NUNN (2005), Director, Media Relations.

KELLY O'CONNELL (2006), Institutional Research Analyst; B.S., Mesa State College.

CRAIG ORCHOLSKI (2010), Area Coordinator of Albers, Elm, Monument and Rait Halls and the Four Point Apartments; B.S., University of Wisconsin - La Crosse; M.S., Western Illinois University.

LAURA OUSLEY (2007), Admissions Counselor; B.A., University of Colorado.

JESSICA OVIATT (2009), Special Projects Coordinator, Academic Affairs; B.A., University of Massachusetts-Boston.

BRIAN PEARSON (2006), Head Coach; Swimming; B.S., University of Wyoming.

RENAE PHILLIPS (2008), Professional Staff Assistant to the Director of Health Sciences; B.S., Mesa State College; M.S., Western Illinois University.

CHARLES PIPHER (2006), Head Coach Wrestling; B.S., Colorado State University-Pueblo.

JOSHUA PITTMAN (2007), Head Coach, Men's Soccer; B.B.A., University of Massachusetts-Amherst; M.Ed., East Stroudsburg University of Pennsylvania.

SYLVIA RAEL (2006), Head, Public Services Librarian; B.A., Washington State University; M.L.I.S., Louisiana State University.

THOMAS RAMLER (2010), Environmental & Custodial Services Manager.

JOE RAMUNNO (1997), Head Coach, Football; B.A., University of Wyoming; M.A., University of Northern Colorado.

CREE ROBERTS (2008), Academic Advisor; A.A., Colorado Mountain College, B.A., Mesa State College; M.A., Kansas State University.

DARIN ROBIDOUX (2001), Assistant Coach, Football; B.B.A., Mesa State College; M.A., University of Northern Colorado.

PAUL ROLLAND (1998), Reference/ Electronic Resources Librarian; B.A., M.Ed., University of Florida; M.L.S., Florida State University.

BRYAN ROOKS (2003), Acting Assistant Athletic Director of Compliance and Eligibility; B.S., Mesa State College.

ERIN ROOKS (2001), Special Projects Coordinator, Academic Affairs; B.B.A., Mesa State College.

KRISTYN ROSE (2007), Coordinator, Distance Education; B.S., M.A.Ed., Texas Tech University; Ph.D., Walden University.

ROBYN ROSE (2010), Coordinator, Tutorial Services; B.A., Mesa State College; M.A., New Mexico Highlands University.

KRYSTAL RYAN (2008), Professional Staff Assistant to the President; B.B.A., Mesa State College.

JANE SANDOVAL (2005), Coordinator, Entrepreneurial Business Institute.

WILLIAM SANDS (2009), Director, Montfort Human Performance Lab; B.S., University of Wisconsin-Oshkosh, M.S., Ph.D., University of Utah.

EMILY SANGER (2009), Manager, Wellness and Group Fitness; B.S., Truman State University; M.E., Stephen F. Austin State University.

KENNETH SCHLAGEL (2010), Admissions Counselor-Denver, B.B.A., Mesa State College.

SHERRY SCHREINER (2009), Director, Developmental Programs; B.S., Colorado State University; M.A., University of Northern Colorado.

SALLY CROW SCHUMAN Assistant Director Financial Aid, BA, University of Montana.

GENE SEITZ (2006), Associate Director, Computing and Networking Systems; B.A., Mesa State College.

TROY SEPPELT (2011), Director of Residence Life; B.A., University of Minnesota - Morris; M.A., Western Michigan University.

ANDREW SHANTZ (2000), Assistant Coach, Basketball; B.A., Mesa State College.

ERIN SHARPE (2008), Head Coach, Women's Soccer; B.S., Santa Clara University.

ABBY SIMPSON Head Womens Lacrosse Coach.

JEREMY SMITH (2007), Graphic Artist and Creative Project Coordinator; B.A., Mesa State College.

WILLIAM STAFFORD (2003), Assistant Coach, Football; B.A., Colorado State University.

A. J. STEVENS (2009), Head Coach, Men's Lacrosse; B.S., University of Massachusetts-Dartmouth.

KRISTA SUMMERS (2008), Admissions Counselor-Denver; B.S., Colorado State University.

WHITNEY SUTTON (1996), Director, Budgeting; B.S., Mesa State College.

JACOB SWINN (2011), Aquatics Director; B.A., University of Oregon; M.A., University of Southern California.

RICK TAGGART (2010); Acting Executive Director of Marketing and Student Recruitment; B.S., Syracuse University; M.B.A., University of Phoenix.

JOSEPH TAYLOR (2005), Controller; B.A., Fort Lewis College.

HOLLY TEAL (1996), Registrar; B.S., Mesa State College; M.S., Regis University.

CHAD THATCHER (2002), Outdoor Program Coordinator; A.A., Clark College; B.A., M.Ed., Portland State University.

KATRICE THOMAS (2007), Head Coach, Track and Field; B.A., Colorado State University.

LILLIAN VIGIL (2011) Acting Assistant Coordinator, Testing Services; B.S., Colorado State University.

DEREK WAGNER (2009), Director, Special Projects and Strategic Initiatives; B.A., Mesa State College.

JAMES WALKER (2006), Head, Technical Services, Library; B.A., M.S., Loma Linda University; M.S.L.S., University of Southern California.

ROGER WALTERS (2009), Head Coach, Women's Basketball; B.A., Mesa State College.

ERIN WARD (2009), Academic Advisor; B.A., University of Southern Indiana; M.Ed., Kent State University.

NATHAN WATCHMAN (2006), Assistant Director of Residence Life - Operations; A.S., B.A.S., B.B.A., Mesa State College.

THOMAS WATSON (2002), Information Technology Specialist; B.S., U.S. Coast Guard Academy.

CHRISTINA WEISER Assistant Softball Coach; B.S., Regis University, Denver; M.S., California University of Pennsylvania.

MICHAEL WELLS (2009), Director, Campus Recreation Services; B.S., Black Hills State University; M.S., University of Northern Colorado.

CHRIS WILCOX (2009), Student Services Coordinator, Montrose Campus; B.S., Embry-Riddle Aeronautical University; M.S., Troy University.

JERMAINE WILLIAMS (2009), Event Management Coordinator; B.S., Greenville College.

TERRI WISE (1993), Coordinator, Testing Services; A.A., Mesa State College, B.S., Colorado Christian University.

KENNILYN WRIGHT (1998), Assistant Director of Residence Life; Certificate, Hollywood Beauty Academy; A.A., Eastern Arizona College; B.A., Mesa State College; M.A., Adams State College.

MIRL WYTHE (2007), Admissions Counselor-Processing; B.S., University of Maryland; M.A., Institute of Transpersonal Psychology; Ph.D., Summit University.

Emeritus Faculty and Visiting Professors

Colorado Mesa University Recent Emeritus Faculty

(Date in parentheses indicates year of retirement. In accord with Faculty Senate action, this list is limited to faculty awarded emeritus status in the past ten years.)

CHARLES BAILEY, B.A., M.A., Professor of Mathematics (2005).

RICHARD BALLARD, B.A., M.S., Ph.D., Professor of Biology (2008).

CATHY BARKLEY, B.S., M.S., Ph.D., Professor of Mathematics (2010).

RICHARD BERKEY, B.A., M.A., Associate Professor of English (2010).

JEFF BRIGHAM, B.A., M.A., Ed.D., Professor of Teacher Education (2003).

JAMES BROCK, B.S., M.S., Associate Professor of Physical Sciences (2010).

ESTHER BROUGHTON, B.A., M.S., Ph.D., Professor of English (2008).

JAMES BUCKLEY, C.P.A., B.A., M.S., Professor of Accounting (2006).

TESS CARMICHAEL, B.A., M.A., Assistant Professor of Speech and Mass Communication (2003).

HAROLD DAVENPORT, B.S., M.S., Ph. D., Professor of Mathematics (2010).

FORBES DAVIDSON, B.S., Ph.D., Professor of Biological Sciences (2011).

MATTS DJOS, B.A., M.A., Ph.D., Professor of English (2006).

MICHAEL GERLACH, B.S., M.A., Ph.D., Professor of Theatre (2002).

JUDY GOODHART, R.N., B.S., M.S.N Professor of Nursing (2009).

CHAD LEE GRABOW, B.S., M.S., M.A., Ph.D., Professor of Computer Information Systems (2006).

THOMAS GRAVES, B.A., M.A., Ed.D., Professor of Psychology (2007).

DONNA HAFNER, B.A., M.A.T., Associate Professor of Mathematics (2001).

CHARLES HARDY, B.A., M.F.A., Professor of Art (2006).

BETTY HARRIS, B.S., M.S., Professor of Accounting (2004).

FORREST HOLGATE, B.A., Assistant Professor of Applied Technology (2001).

SUZANNE JANDRIES, B.A, M.F.A., Professor of Art (2004).

ROBERT JOHNSON, B.A., M.A., Ph.D., Professor of English (2010).

DENISE MCGINNIS, B.Ed., M.B.A., Ph.D., Professor of Computer Information Systems, Business (2005).

BETSY MCLOUGHLIN, B.A., M.A., Ph.D., Associate Professor of Spanish (2006).

PRASANTA MISRA, B.S., M.S., Ph.D., Professor of Physics (2005).

LAVERNE MOSHER, B.A., M.F.A. Professor of Art (2009).

TIMOTHY NOVOTNY, B.A., B.S., M.A., M.S.B.A., Ph.D., Professor of Mathematics and Statistics (2008).

KAREN PERRIN, B.S., M.S., Associate Professor of Physical Education (2002).

DAVID REES, B.S., M.S., Ph.D., Professor of Economics (2004).

JANINE RIDER, B.A., M.A., Ph.D., Professor of English (2007).

CHERYL ROY, B.S., M.S.N., Associate Professor of Nursing (2010).

JAMES RYBAK, B.S.E.E., M.S., Ph.D., Professor of Engineering and Mathematics (2005).

ANN SANDERS, B.A., M.A., Associate Professor of Theatre and Dance (2006).

ROBERT SOWADA, B.A., M.A., Associate Professor of Foreign Language (2002).

GENE STARBUCK, B.A., M.A., Ph.D., Professor of Sociology (2006).

BARRY THARAUD, B.A., M.A., Ph.D., Professor of English (2002).

CYNTHIA THOMAS, B.S.N., M.S., Ph.D., Associate Professor of Nursing (2011).

KATHLEEN R. TOWER, B.M.E., M.A., Ph.D., Professor of Library Science (2006).

SUSAN YEAGER, B.A., M.S., PE.D., Professor of Kinesiology (2011).

MARY ZIMMERER, B.A., M.S., Ph.D., Professor of Business (2007).

Colorado Mesa University Visiting Professors

Aspinall Professors

CARL ABBOTT (1985), History; B.A., Swarthmore College; M.A., Ph.D., University of Chicago.

STEPHEN BENNET (1995), History; B.S., M.S., Illinois State University, Normal; Ph.D., University of Illinois, Urbana-Champaign.

WILLIAM BEEZLEY (2008), History; B.A., Chico State College; M.A., Ph.D., University of Nebraska.

ALAN BLOCK (1996), History, Political Science, and Public Affairs; A.B., Ph.D., University of California-Los Angeles; M.A., California State University.

PETER BOYLE (1989), History and American Studies; M.A., Glasgow University, Scotland; Ph.D., University of California, Los Angeles.

GEORGE BROWDER (2001), History; B.S., Memphis State University; M.A., Ph.D., University of Wisconsin at Madison.

WILLIAM CHALOUPKA (2009), Political Science; B.S., University of Nebraska; M.A., Arizona State University; Ph.D., University of Hawaii.

WALKER CONNOR (1992), Political Science; John R. Reitmayer Professor of Political Science, Trinity College, Hartford, Connecticut.

THOMAS DAVIS (2007), History; A.B., Fordham University; M.A., Ph.D., Columbia University in the City of New York; J.D. State University of New York at Buffalo.

ROGER DINGMAN (1991), History; B.A., Stanford University; M.A., Ph.D. Harvard University.

RICHARD W. ETULAIN (2010), History; A.B., Northwest Nazarene College; M.A., Ph.D., University of Oregon; D.H.L., Northwest Nazarene University

RICHARD FUNSTON (1987), Political Science; B.A., M.A., Ph.D., University of California - Los Angeles; J.D., University of San Diego.

ANDREW GULLIFORD (1997), History; B.A., M.A.T., Colorado College; Ph.D., Bowling Green State University.

GORDON MARTIN, JR. (1998), Political Science, History, and Public Affairs; A.B., Harvard College; J.D., New York University.

THOMAS MILLINGTON (2002), Political Science; B.A., Williams College; M.A., Ph.D., Johns Hopkins School of Advanced International Study.

ROBERT MORTIMER (1986), Political Science; B.A., Wesleyan University; M.A., Ph.D., Columbia University.

WILLIAM PARRISH (2000), History, Political Science and Public Affairs; B.S., Kansas State University; M.A., Ph.D., University of Missouri.

EDWIN PERKINS (2003), History, Political Science, and Public Affairs; B.A., College of William and Mary; M.B.A., University of Virginia; Ph.D., Johns Hopkins University.

GLENDA RILEY (1993), History, Political Science and Public Affairs; Ph.D., University of Ohio.

PAMELA RINEY-KEHRBERG (1999), History; B.A., Colorado College; M.A., Ph.D., University of Wisconsin.

WILLIAM ROBBINS (1990), History; B.S. Western Connecticut; M.A., Ph.D., University of Oregon.

JEROME STEFFEN (1988), History; B.S., University of Wisconsin, Madison; M.A., Eastern Michigan University; Ph.D., University of Missouri.

JOHN WILLS, JR. (2005), History; B.A., University of Illinois; M.A., Ph.D., Harvard University.

ROBERT WESTBROOK (2004), History; B.A., Yale University; Ph.D., Stanford University.

ZACHARY SMITH (1994), History, Political Science and Public Affairs; B.A., California State University, Fullerton; M.A., Ph.D., University of California, Santa Barbara.

Cosmicos Professors

JOANNE CARLSON BROWN (1988), Religious Studies; A.B., Mount Holyoke College; M. Div., Garrett Theological Seminary; Ph.D., Boston University.

EMMANUEL FELDMAN (1987 and 1991), Religious Studies; B.S., M.A., Johns Hopkins University; Ph.D., Emory University.

DENIS HINE (1985), Religious Studies; A.B., St. Benedict's Seminary; S.T.L., S.E.O.L., Oriental Institute, Rome.

DAN MCGILL (1995), Religious Studies; B.A., Metropolitan State College; M.A., St. Thomas Seminary.

FR. THOMAS MUNSON (1990; 1992), Theology; A.B., Loyola University; Ph.L., S.T.L. West Baden College; Ph.D., University of Louvain, Belgium.

MORT PERRY (1996), Religious Studies; B.A., Rutgers University; M.A., University of Wyoming; M.Phil., Syracuse University.

FRANK ROSENTHAL (1994), Theology; Ph.D., University of Pittsburgh.

ZACHARY SMITH (1994), Aspinall Professor of History, Political Science and Public Affairs; B.A., California State University, Fullerton; M.A., Ph.D., University of California, Santa Barbara.

Campuses and Facilities

Colorado Mesa University's Main Campus encompasses 78 acres in the heart of Grand Junction, Colorado. Nestled between mountains and high-desert canyons, the area is home to some of the best outdoor recreation in the country and enjoys approximately 300 days of sunshine a year. Explore Colorado Mesa University's main campus virtually at **coloradomesa.edu/future.**

The **Tilman M. Bishop Campus,** located on Blichmann Avenue in the Foresight Industrial Park in Grand Junction, Colorado, is the result of a partnership among the College, Mesa County Valley School District 51, and area businesses. It is the main site of Colorado Mesa University's two-year division, Western Colorado Community College (WCCC). Programs at the Bishop Campus serve the technical education needs of both university and area high school students, as well as continuing/community education needs of industry and individuals.

Located at the base of the beautiful San Juan mountains, the **Montrose Campus** of Colorado Mesa University provides access to a variety of associate and bachelor degree programs in a scenic, smaller community campus setting. The Montrose Campus is located on South Cascade Avenue in Montrose, Colorado, and offers courses leading to the completion of selected associate of art (AA) degrees; bachelor of art (BA) degree completion tracks; general education classes, and selected upper-division and graduate-level classes.

The **Industrial Energy Training Center/South Campus**, located at 29 and D Roads in Grand Junction, Colorado, houses staff offices, training areas and classrooms for the electric lineworker program.

Academic Buildings

The **Academic Classroom Building (2008)** houses state-of-the-art classrooms, lecture auditoriums, small breakout rooms for student collaboration, faculty offices and features an outdoor patio as well as a coffee bar.

The **Archuleta Engineering Center (2009)**, located near the Bishop Campus in the Foresight Industrial Park, houses classrooms and offices for construction management, mechanical engineering, and machining technology programs. The center features an electrical lab, a computer lab and 9,200 square-feet of high bay learning labs.

Building B (1997), located on the Bishop Campus, houses WCCC student service offices, Chez Lena restaurant, and instructional space for culinary arts, computer-aided design, P.O.S.T. Academy and high school programs.

The **Fine Arts Building (2002)**, provides studio laboratories, offices, and classrooms for studio art, graphic design and mass communication. This facility has a large covered outdoor work areas for ceramics kilns and a bronze foundry. A state-of-the-art television production studio is part of the mass communication facilities. The building design allows viewing of the studio activities from the hallways. It is also home to KRMJ-TV, the Grand Junction affiliate of Rocky Mountain PBS.

Houston Hall (1940), the first permanent building constructed on CMU's main campus, was renovated and expanded in 2010-2011 and includes classrooms and computer laboratories where a

variety of subject areas are taught such as humanities and social and behavioral sciences.

The **Moss Performing Arts Center (2002, 2009),** added a 300-seat recital hall, a 150-seat experimental theatre, choral and instrumental rehearsal rooms, dressing rooms, offices, and music practice rooms to the former Walter Walker Fine Arts Center (1969). The south side of the building is home to classroom, office, and performance space for theatre programs. This portion of the building features a 605-seat theatre with fly loft and modern drama lighting systems. A three-story addition completed in 2009 includes a scene shop, a costume shop, and a dance studio.

The Maverick Center (2010) houses classroom and laboratories for health sciences and kinesiology programs, intercollegiate athletic facilities, and campus recreation facilities. Included in the Maverick Center are:

El Pomar Natatorium, one of the premier aquatic facilities in the Western United States, featuring a 50-meter competition pool that is ten lanes wide and eight feet deep, with two movable bulkheads. A diving well includes a pair of one- and three-meter boards. The natatorium also features water agitators and 3M sparger; a state-of-the-art Colorado Time Systems with speedlights and aqua-grip touch pads; Paragon sand top starting platforms with quickset anchors; a 21-foot by 10-foot digital display system; 22 loudspeakers that surround the pool; and 750 permanent balcony seats.

The **Hamilton Recreation Center** consists of a large fitness/strength training area equipped with weights and cardiovascular machines, a recreation gymnasium for intramural sports, two championship racquetball/handball/wallyball courts, an indoor track, a 28-foot high climbing wall, and babysitting services.

The **Sports Pavilion (2009)** is a 45-foot-tall 13,000 square-foot structure, and includes heating and air conditioning for seasonal weather. It is located south of the football/softball fields and is venue to several indoor sport activities during inclement weather.

The Monfort Family Human Performance Lab, is an integrative multi-use laboratory that features state-of-the art equipment and provides advanced physiological and biomechanical performance and wellness testing for students, faculty, staff and community members.

The Roe F. Saunders Field House, originally constructed in 1968 and expanded in 1996, provides facilities for a variety of physical education and recreation activities and includes **Brownson Arena**, a 2000-seat arena that surrounds the **Wayne Nelson Court** and is home to Colorado Mesa University's basketball and volleyball teams.

The north end of the Maverick Center complex includes the **Elliott Tennis Center** and **Walker Field Stadium,** home to Maverick tennis, soccer, and lacrosse. Immediately west of the complex are physical education and practice athletic fields, the **Bus Bergman Field,** and a softball stadium/field.

The **John U. Tomlinson Library (1986),** expands the traditional library concept to include physical and electronic holdings and circulation of 365,000 library materials that are available in a variety of formats. About 23,000 journal titles are available via the library website and more than 20 million items are available through Prospector.

Wubben Hall and Science Center
Wubben Hall (1962, 2010) contains classrooms, laboratories, offices and storage areas for physical and life sciences, mathematics and computer sciences. A special feature is the Weldon Lecture Hall that seats 100 persons. This building was completely remodeled in 1998 and connected to the Science Center. In 2010, a three-story, 31,900 square-feet addition to the west of the existing facility expanded classroom and research space for the College's science programs.

The Science Center (1996, 2010) contains modern laboratories for biology, chemistry, geology and environmental sciences. This building also contains an electron microscopy laboratory and an herbarium. A special feature is the octagonal Saccomanno Lecture Hall that seats 120 persons and has full multimedia capabilities. An attractive courtyard between this building and Wubben Hall provides space for outdoor lectures and study. There is also a rooftop greenhouse that houses tropical vegetation for biology students to study.

The **Kerry Youngblood Building (1992)**, located on the Bishop campus, houses WCCC administrative offices and classrooms and laboratories for automotive and diesel technology, welding, process systems technology and technology integration.

Administrative Buildings

The **Admissions Welcome Center (2008)** houses offices for admissions staff responsible for assisting students with a smooth transition into their higher education experience. The Welcome Center offers multimedia meeting spaces for visitation programs and campus tours.

The **Campus Services Center (2007)** houses offices for purchasing, warehouse/receiving, and mailroom staff as well as offices, shops and storage areas for facilities staff.

Residence Life (2008), located directly across from the Admission Welcome Center and next to the Outdoor Program (OP), houses staff responsible for the on-campus living experience. In addition to providing educational events and activities, Residence Life helps to create safe, positive communities; offers leadership opportunities; and manages student behavioral concerns.

Lowell Heiny Hall (1967), is a four-level building housing faculty and administrative offices remodeled in 1986-87. The garden level/first floor serves as a hub for student services including the Registrar's Office, Financial Aid, Business Office, and the Advising and Career Center. The west side of the building features the **Gordon Gilbert Amphitheater** (dedicated 2009), an outdoor gathering/classroom space.

The **Outdoor Program (OP) Office** is Colorado Mesa University's headquarters for outdoor adventure and education. Located next to Residence Life, the OP office offers a gathering space and provides equipment rentals for biking, boating, camping, mountaineering, rock climbing, skiing, snowboarding and more.

Residence Halls

Albers Hall (1935, remodeled in 2008) houses 20 residents and is Colorado Mesa University's only all-female housing facility.

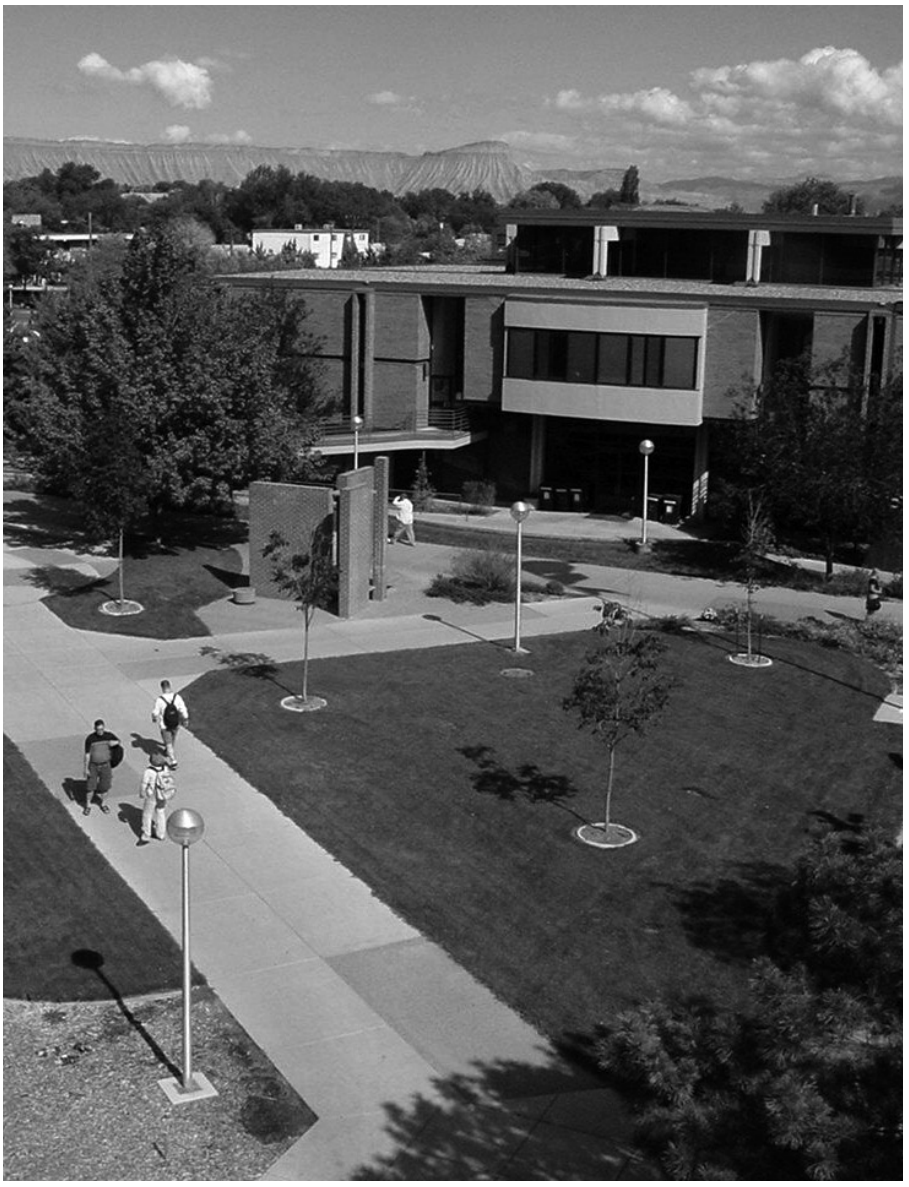
Bunting Avenue Student Housing (2011) is the University's newest residence hall. It is a co-ed, suite-style building that can accommodate up to 328 students. The building offers suites with standard double rooms, lofted doubles, singles, super single rooms.

Elm Hall (1969, remodeled in 2008, 2010), is a co-ed, suite-style building that can accommodate up to 21 residents in two suites on the second floor and 22 residents in one suite on the first floor.

Grand Mesa Hall (2006) houses 288 residents in suites with a mixture of single, super single and double bedrooms. Each suite has at least two bathrooms with separate counter and sink facilities. Suites are furnished with "bunkable" beds and movable furniture. The living area in each suite has comfortable seating and a 32" flat screen, wall-mounted television.

Monument Hall (1997) provides suite-style living. Monument Hall houses 180 residents in suites that share a bathroom. Each double-bed room is furnished with carpet and moveable furniture.

North Avenue Student Housing (2009) is configured in five or six-bed suites in the east wing and six-bed apartments in the north wing, and houses 304 residents.



Pinon Hall (1967), Rait Hall (1966) and Tolman Hall (1966) provide comfortable living quarters for 200 residents in each hall. Most rooms are doubles, but a few single rooms are available.

Walnut Ridge Apartments (1978) are furnished three- and four-bedroom units available to sophomores, juniors, and seniors.

Community & Outdoor Spaces

The **University Center** (2010) is a new two-story, 100,000 square-foot building and four-level parking structure that serves as the hub of campus life.

The new facility features expanded retail food service options; a convenience store; a coffee shop; a dining hall; a large lounge space for electronic gaming, pool tables, large screen TV's; and a Wells Fargo Banking Center. The first floor of the center also houses the MAVcard Office; an Information Desk/Parking Services customer service area; an art gallery; and a quiet lounge space with gas fireplace, couches, chairs and tables.

The center's second floor houses offices for The Criterion newspaper, KMSA 91.3FM radio, the Campus Design Studio; and the Center for Student Involvement that includes office and meeting spaces for Associated Student Government, Programming Activities

Council, Club Advisory Board, and the Cultural Diversity Board. The building also features a large study lounge with 24-hour access for registered students; administrative offices; a large ballroom; five meeting rooms, four of which have a small terrace facing the residence hall quad; and a large south-facing terrace.

The **Academic Quad** is the quadrangle surrounded by Wubben Hall to the north, Moss Performing Arts Center to the east, Houston Hall to the south, and Tomlinson Library to the west. Throughout the year it is used as one of the campus' major corridors, and as an outdoor meeting space for various campus events and activities.

The **Elm Avenue Quad** sits between Monument Hall, the Admissions Welcome Center, and Albers Hall. This space is utilized for many student activities throughout the year including the Homecoming bonfire, Pinon Palooza, and some all-campus barbecues. Students are regularly found here playing frisbee, tossing a football, or socializing. The quadrangle/pedestrian mall features **"Where Rivers Meet" (2006),** a fountain that seeks to portray the Grand Valley's history, geography and the legacy of the junction of the Colorado and Gunnison rivers.

Delta Field is located in front of the Fine Arts Building. The space is used throughout the year for various campus activities and contains expansive fields for intramural and club sports.

The **Development Center (2004)**, located on North Avenue at College Place, houses offices, storage space and the **Little Mavericks Learning Center (2010)** which offers childcare to Colorado Mesa University students, faculty, and staff.

Glossary of Terms

ACADEMIC PROBATION - The failure of a student to meet the standards required for good standing. Student will be placed on academic probation for one semester and must maintain a 2.00 GPA or higher to avoid academic suspension.

ACADEMIC RENEWAL - Following an absence from the college of at least five years, a student may apply for "academic renewal." If approved, none of the course credits and grades earned at Colorado Mesa University prior to the five-year minimum absence will be used for meeting graduation requirements or in determining the student's grade point average.

ACADEMIC RESIDENCY - A specified minimum number of credit hours that must be earned at Colorado Mesa University to receive a degree.

ACADEMIC SUSPENSION - Denial of all registration privileges for a specified period of time (minimum one full semester) because of failure to meet minimum academic standards. Suspended students must be readmitted to the college before continuing enrollment.

ACADEMIC TERM - A period of instruction. During the fall and spring, the term is a standard 15-week semester. During the summer, various length periods of instruction are offered. The term regular semester refers to fall or spring semester.

ACADEMIC YEAR - The traditional cycle of academic terms: fall and spring.

ACCREDITATION - Certification that the university or program has met established standards and is recognized by appropriate accrediting agencies.

ADD/DROP - A period of time when students can alter class schedules by adding or dropping classes or changing sections of a course. Prior to the first day of the semester, schedule changes can be processed via the Web. Instructor signatures must be obtained beginning the first day of the classes through the specified ending date each semester.

ADMISSION - Status of students who have applied and have been accepted to the university.

ASSOCIATE'S DEGREE - Degree awarded upon satisfactory completion of a prescribed, planned program of approximately 60 credit hours. This can be completed in two years of study with an average of 15 semester hours per semester in the fall and spring terms.

AUDIT - A registration status which allows a student to attend and to participate in a course without benefit of a grade or academic credit. The "audit" status must be recorded in the Registrar's Office within the add/drop deadlines.

BACCALAUREATE DEGREE - Bachelor's degree: the traditional undergraduate degree. Awarded for completion of an undergraduate program of study, usually of 120 semester hours. This can be completed in four years of study with an average of 15 semester hours per semester in the fall and spring terms. Bachelor's degrees are comprised of general education courses, a major, and elective courses.

CAPSTONE - A course, project, paper, presentation, event, or exhibit that must be completed, usually in the senior year, before graduation. A capstone demonstrates in an integrated way everything that has been learned while pursuing a particular major.

COLLEGE OPPORTUNITY FUND (COF) - The method of funding state tax dollar support for students enrolled in Colorado public higher education via a voucher. Implemented in fall 2005, qualifying students create an account at the College Access Network into which the voucher is deposited and, upon registration by the student at a participating institution, then is transferred to the college.

CONCENTRATION - An area of interest within a major that is defined by a group of courses. Number of hours will vary by major. Concentrations are generally associated with 4 year programs (B.A., B.B.A., B.S., etc).

CONCURRENT STUDENT - A high school student who is registered for a university class.

CONTACT HOURS - The number of weekly hours student meets in a class, lab, studio, clinical, or class/lab.

COREQUISITE - Course(s) that must be taken concurrently with one or more additional courses. Subject matter often is similar or complementary.

COURSE LEVELS -
The numbering system of courses:

Developmental/Preparatory:
099 and lower
Lower Division:
100 - 199 Freshman
200 - 299 Sophomore
Upper Division:
300 - 399 Junior
400 - 499 Senior
Graduate:
500 and above

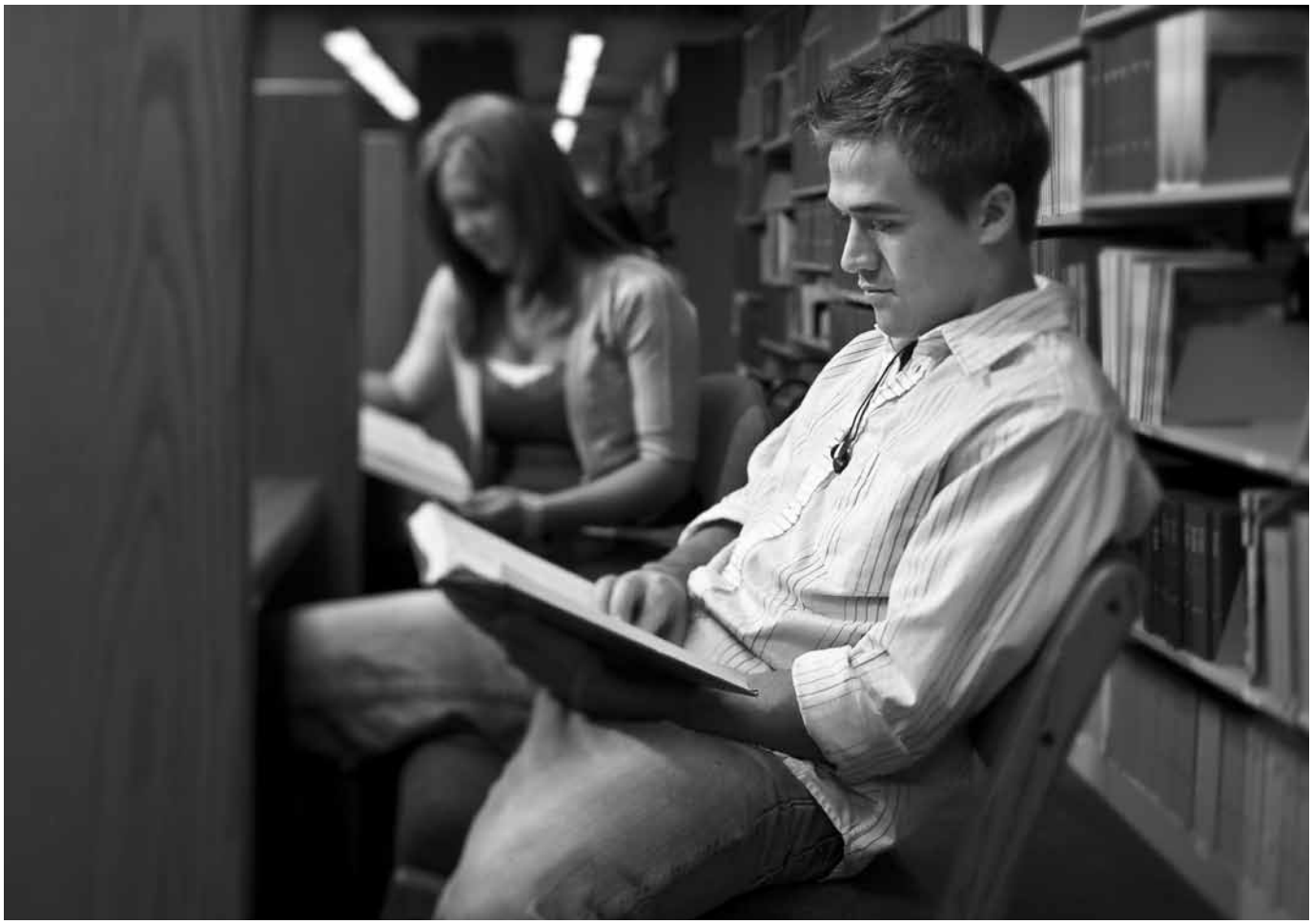
COURSE LOAD - The total number of semester hours registered for in a given academic term.

CUMULATIVE GRADE POINT AVERAGE - An average GPA calculated by dividing the total number of quality points/grade points obtained (credit hours X grade points) by the number of credit hours attempted during all academic sessions at Colorado Mesa University Grades from other institutions are not included in the calculation.

DEAN'S LIST - Recognition of students who achieve a grade point average of between 3.50 and 3.99 while enrolled for a minimum of 12 semester hours in a fall or spring semester.

DEGREE - A title which the university confers on a student who has satisfactorily completed a required course of study. Degree requirements are established by the university and departments, and are approved by the university's faculty, administration, and authorized by the Colorado Commission on Higher Education. The university offers degrees at three levels: associate, baccalaureate, and master's.

DEGREE CATEGORY - One of three degree categories offered at Colorado Mesa University that may differ in lower division requirements beyond general education. These categories include the Bachelor of Arts (B.A.), Bachelor of Science (B.S.) and Professional, Technical or Other Programs (PTO)



DISCIPLINE - A recognized subject area or field of study within which courses are structured.

DISTANCE LEARNING - Courses offered for credit by an alternative means of delivery for students who need university credit but are unable to travel to campus on a regular weekly basis (e.g. telecourses, interactive video, or online).

DOUBLE MAJOR - Completing the requirements of more than one major within the same degree designation (e.g., a Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration). A student could earn one baccalaureate degree with multiple majors (e.g., Bachelor of Arts with a double major in Psychology and Sociology). Students must meet all the requirements for the degree and for each major.

DUAL/DOUBLE BACCALAUREATE DEGREE - Completing the requirements of more than one major with different degree designations (e.g., a Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration). A student earning two baccalaureate degrees (e.g., Bachelor of Arts in History and a Bachelor of Science in Mathematics) must meet all the requirements for each degree, each major, and additional requirements found in the "Undergraduate requirements section" for the second baccalaureate.

EARNED HOURS - Credit hours earned for college-level courses (numbered 100 and above) with a passing grade.

ELECTIVES - Courses selected at a student's discretion. Electives may be partially restricted, such as a selection from a specified group of courses identified to fulfill a particular requirement or they may be "free" electives which may be selected from any course for which the student has proper prerequisites. Electives provide opportunities for students to pursue personal interest and to gain general knowledge.

EMPHASIS - An area of interest within a major that is defined by a group of courses. Number of hours will vary by major. Emphases are generally associated with 2-year programs (A.A., A.S.. etc.).

ENROLLMENT - Registration for course work and payment of fees constitutes official enrollment. For financial aid purposes, a student must enroll for 12 credit hours to be classified full-time; for other purposes, the minimum may be higher. For graduate students, a nine-hour load is typical for full-time classification.

GENERAL EDUCATION - A university-wide requirement of basic courses that form the foundation of all undergraduate degree programs.

GENERAL EDUCATIONAL DEVELOPMENT (GED) DIPLOMA - Award granted upon passing tests that measure student learning normally acquired by completing a typical high school program of study.

GOOD STANDING - A sliding scale of academic status achieved by students for semester hours attempted. Determines eligibility of students to continue to register for university course work.

GRADE IMPROVEMENT - Repeat of any course more than once for academic credit at Colorado Mesa University done so only for "grade improvement." Academic credit is awarded only once and the last grade received is the one used to compute the student's cumulative grade point average and to fulfill requirements for the degree. Some exceptions to this policy apply.

GRADE POINT AVERAGE (GPA) - A measure of a student's academic performance which is computed by dividing credit hours attempted into grade points earned to determine the mean average grade of all courses taken for credit. Does not include courses taken as pass/fail.

GRADUATE STUDENT - A student who has earned a baccalaureate degree and who is pursuing a master's degree program.

GRADUATION HONORS - Recognition of graduating students who meet the following academic criteria:

- With Distinction - Associate degree graduates with cumulative grade point averages of 3.50 to 3.74.
- With High Distinction - Associate degree graduates with cumulative grade point averages of 3.75 to 4.00.
- Cum Laude - Baccalaureate degree graduates with cumulative grade point averages of 3.50 to 3.74.
- Magna Cum Laude - Baccalaureate degree graduates with cumulative grade point averages of 3.75 to 3.89.
- Summa Cum Laude - Baccalaureate degree graduates with cumulative grade point averages of 3.90 to 4.00.

HIGHER EDUCATION ADMISSION REQUIREMENTS (HEAR) (also referred to as the pre-collegiate curriculum) - Requirements established by the Colorado Commission on Higher Education for students graduating from high school in spring 2008 or later and seeking admission to a Colorado public four-year college or university.

INDEPENDENT STUDY - An upper-division course designated by a special number within a discipline. Allows a student to pursue an individual project independently, for credit, under the supervision of an instructor. Requires consent of the instructor.

LEVELING COURSES - A set of equivalent courses for graduate students who have not completed specific undergraduate courses prior to beginning graduate study.

LOWER DIVISION COURSE - A course that carries a 100 - 199 or 200 - 299 number.

MAJOR - A set of required courses from one or more departments in a subject chosen as the student's principal field of study. Designed to provide students with the knowledge, skills, and experiences necessary to pursue a specific career and/or advanced study.

MASTER'S DEGREE - A post-baccalaureate degree. All master's degree candidates must maintain a 3.00 GPA to remain in good academic standing.

MATRICULATION - Enrollment as an admitted, degree-seeking student.

MINOR - An officially-recognized secondary field of study requiring fewer units than the major. A minor must be in an approved subject area and is less comprehensive than the major.

MULTIPLE CONCENTRATIONS - Completing the requirements of more than one concentration within the same major (e.g., Bachelor of Arts in Mass Communication with a double concentration in Print Media and Public Relations). Students must meet all the requirements for the degree, major, and each concentration.

PREREQUISITE - Requirement(s) that must be taken and passed before a higher level course may be taken. Sometimes, permission of the instructor or another requirement (such as graduate status) may be a prerequisite for a course. Prerequisites may include: (1) Course or courses that must be completed before a higher-level course may be taken, sometimes allowed by the instructor to be taken concurrently; (2) Courses outside the major department that must be completed before admission to the major; (3) Successful completion of high school courses (as in languages); (4) Minimum SAT or ACT scores or sub-scores; (5) Minimum placement test scores; or (6) Acceptance into a certain program.

PRESIDENT'S LIST - Recognition of students who achieve a grade point average of 4.00 while enrolled for a minimum of 12 semester hours in a fall or spring semester.

PRIORITY REGISTRATION - Designated period of early registration for currently enrolled students.

PROGRAM SHEET - A document listing degree requirements for graduation.

QUALITY POINTS -The number points attributed to a grade (A=4, B=3, C=2, etc.) times the number of credit hours in the course.

REGISTRAR - Office responsible for registering students into classes, maintaining academic records, and certifying degree requirements for graduation.

STUDENT CLASSIFICATION - Student level based on the number of semester hours successfully completed as follows:

0 - 30 Freshman
31 - 60 Sophomore
61 - 90 Junior
91 - above Senior

TECHNICAL CERTIFICATE - Award for the completion of technical coursework designed to train students for specific skills required for employment in various vocational occupations.

TOPICS COURSES - Courses offered from time to time that contain material of special interest within a specific discipline not considered elsewhere in the curriculum. Prerequisites vary with course material, and enrollment requires consent of the instructor.

TRANSCRIPT - An official document issued by the Registrar that lists the entire academic record of a student at the university.

TRANSFER CREDIT - Course work completed at another institution that is accepted for credit toward a degree at the university. Grades from these courses are not included in calculation of a student's cumulative GPA.

UNDERGRADUATE - A student working toward a technical certificate, an associate degree, or a baccalaureate degree.

UPPER LEVEL COURSE - A course that carries a 300 - 399 or 400 - 499 number.

Alphabetical Subject Index

SUBJECT **PAGE**

SUBJECT **PAGE**

Campus Directory

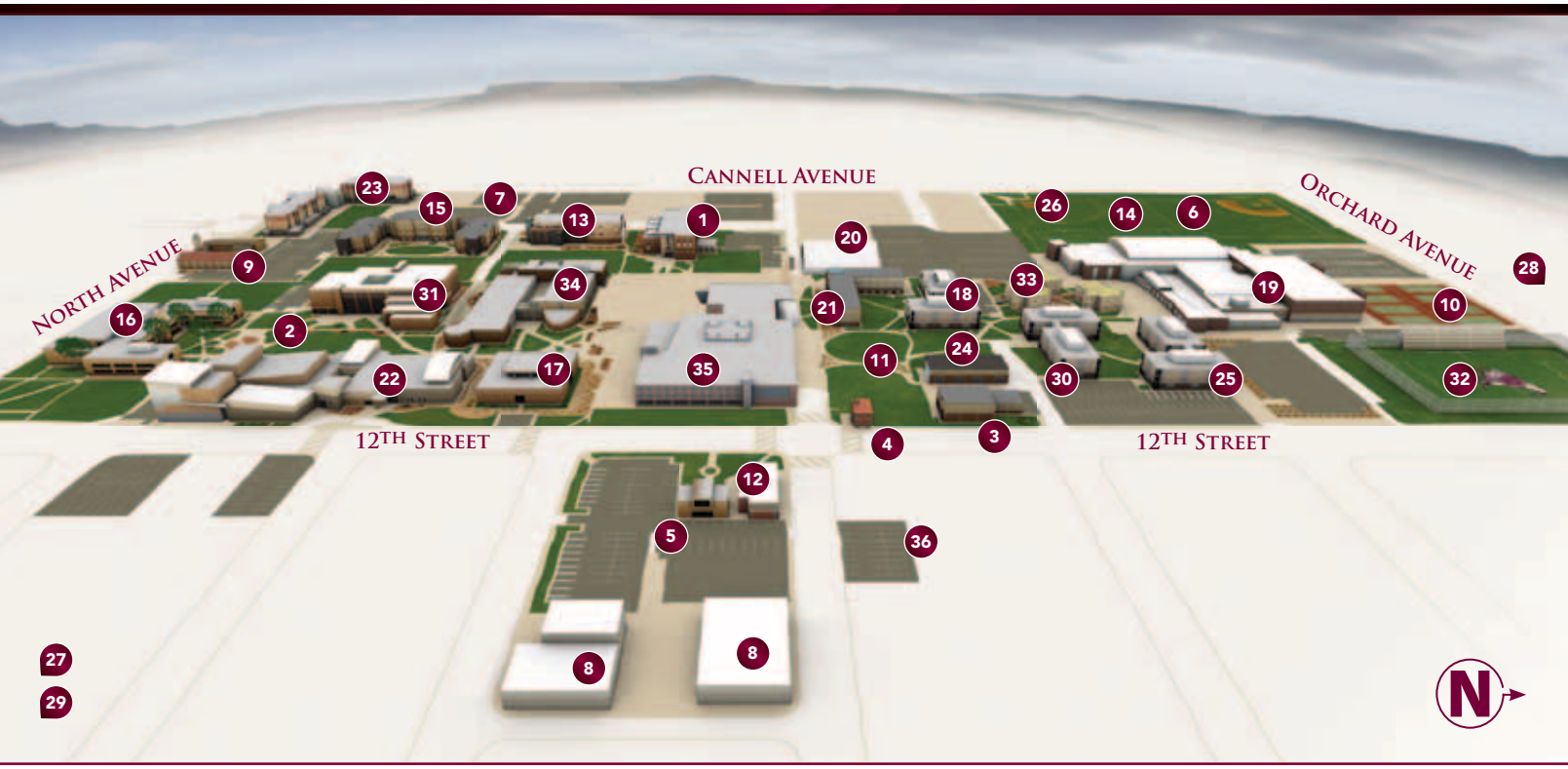
The campus operator can be reached during business hours at 970.248.1020 or toll-free 800.982.MESA.

OFFICE	LOCATION	EXTENSION
Academic Affairs	LHH 209	248.1881
Academic Departments		
Main Campus:		
Art	FA 200	248.1833
Biological Sciences	WS 232	248.1993
Business	ACB 309	248.1778
Computer Science, Mathematics, & Statistics	WS 132	248.1407
Health Sciences	S 169	248.1398
Kinesiology	S 237	248.1635
Languages, Literature, & Mass Communication	LHH 445	248.1687
Music	MPAC 113	248.1233
Physical & Environmental Sciences	WS 232	248.1993
Social & Behavioral Sciences	H 212G	248.1696
Teacher Education	ACB 109	248.1786
Theatre Arts	MPAC 113	248.1233
Montrose Campus	MONT	970.249.7009
Bishop Campus		
Western Colo Comm Collge	2508 Blichmann	255.2600
Academic Services	LHH 127	248.1177
Advising & Career Center	LHH 127	248.1177
Accounting Office/Business Office	LHH 101	248.1567
Admissions Office	AO	248.1875
Alumni Association	1450 N 12th	248.1525
AmeriCorps	H 127	248.1196
Associated Student Government	UC 212	248.1762
Athletics	S 229	248.1503
Behavioral Clinical Services	1005 N. 12th #105	241.6500
Bookstore	UC 130	248.1422
Box Office	MPAC	248.1604
Campus Dining	UC 115	248.1742
Community Education Center	BISH B 185	255.2800
Computer Lab, Library	L 120	248.1885
Criterion Newspaper	UC 211	248.1255
Educational Access Services	H 108	248.1856
Entrepreneurial Business Institute	ACB	248.1778
Extended Campus Program	CSA 108	248.2398
Facilities Services	FS	248.1465
Financial & Administrative Svcs	LHH 252	248.1804
Financial Aid	LHH 116	248.1396
CMU Foundation	1450 N 12th	248.1295
MA in Ed Program	ACB 109	248.1786
MBA Program	ACB 309	248.1778
Graduation Information	LHH 121	248.1555
Hamilton Recreation Center	MC 136	248.1592
Honors Program	LHH453	248.1385
Human Resources	LHH 237	248.1820
Industrial Education Training Cntr	2980 D Rd.	248.1372
Institutional Research & Assessment	LHH 221	248.1884
KMSA/91.3FM	UC 201-209	248.1240
Library	L	248.1862
Little Mavs Learning Center	DEVCTR	248.1318
Toddler Tech	DEVCTR	248.1086
MAVcard Office	UC 106	248.1059
Media Services	L 132	248.1734
Mesa@Night	LHH 201	248.1232
Outdoor Program	OP	248.1428
Parking Services	UC 106 D & E	248.1919
Police/Public Safety, Non-Emergency (GJPD Substation)	UC 110	242.6707
President's Office	LHH 301	248.1498
Public Relations, Mrktg/Publications	LHH 205	248.1412
Regional Outreach	LHH 107	248.1942
Registrar's Office	LHH 121	248.1555
Residence Life	SLC 100	248.1536
Residence Halls:		
Grand Mesa		248.2170
Mary Rait		248.2151
Monument		248.2160
North Avenue		248.2180
Pinon		248.1793
Tolman		248.2154
Walnut Ridge Apartments		248.2190
Student Services	LHH 107	248.1366
Student Orientation	AO	248.1875
Student Health Center	1060 Orchard, Ste O	256.6345
Testing Center	H 125	248.1260
Transcript Request	LHH 121	248.1555
Transfer Services	AO	248.1232
Tuition Classification Officer	AO	248.1458
Tutorial Learning Center	H 110	248.1392
University Center Information Desk	UC 106 A	248.1758
WCCC Student Services	BISH B	255.2670

Building Legend

A ..... Albers Hall
ACB ..... Academic Classroom Bldg
AO ..... Admissions Welcome Center
BISH ..... Tilman M. Bishop Campus
DEVCTR ..... Development Center
FA ..... Fine Arts
FS ..... Facilities Services
H ..... Houston Hall
IETC ..... Industrial Educ Training Center
L ..... Tomlinson Library
LHH ..... Lowell Heiny Hall
MC ..... Maverick Center
MAVP ..... Maverick Pavilion
MONT ..... Montrose Campus
MPAC ..... Moss Performing Arts Center
OP ..... Outdoor Program Office
S ..... Saunders Field House
SHC ..... Student Health Center
SLC ..... Student Life Center
UC ..... University Center
WS ..... Wubben Hall and Science Center

MAIN CAMPUS



Building (code)	Number
Academic Classroom Building (ACB)	1
Academic Quad	2
Admissions Welcome Center (AO)	3
Albers Hall (A)	4
Alumni Association (A/F)	5
Bergman Practice Field	6
Bunting Hall (BH)	7
Campus Services, Facilities (CSA)	8
Mail Room, Purchasing, Maintenance Shops	
Development Office (DEVCTR)	9
Little Mavericks Learning Center	
Development Office (A/F)	5
Elliott Tennis Complex	10
Elm Avenue Quad	11
Elm Hall (EH)	12
Fine Arts Building (FA)	13
Football Practice Field	14
Foundation (A/F)	5
Four Point Apartments	36
Grand Junction Police Substation (UC)	35
Grand Mesa Hall (GMH)	15
Houston Hall (H)	16
Educational Access Services (EAS), Testing & Prometric Center, Tutorial Learning Center (TLC)	
Lowell Heiny Hall (LHH)	17
Advising & Career Center, Business/Accounting Office, Financial Aid, Human Resources, Registrar's Office, Student Services, President's Office	
Mary Rait Hall (MRH)	18
Maverick Center (MC)	19
Brownson Arena, El Pomar Natatorium, Hamilton Recreation Center, Monfort Family Human Performance Labs, Saunders Field House (S)	
Maverick Pavilion (MAVP)	20
Monument Hall (MH)	21
Moss Performing Arts Center (MPAC)	22
Box Office, Mesa Experimental Theatre (MET), Recital Hall, Robinson Theatre	
North Avenue Hall (NAH)	23
Outdoor Program	24
Pinon Hall (PH)	25
Residence Life Center (RL)	24
Softball Stadium	26
Stocker Stadium	27
Student Health Center	28
Suplizio Field	29
Tolman Hall (TH)	30
Tomlinson Library (L)	31
Walker Field Stadium	32
Walnut Ridge Apartments (WR)	33
Wubben Hall and Science Center (WS)	34
University Center (UC)	35
Art Gallery, Ballroom, Bookcliff Café, Center for Student Involvement, CMU Bookstore, Dining Hall, Game Room, MAVcard Office, Parking Services, Wells Fargo Bank	

ACADEMIC AFFAIRS

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COLORADO MESA UNIVERSITY

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