COLORADO MESA UNIVERSITY

CATALOG

2014 - 2015

coloradomesa.edu/academics

2014-2015 Academic Calendar

Summer Semester 2014

May 19.....First day of classes for First (4-week) Session
May 26.....Memorial Day observance – NO CLASSES
June 12.....Final exams and last day of May session
June 16.....First day of classes for Second (4-week) and 7-week Sessions
July 4 .....Independence Day Holiday – NO CLASSES
July 10.....Final exams and last day of June (4-week) Session
July 14.....First day of classes for Third (3-week) Session
July 31.....Final examinations for Third (3-week) and 7-week Sessions
July 31.....Summer Sessions end

Fall Semester 2014

August 4.....Residency petitions due to Tuition Classification Officer (Admissions Office)
August 18.....First day of classes
September 2.....Last day to add or drop a full semester class
September 2.....Fall census – date after which credit hours are counted in COF attempted hours
September 8.....Late Start session begins
September 15.....Deadline for filing Intent to Graduate Form with Registrar's Office for spring and summer graduates
October 10.....Fall Break – NO CLASSES
October 13.....Last day to withdraw from full semester classes with a grade of "W"
October 13.....Second module classes begins
October 27.....Priority registration for spring 2014 begins
November 24-28.....Thanksgiving Holiday – NO CLASSES
December 8-11 .....Final examinations
December 11.....Fall semester ends
December 12.....Commencement

Spring Semester 2015 (including January Term)

January 2.....Residency petitions due to Tuition Classification Officer (Admissions Office)
January 2-16.....January Term
January 19.....Martin Luther King, Jr. Day – NO CLASSES
January 20.....First day of classes
February 4.....Last day to add or drop a full semester class
February 4.....Spring census – date after which credit hours are counted in COF attempted hours
February 9.....Late Start session begins
February 15.....Deadline for filing Intent to Graduate Form with Registrar's Office for fall graduates
March 16.....Last day to withdraw from full semester classes with a grade of "W"
March 16.....Second module classes begin
March 23-27.....Spring Break – NO CLASSES
March 30.....Priority registration for summer and fall 2014 begins
May 11-14.....Final examinations
May 14.....Spring semester ends
TBA.....Commencement

Colorado Mesa University

2014-2015 Catalog

If you need to request this information in an accessible format (Braille, digital, or large print) please contact the CMU Marketing Office at **marketing@coloradomesa.edu** or **970.248.1412**.

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/index.html

ACCREDITED
The Higher Learning Commission
MEMBER
The Higher Learning Commission
NCA North Central Association
For more information: www.ncahlc.org

Colorado Mesa University is accredited by and a member of The Higher Learning Commission.

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 56, 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 116. Courses that fulfill the CMU general education degree requirements are listed on page 53.

Step 5: Finally, once you've reviewed the programs offered, see page 32 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 Center to meet with a academic 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 116.)
- Review degree requirements and general education courses beginning on page 47.

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. After a 2012 amendment, the role & mission is:

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 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 Mission Statement

Committed to a personal approach, Colorado Mesa University is a dynamic learning environment that offers abundant opportunities for students and the larger community to grow intellectually, professionally, and personally. By celebrating exceptional teaching, academic excellence, scholarly and creative activities, and by encouraging diversity, critical thinking, and social responsibility, CMU advances the common good of Colorado and beyond.

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 and a member of The Higher Learning Commission:

higherlearningcommission.org or
230 South LaSalle Street, Suite 7-500
Chicago, IL 60604-1413; 800.621.7440;
312.263.0456; info@hlcommission.org

Various programs at Colorado Mesa University are accredited and/or approved by appropriate state and national agencies:

- Athletic Training: Athletic Training Program: Commission on Accreditation of Athletic Training Education;
- Music: National Association of Schools of Music;
- Nursing: 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. National League for Nursing Accrediting Commision (associate; candidate at the PN level).
- Paramedic: Commission on Accreditation of Allied Education Programs;
- Radiologic Technology: Joint Review Committee on Education in Radiologic Technology;
- Teacher Education: Approved by the Colorado Department of Higher Education and the Colorado Department of Education to prepare teachers for licensure application.
- Transportation Services (at WCCC): National Automotive Technicians Education Foundation.

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 8am to 5pm, 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."

Colorado Mesa University expects all members of the campus community to uphold the highest standards of civil and ethical conduct and to promote a culture of respect and inclusiveness. For more information on these expectations, go to http://www.coloradomesa.edu/trustees/documents/SafetyResolution.pdf.

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 and doctoral degrees. 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.

Graduate degrees offered by Colorado Mesa University are:

- Master of Arts (MA) in Education
- Master of Business Administration (MBA)
- Master of Science in Nursing (MSN)
- Doctorate of Nursing Practice (DNP)

Baccalaureate degrees offered are:

- Bachelor of Arts (BA)
- Bachelor of Applied Science (BAS)
- Bachelor of Business Administration (BBA)
- Bachelor of Fine Arts (BFA)
- Bachelor of Science (BS) and
- Bachelor of Science in Nursing (BSN)

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 Boulder, students can complete a Bachelor of Science in Mechanical Engineering from the University of Colorado 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 (AA, AS) 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 AA and AS 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 (AAS) degrees are offered in a variety of technical and vocational programs. AAS programs average two years in length.

Technical certificates are normally chosen by students whose immediate plans are a career in a technical area. They are typically comprised of lower division (1xx-2xx) courses. While the length may vary, these programs are usually about one-year long and are designed to train for specific skills required for employment.

Professional certificates are comprised of upper division (3xx-4xx) courses. For a student to attempt a Professional Certificate after the student has earned a baccalaureate degree, the student must be admitted to study as a post-baccalaureate student or as a graduate student.

Graduate certificates contain graduate level (5xx-7xx) courses. A student must be admitted as a graduate student to attempt a graduate certificate.

Non-Credit Continuing Education Courses

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				
		Certificate	Associate	Baccalaureate	Graduate	Minor
NOTE: Students should consult the Financial Aid Office for eligibility requirements of undergraduate and graduate certificates.						
Accounting	Concentrations: General Accounting; Public Accounting			BS	3+2 Program: BS + MBA See Business Admin	M
Addiction Studies						M
Agriculture Science			AS			
Administrative Office Technology		TC	AAS			
Applied Mechanical Engineering			AAS	BS		
Archaeology						M
Art	Concentrations: Art History; Studio Art			BFA		M
	K-12 Education Licensure (see Teacher Education below)			BFA		
Athletic Training				BS		
Baking and Pastry		TC	AAS			
Biological Sciences				BS		M
	Secondary Education Licensure (see Teacher Education below)			BS		
Business Administration	Concentrations: Business Economics; Emerging Markets; Energy Management/Landman; Entrepreneurship; Finance; Hospitality Management; Human Resource Management; Information Systems; Insurance; Management; Managerial Informatics; Marketing			BBA		M
Business Administration				BAS	MBA 3+2 Programs: BS, Construction Manage-ment + MBA; BS, Accounting + MBA; BBA, Finance + MBA	
Chemistry				BS		M
Classical Studies						M
Computer Information Systems				BS, BAS		M
Computer Science				BS		M
Construction Management				BS	3+2 Programs: BS, Construction Manage-ment + MBA	
Construction Technology	Emphases: Craft; Supervision Note: Construction Technology-Craft is inactive for 2014-15 academic year.	TC	AAS			
Criminal Justice				BA		M
Criminal Justice	POST		AAS	BAS		
Culinary Arts		TC	AAS			
Dance						M

PROGRAMS OF STUDY		LEVEL OF AWARD				
		Certificate	Associate	Baccalaureate	Graduate	Minor
Decision Support Systems	(see Computer Information Systems)	PC				
Early Childhood Education	Emphases: Director; Teacher	TC				
Economics				See Business Admin		M
Education (see also Teacher Education)	Cognates: Educational Leadership; English for Speakers of Other Languages; Exceptional Learner; Initial Teacher Licensure ; Teacher Leader;				MA, GC	
Electric Lineworker		TC				
Emergency Medical Technician	Emphases: Basic	TC				
	Emphasis: Paramedic Note: Paramedic programs are inactive for the 2014-15 academic year.	TC	AAS			
Energy Management/ Landman		PC		See Business Admin		
Engineering	Mechanical Engineering delivered in partnership by CMU with the University of Colorado Boulder; degree awarded by University of Colorado Boulder (also see Mechanical Engineering below)					
English	Concentrations: Literature; Writing			BA		M
	Secondary Education Licensure (see Teacher Education below)			BA		
Entrepreneurship		PC		See Business Admin		M
Environmental Science and Technology				BS		M
Exercise Science				BS		
Forensic Anthropology						M
Forensics						M
Finance				See Business Admin	3+2 Program: BBA, Finance + MBA	
Geographic Information Science & Technology		PC				M
Geosciences	Concentrations: Geology; Environmental Geology; Secondary Education; Education Licensure (see Teacher Education below)		AS	BS		M
Graphic Design	Concentrations: Animation and Motion Graphics; Visual Design			BFA		M
Health Information Technology Systems		PC			GC	
History				BA		M
	Secondary Education Licensure (see Teacher Education below)			BA		
Hospitality Management			AAS	BAS, BBA - see Business Admin		M
International Studies						M
Insurance		P.C.		See Business Admin		
Kinesiology	Concentrations: Adapted Physical Education; Fitness and Health Promotion			BA		
	K-12 Education Licensure (see Teacher Education below)			BA		

PROGRAMS OF STUDY		LEVEL OF AWARD				
		Certificate	Associate	Baccalaureate	Graduate	Minor
Liberal Arts	Emphases: Administrative Office Technology; Business Administration; Business Computer Information Systems; Early Childhood Education; Humanities; Social Science		AA			
Liberal Arts	Emphases: Biology; Computer Science; Geology; Mathematics; Physics		AS			
Liberal Arts	Non-Education			BA		
	Elementary Education Licensure: English; Mathematics; Social Science (see Teacher Education below)			BA		
Managerial Informatics				See Business Admin		M
Manufacturing Supervision		TC				
Manufacturing Technology	Emphases: Computer-aided Design Technology; Machining Technology; Welding Technology	TC	AAS			
Mass Communication				BA		M
Mathematics	Concentrations: Mathematics; Statistics			BS		M
	Secondary Education Licensure (see Teacher Education below)			BS		
Mechanical Engineering Technology (see Applied Mechanical Engineering)			AAS	BS		
Medical Laboratory Technician			AAS			
Medical Office Assistant		TC	AAS			
Music	Concentrations: Elective Studies in Business, Liberal Arts; Performance			BA		M
	K-12 Education Licensure (see Teacher Education below)			BA		
Nurse Aide		TC				
Nursing		PN	AAS/RN	BSN		
Nursing	Cognates (MSN): Advanced Nursing Practice; Nursing Education				MSN	
Nursing					DNP	
Peace Officer Standards & Training (POST)		TC				
Personal Training		PC				M
Philosophy						M
Physics				BS		M
Political Science				BA		M
Process Systems Technology			AAS			
Psychology	Concentrations: Counseling Psychology; Psychology			BA		M
Public Administration/ Public Safety				BAS		
Public Safety Diving		TC				
Radiologic Technology			AAS	BAS		
Real Estate Broker		TC				
Social Work				BSW		M
Sociology				BA		M

PROGRAMS OF STUDY		LEVEL OF AWARD				
		Certificate	Associate	Baccalaureate	Graduate	Minor
Spanish	Concentrations: Applied Professional Spanish; Literature & Language			BA		M
	Secondary Education Licensure (see Teacher Education below)			BA		
Speech						M
Sport Management			AS	BS		M
Supervision		TC				
Sustainable Agriculture			AAS			
Sustainability Practices		TC				
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 (BA) Concentrations: English, Mathematics, Social Science						
Secondary Education: Biology (BS); English (BA); History (BA); Mathematics (BS); Physical Sciences - Geology (BS); Spanish (BA)						
K-12 Education: Art (BFA); Kinesiology (BA); Music (BA)						
Initial Teaching Licensure: Elementary; Secondary: Requires education coursework in addition to leveling courses						
Technology Integration	Emphases: Network Technician; Network/Telecommunication Technician; Telecommunication VoIP Technician	TC	AAS			
Theatre	Concentrations: Acting/Directing; Dance; Design/Technology; Music Theatre			BA		M
Transportation Services	Emphases: Automotive Technology; Diesel Technology	TC	AAS			
Visual Communications	Animation Technology	TC	AAS			
Water Quality Management			AAS			
Watershed Science						M
Women's and Gender Studies						M
Wildland Fire Management			AAS			

PC=Professional Certificate; TC=Technical Certificate; GC=Graduate Certificate
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 or fee waiver documentation.

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 via the mail and by email.

Students may submit their application for the following terms as early as:

Spring semester 2015 - May 1, 2014
Summer semester 2015 - September 1, 2014
Fall semester 2015 - September 1, 2014

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 may apply for admission into Associate of Applied Science and Technical certificate programs by submitting appropriate documentation to: Western Colorado Community College, 2508 Blichmann Avenue, Grand Junction, CO 81505

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, reading 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 a transcript 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 2.4 for 30 or more semester credit hours. In calculating

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 from high school. High School grads >= Spring 2008 must meet HEAR requirements	Required; sent directly to university by testing organization [6]	Required; sent directly to university from high school. 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 from high school. 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)	2.40
Two-Year Degree-Seeking (AA, AS)	Required; sent directly to university from high school	Recommended; sent directly to university by testing organization [3]	Required; sent directly to university from high school	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 from high school	Recommended; sent directly to university by testing organization [3]	Required; sent directly to university from high school	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 from high school	Not required	Required; sent directly to university from high school	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] 92 or higher index score 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.

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 one prior institution, the GPA of each is combined for a total cumulative admission GPA. Students with less than 30 transfer credit hours must meet HEAR requirements as outlined in the HEAR section of this catalog.

Transfer students who are on probation or suspension from another college or university, or have a cumulative grade point average of less than 2.4, 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 unofficial transcript may be accepted for a conditional admissions decision. Official transcripts must be submitted to the Admissions Office to be considered for full admission per Colorado state wide admissions policy. Failure to provide all official transcripts may result in a reversal of the conditional admissions decision. All official transcripts should be received no later than the midpoint of the first term of attendance. A registration hold will prohibit registration for future semesters and will be removed once all official transcripts are received. To be considered official, the transcript must be sent directly from the previous institution to Colorado Mesa University.

An official 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 course work must be sent directly to Colorado Mesa University, Registrar's Office, from each institution attended. Official transcripts must be submitted to continue enrollment at Colorado Mesa University. See "Catalog Under Which a Student Graduates" section to determine the catalog to be followed for graduation.

Students who are eligible 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 2.4 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 21 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.

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 92, as well as the HEAR requirements described in the previous section.

Baccalaureate seeking students with an index of 80-91 may be offered provisional admission provided that they follow a curriculum tailored in conjuction with an Academic Success Coach. Once the student completes 24 college-level credit hours, to include a grade of C or higher in SUPP 100, SUPP 101, ENGL 111, and MATH 105, 110, or 113 with a 2.5 GPA or higher, the student then may transition to a baccalaureate program.

Students with an index below 79 will be admitted automatically to Western Colorado Community College (WCCC). Once WCCC students complete 30 college-level credit hours with a 2.3 GPA or higher at the community college, they may then transfer into a baccalaureate program.

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/CU-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 3.70; and
- SAT Critical Reading 610 or ACT English 27; and
- SAT Math 670 or ACT MATH 30

They must also maintain a 2.00 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 Transfer 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

5. gtPathways, Colorado guaranteed general education transfer courses (see Catalog section on General Education Overview/Colorado Department of Higher Education Statewide Guaranteed Transfer Courses)
6. Colleges and universities outside of the United States, provided the institution maintains the equivalent of a regional accreditation and individual transcripts have been evaluated by World Education Services oranother NACES-approved member.

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.

Other Types of Transfer Credit:

Information on the transfer of other types of course credit not outlined above can be found in other sections of this Catalog:

Military credits: refer to the Veterans section under Undergraduate Admission Information.

Technical credits: refer to the requirements for the Bachelor of Applied Science degree under Undergraduate Graduation Requirements.

Transfer of final credits for degree completion: refer to the section on Final Credit Requirements Taken at Another University under Undergraduate Graduation Requirements.

Graduate credits: refer to the section on Transfer Credit under Graduate Programs.

Additional details regarding AP, IB and Military credit can be found in the section on Non-Traditional Credit under General Undergraduate Academic Policies.

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. Students are encoutged to apply prior to May 1 for fall semester and by September 1 for spring semester:

1. International Student Application with $30 non-refundable application fee;
2. Copy of ACT or SAT scores (if taken);
3. Proof of English proficiency*;
4. Official secondary school transcript (transcripts not issued in English must be accompanied by official English translations);
5. Official transcripts from all other colleges or universities attended (see Transfer Students section);
6. Notarized Statement(s) of Financial Support and official bank statement(s) showing proof of funds;
7. Evidence of medical insurance (students who do not have proof of medical insurance will be required to purchase international student health insurance from an approved vendor);
8. For registration purposes, all international students are required to comply with the Colorado law on measles, mumps and rubella. A Colorado Mesa University official immunization form must be completed and returned to the Registrar's 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 for undergraduate admission; 80 (internet based) or 550 (paper based) for graduate admission.

2. Submission of scores of International English Language Testing System (IELTS) with a minimum of Band 6 for undergraduate admission, Band 7 for graduate admission.
3. Enroll and successfully complete our on-campus intensive English program, BridgePathways® at Colorado Mesa University.
4. An international student who has been enrolled as a full-time student at a high school or 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 official, professionally evaluated transcript of courses (or grade reports, exam results, degree awards, depending on the standard of the particular country) before transfer credit can be determined. Please see coloradomesa.edu/international for more information on approved foreign transcription evaluation options. 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, selecting the non-degree seeking student type, 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 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.

Any Service Member or Reservist who is unable to attend class or must suspend their studies due to service requirements must coordinate with the Veteran's Benefits and Services Coordinator in the Registrar's Office in order to comply with 34 C.F.R. Section 668.18.

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).

Early Scholars program - 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.

High School Scholars program - College-level courses are also taught at participating high schools by qualified and approved high school lecturers for academic programs at Colorado Mesa University.

ASCENT program - Students meeting program qualifications may also enroll through Colorado's ASCENT program if they have completed all high school graduation requirements, will have earned at least 12 college credit hours prior to high school completion, and agree to the special enrollment terms of the ASCENT Program.

Technical Scholars program - 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 by compieting the Fast Forward to CMU application. 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

ASCENT stands for Accelerating Students through Concurrent ENrollmenT. Students who have completed at least 12 credit hours of postsecondary courses prior to completion of his/her 12th grade year may be eligible for the ASCENT Program. They remain students in their Local Education Provider (LEP) for one year following their 12th grade year, and the LEP receives ASCENT specific per-pupil state funding that it uses to pay their college tuition. Students receive their high-school diplomas at the end of their ASCENT year.

The LEP 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 LEP. Students must indicate their initial interest through their high school counselor in the Fall semester (see school district for deadline and application). Qualified students must complete and submit the following by February 1st 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), and advanced placement courses are not eligible under the Early Scholars/High School Scholars program.
5. High School seniors may take developmental basic skills courses under the provisions of the Concurrent Enrollment program. 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/.

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 the student decides not to attend, please notify the 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.

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 an Associate or Certificate level 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 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 Welcome Week

Stampede Welcome Week is an opening week program for first time and returning students, beginning the Friday before classes each fall.

New students to Colorado Mesa University are strongly encouraged to participate in the programs offered in order to meet fellow classmates and learn about the University's programs and facilities. Parents of graduating high school students are encouraged to attend the weekend program, as well as Parents Weekend offered later in the fall. Schedules and registration information are available at coloradomesa.edu/stampede.

Supplemental Academic Support Courses

The University offers supplemental courses to assist students in the transition to higher education:

Freshman Year Initiative (FYI)

New freshman students are strongly encouraged to enroll in the university's Freshman Year Initiative (FYI) 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.

Maverick Provisional Program (MVP)

New freshman students admitted at the Provisional Baccalaureate level are strongly encouraged to enroll in the university's Maverick Provisional Program (MVP). Students are registered for SUPP 100 (Higher Education Success Skills) to assist students in making a successful transition to college by learning strategies and skills they will need to successfully navigate their first semester. For more information, visit coloradomesa.edu/mvp.

Sophomore Year Experience (SYE)

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.

More details on these offerings are found in the University-wide Academic Offerings section of this catalog.

Scholarships & Financial Aid

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.

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.

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

Programs are 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 financially 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 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 150% of 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.

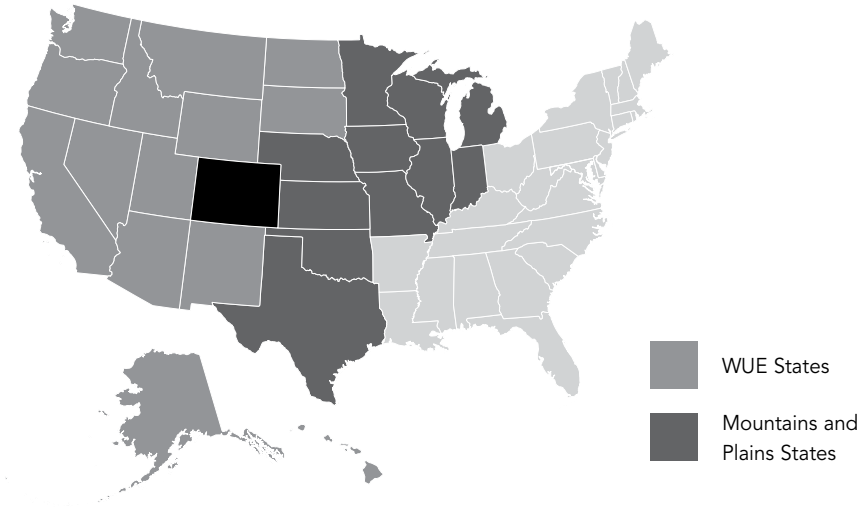
All undergraduate degree programs are open to WUE students. New freshman or transfer students (13-90 credits) enrolling for the first time at CMU are eligible for WUE consideration. Currently enrolled students cannot be considered for WUE after enrollment at CMU. Returning students (those sitting out 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 Tuition Classification Officer 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 a U.S. citizen or permanent resident of the U.S.;
2. be enrolled in consecutive fall and spring terms registering in a minimum of 12 credits each semester. Summer term requires six credit hours;
3. maintain a minimum 2.0 CMU GPA each academic year; and
4. remain a permanent resident of your home WUE state (maintaining your home state driver's license will be required).

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 eleven states to attend Colorado Mesa University by paying 150% 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, Minnesota, Missouri, Nebraska, Oklahoma, Texas and Wisconsin 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 2.5 and a permanent address in one of the M&P qualifying states will be notified of their M&P status.

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 Tuition Classification Officer 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 a U.S. citizen or permanent resident of the U.S.;
2. be enrolled in consecutive fall and spring terms registering in a minimum of 12 credits each semester. Summer term requires six credit hours;
3. maintain a minimum 2.0 CMU GPA each academic year; and
4. remain a permanent resident of your home M&P state (maintaining your home state driver's license will be required).

For more information please contact the Admissions Office at 970.248.1458.

Tuition, Fees, Residence Life & Student Accounts

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.

Tuition and Fee Schedule

The tuition rates and student fees shown below are for academic year 2014-2015; all rates are subject to change by the University's Board of Trustees. Rates can be found online at coloradomesa.edu/studentaccounts/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	$3,624.60
Less COF (state's share of tuition)	-$900.00
Equals student's share of tuition	$2,724.60
Plus general purpose student fees	$325.20
Equals total due from student	$3,049.80

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)	$7,269.00
Plus general purpose student fees	$325.20
Equals total due from student	$7,594.20

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

Tuition per credit hour	$302.05
Less COF per credit hour (state's share of tuition)	-$75.00
Equals student's share of tuition	$227.05
Plus general purpose student fees	$27.10
Equals total due from student per credit hour	$254.15

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

Tuition per credit hour (= student's share of tuition)	$605.75
Plus general purpose student fees	$27.10
Equals total due from student per credit hour	$632.85

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/studentaccounts/expenses.html for more information.

Tuition and Fees

Tuition and fees for the 2014-2015 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.

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. Students are responsible for payment of all incurred charges on student accounts. 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. All accounts are subject to a one-time 25% late fee up to $50.00 in addition to service charges. 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 fees and 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 Office of Student Accounts at 970.248.1567.

NOTE: Students should consult the Financial Aid Office for eligibility requirements of undergraduate and graduate certificates.

Other Fees and Expenses

Books and Supplies

Required textbooks and supplies are sold at the university bookstore, located in the University 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. . . . $30.00

Graduate Application $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 $140.00
Commuter $110.00
Motorcycle $30.00
Pay Lots $1/hour
Faculty/Staff $110.00

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

CMU works with local health insurance companies to secure discounts for students. The student must contact the provider directly for prices, payments, and claims. Student health insurance rates change each semester. Rates are established by the insurance providers and vary based on coverage selected. Contact information for health insurance providers can be found on-line at coloradomesa.edu/studentaccounts.

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.

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, Graphic Design, or Music often use Apple Macintosh computers. Students intending to major in Mass Communication, Graphic Design, or Music are encouraged to consult with their department before purchasing a computer.

Refunds of Tuition and Fees

Refunds are based on withdrawal dates and vary each semester. Please see coloradomesa.edu/studentaccounts for more information.

Student Financial Planning

If students need assistance with payment arrangements, financial planning and financial management, please contact Student Financial Counseling at 970.248.1851, Lowell Heiny Hall, Room 108

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) and transcripts.

College Opportunity Fund

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.

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. Four 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. These halls require 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. Three 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 2285 students. The deposit includes a $25 nonrefundable application fee. Fall housing 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.

Residence 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 lived 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 reslife@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 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 6:45am and 8:00pm with $150 in MAVmoney;

Plan B Unlimited meals between 10:30am and 8:00pm with $150 in 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 10:30am to 1:30pm and 5:00pm to 8:00pm. 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 2014 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**

Pinon, Rait, and Tolman Halls:
Double room $2,308*
Single room $3,073*

Bunting Hall:
Double room $3,200*
Double stacked $2,475*
Single room $3,280*

Garfield Hall:
Double room $2,825*

Monument Hall:
Double suite $2,988*

Grand Mesa Hall:
Double room $3,125*
Single room $3,425*
Super Single $3,700*

North Avenue Suites:
Double room $3,125*
Single room $3,425*

North Avenue Apartments:
Double room $3,450
Single room $3,800

Orchard Avenue Apartments:
Double room $3,500
Single room $3,850

Walnut Ridge Apartments:
Double room $3,000
Single room $3,850

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 $50.00 in MAVmoney.

Plan A Unlimited, 6:45am to 8pm
$2,045
Plan B Unlimited, 10:30am to 8pm
$1,917

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

Residency Status

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 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 a Colorado university *immediately after completing high school* are granted in-state status if they:

- Are a United States citizen
- Graduated from a CO public or private high school (list school)
- Attended a CO high school for at least three consecutive years (must list specific years of attendance)

Students who have earned a GED taken within 12 months of entering college are granted in-state status if they:

- Are a United States citizen
- Successfully completed a GED test (list test date)
- Resided 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 who are unable to answer either of the above series of questions will need to answer all questions on the residency section of the admissions application. If a student is under the age of 23 and not otherwise emancipated via marriage, having a dependent or having been in military service, then CO statute requires parental information to determine the student's residency status. If the parent(s) are true CO residents per state law, then a student under the age of 23 may be granted in-state tuition based on their parental information as long as the student is not otherwise emancipated as previously mentioned. All questions in the residency section of the admissions application should be answered with parent information in this case.

If a student under the age of 23 is emancipated via marriage, having a dependent or having been in military service, they need only provide their own information (not parent information). If a student is over the age of 23, questions need only be answered with student information (not parent information). 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.

Students under 23 with no CO Resident Parent

Students under the age of 23 seeking in-state tuition, do not have a parent who resides in CO, and are not otherwise emancipated as outlined above must submit a Residency Petition to request in-state status on their own accord. These students must prove that their sources of income are sufficient to meet their financial needs without any parental assistance for a full 12 month period prior to the term they seek in-state status. In addition, they must prove 12 month's domicile (bodily living) in CO and that all prior state ties are severed and created in CO for that 12 month period. A Residency Petition will require documents be attached as proof.

Changing from Out-of-State to In-State Status

Students who begin classes at CMU with out-of-state tuition may petition for in-state status when they believe they have met all state of CO requirements for such. A Residency Petition may be submitted if: 1) a student is under the age of 23 and their parent is now a CO resident; 2) the student is under 23 and seeking in-state status on their

own accord; or 3) the student is over the age of 23 and believe they have now met CO requirements for in-state status. A change in status is NOT automatic after attending CMU as an out-of-state student for one year; a student's way to request in-state status is by submitting a completed, notarized Residency Petition with all requested documents attached. Domicile (bodily living) in CO a full 12 months and intent to be a permanent resident of CO are required. Intent requires severing prior state ties and creating them in CO. Such items include, but are not limited to: driver's license, vehicle registration, voter registration and payment of CO state income tax.

The Residency Petition may be found on our web site at http://www.coloradomesa.edu//admissions/documents/resPetitionForm.pdf. You may also pick up a copy in the Admissions Office. Completed, notarized petitions with all requested documents attached are to be submitted directly to the Tuition Classification Officer located in the Admissions Office. Please see the stated deadlines for submission of Residency Petitions.

Residency Appeals

Students who do not agree with the decision of their residency petition may appeal the decision in writing within 15 days from the date their denial decision was e-mailed to them. The appeal and any additional documentation should be sent directly to the Tuition Classification Officer located in the Admissions Office. The decision of the Residency Appeals Committee is the final university determination. For further residency related questions, please contact the Tuition Classification Officer at 970.248.1458.

Military Exemptions and Tuition

Certain exemptions for in-state tuition status are available for military personnel if: 1) military personnel is active duty and stationed in CO – copy of orders needed to consider student, spouse, or children in-state without further documentation; or 2) Honorably Discharged Veteran – copy of DD-214 reflecting Honorable Discharge and either a CO driver's license or CO vehicle registration needed to waive 12 month requirement for immediate in-state status of Veteran. Contact the Tuition Classification Officer in the Admissions Office for further details.

Citizenship and Tuition Classification

Unless otherwise noted in this section, only US citizens, permanent residents, and a select few Visa holders are eligible to be considered for in-state tuition status. Additionally, students without lawful immigration status may be eligible for in-state status if they meet all criteria through ASSET as outlined in the following paragraph.

Students without Lawful Immigration Status and Colorado ASSET Bill

SB 13-033, otherwise known as the ASSET bill, was signed into law in April of 2013. This bill allows certain students without lawful immigration status to be considered in-state for tuition purposes when all the following criteria are met:

1. Attended a CO high school for a minimum of three years;
2. Graduated from a CO high school;
3. Are admitted to a CO university within 12 months of CO high school graduation; and
4. Have completed the College Opportunity Fund (COF) application process including attached Affidavit.

Students having earned a GED may be considered as long as they also attended a CO high school for a minimum of three years prior to earning their GED, are admitted to the university within 12 months of their GED test date, and have completed the COF application and affidavit. Students who were not admitted to the university within 12 months of their high school graduation or GED test date must prove 18 months physical domicile in CO in addition to the above requirements. Please contact the Tuition Classification Officer in the Admissions Office for further details.

Campus 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 Office of Student Accounts for more information.

Petition Deadlines

SEMESTER	QUALIFYING CUT-OFF DATE	SUBMIT PETITIONS NO EARLIER THAN…	SUBMIT PETITIONS NO LATER THAN…
Summer 2014	First day of class	March 10, 2014	2 weeks prior to first day of class
Fall 2014	First day of class	June 23, 2014	August 4, 2014
Spring 2015	First day of class	November 10, 2014	January 5, 2015
Summer 2015	First day of class	March 9, 2015	2 weeks prior to first day of class
Fall 2015	First day of class	June 22, 2015	August 10, 2015
Spring 2016	First day of class	November 9, 2015	January 4, 2016
Summer 2016	First day of class	March 7, 2016	2 weeks prior to first day of class
Fall 2016	First day of class	June 20, 2016	August 8, 2016

Academic & Student Services, Offices, & Activities

Contact: Office of Academic Affairs, 970.248.1881
Office of Student Services, 970.248.1366
Office of Student Accounts, 970.248.1567
Student Life, 970.248.1111

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 Center
Lowell Heiny Hall, Room 127
970.248.1177

Advising is available from two sources: the Advising Center staff and the faculty. The Advising Center assists students with undeclared majors; students who have declared majors should meet regularly with a faculty advisor.

Undeclared students are assigned to the Advising Center and must meet with an advisor prior to registration. Academic advisors will assist students in course selection and registration, help students with strategies for academic success, and guide students 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 or change the student's major/minor, provide a program sheet, and assign the student to a faculty advisor.

Program sheets outline the requirements needed for 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 Center is committed to assisting students in attaining their educational goals. Services provided are:

- Advising/eAdvising
  - First-semester freshmen
  - Students with undeclared majors
- Assist students in course selection and registration
- Guide students in major exploration
- Interpretation of the LASSI assessment
- Assist students with strategies for academic success

Behavioral Clinical Services (BCS)
1112 Belford Avenue
970.241.6500

Counseling Services
Counseling services are contracted by Behavioral Clinical Services (BCS). All students paying student fees are eligible for counseling sessions each academic year for a $5 copay. 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.

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, women's volleyball, men's soccer, women's soccer, Maverick Fencing Alliance, women's cross country, bowling 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).

Career Services
University Center, Room 106
970.248.1404

Career Services provides a variety of services to students and alumni* to assist in attaining their career goals. Services provided are:

- Career Assessments
- Career, Graduate, Teacher and Major Fairs
- Workshops
  - Resume workshop
  - Cover Letter workshop
  - Interviewing Skills workshop
  - Choosing a Major workshop
- MAVjobs (job database)
- Career Resource Center
- On-campus employer recruiting programs
- Optimal Resume

* *Some restrictions may apply.*

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.

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 8am to 8pm and Sunday noon to 4pm. 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 am–8pm
Sunday: Noon–4pm
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 university as educated men and women. The men's program at Colorado Mesa University includes baseball, basketball, football, golf, soccer, swimming, tennis, lacrosse, cross country, track and field and wrestling. Basketball, cross country, golf, soccer, softball, swimming, tennis, lacrosse, track and field, and volleyball are available to women.

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

International Programs and Services • Admissions Office 970.248.1802

International Programs and Services oversees international student admissions and recruitment, international student services and advising, international initiatives and development, and the campus-based intensive English program and partnership.

Intensive English Program, BridgePathways® at Colorado Mesa University

International students who meet all admission requirements except English proficiency can be conditionally admitted to CMU and attend BridgePathways® at Colorado Mesa University, our on-campus intensive English program. The BridgePathways® program features a theme-based curriculum which simulates a university setting, authentic materials written for native-English speakers, critical thinking skills and analysis, and an English-only policy to maximize the learning experience. Students enrolled in the BridgePathways® program live on campus, have access to campus facilities and are integrated into university campus life.

As soon as students in the BridgePathways® program have successfully completed their language studies, students are eligible for direct admission to CMU undergraduate programs. Graduate programs may still require a TOEFL or IELTS score for admission.

International Student Exchange Program Admissions Office 970.248.1802

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 Admissions Office at 970.248.1802.

John U. Tomlinson Library 970.248.1862

Tomlinson Library supports the educational mission of the University by teaching information literacy skills, providing assistance in identifying, locating and evaluating its information sources, and providing a large and diverse collection of materials for use by students, faculty and staff. 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 can be requested for delivery and pick-up at the Main campus, WCCC or the Montrose Center. Through its interlibrary loan service, items not owned by Tomlinson Library can be borrowed from other libraries across the U.S. 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 help from librarians, study rooms, a silent study area, wireless network, computer labs, printing, scanning and photocopy capabilities. Tomlinson Library is accessible 24/7 via the web. 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 and campus Starbucks locations. It can also be used off-campus at Pita Pit, Mountain Grind, J's Philly Steaks, Mojo's, Juice Junction, The Scramble at WCCC. Your MAVcard is also used to access 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, Albers Hall • 970.248.1765

The Student Services Office provides mentoring assistance for students who are in need of support. If a student is dealing with any issue the Student Services office will provide resources to ensure students success. Mentoring guarantees a student that there is someone who cares about them. A student is not alone in dealing with

day-to-day worries and pressures of a University environment. Students who meet regularly with their mentors are 52% less likely than their peers to miss classes. (Public/Private Ventures study of Big Brothers Big Sisters).

National Student Exchange Program • Admissions Office 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/nse.

Office of Student Accounts Lowell Heiny Hall, Room 103 970.248.1567

Office of Student Accounts is responsible for student billing, collection of tuition, fees and other charges, and refunding excess Financial Aid to Students. We administer various payment options and schedules (such as the campus tuition payment plan) to ensure bills are paid on time without penalty. For detailed information conserning the various costs and fess a student may incur and payment options please visit coloradomesa.edu/studentaccounts.

Office of Student Success Albers Hall • 970.248.1340

The Office of Student Success (OSS) advises all Provisional Baccalaureate (PB) students. These students fall between the Associate and Baccalaureate admission requirements for acceptance to CMU. The PB program gives students the opportunity to pursue a Bachelor's degree while receiving additional advising and academic support. The primary role of the OSS is to assist the PB students in developing the skills they need to successfully transition to their desired Baccalaureate program.

The PB program takes a holistic approach to ensure student success and is tailored to the individual student through extensive, one-on-one interactions with an academic coach. The OSS has both professional Academic Success Coaches and Peer Academic Coaches who will assist students with all aspects of their academic experience, including helping them successfully transition to college life, improve study skills, schedule courses, and identify majors and careers they are interested in pursuing.

Parking Services University Center 970.248.1921

Students and University faculty/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.

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, VA 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 and Health • Albers Hall

The Student Diversity, Advocacy and Health 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. The office manages all student related health issues on campus, and refers students to health service providers.

Student Financial Counseling Lowell Heiny Hall, Room 108 970.248.1851

If students need assistance with payment arrangements, financial planning and financial management, contact Student Financial Counseling.

Student Life University Center, Room 212 970.248.1111

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

- 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.
- Club Advisory Board (CAB): Many student clubs and organizations exist at Colorado Mesa University. Currently CMU has over 90 active clubs on campus including honor societies, academic club, general interest clubs, fraternities and sororities, faith-based clubs and volunteer and activist 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.
- Clubs Sports: CMU provides an opportunity for students to compete in club sports with an offering of over 17 sports. For a list of sports, tryouts, and schedules visit the club sports website under Student Life.
- Cultural Diversity Board (CDB): This student organization offers leadership experiences for students and organizes programs to educate students regarding multiculturalism. Member groups include the Black Student Alliance (BSA), Gay-Straight Alliance (GSA), International Student Alliance (ISA), Latino Student Alliance

(LSA) and Native American Student Alliance (NASA).

- 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.
- Intramural Sports: now offering more than 20 different sports IM sports are a fun way to meet people and stay active. Leagues are always forming and run from one day turnements to 8 week competition. Sports range from flag football, softball, racket-ball, battleships and many more.
- 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, everyone of the over 100 events are free for all CMU students.
- MavRides: This organization provides free safe rides to all CMU student every Friday and Saturday nights from 9pm-3am. Call for a ride or volunteer as a driver 970-248-2222.
- 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 headquarters 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 Residence Life Center. Rent mountain bikes, canoes, kayaks, cross-country skis, backpacks, and other gear.

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 Learning Center
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 to self-help and campus resources available to them; and
7. Reinforcing what students already know and understand.

Registration Policies and Procedures

Contact: Registrar's Office, 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, exclusion from class at the discretion of the instructor, or an administrative drop for non-attended courses. Students should not assume that non-attendance will result in an automatic drop from a class (see the Student Liability for Tuition & Fees above).

Instructors may drop any student who fails to attend the first two class meetings so that other students may enroll. Instructors may also 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.) 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.

Administrative drops may be processed as a result of non-attendance in the first two weeks. Faculty will report attendance on affected students via the Satisfactory Academic Attendance System. Students will be notified via their CMU email account if they may be dropped from the course. Tuition, fees, and financial aid will be adjusted according to the credits remaining in the schedule.

Students who receive financial aid and cease attending classes may need to repay all or a portion of their financial aid.

Absences

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.

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.

Emergency or Hardship Withdrawal from Individual Classes

In the case of an event that qualifies as an emergency or hardship, students may request an Emergency or Hardship Withdrawal from an instructor after 50 percent, but before 75 percent of a course is completed. An emergency or hardship situation is defined as a significant, unexpected non-academic circumstance beyond the student's control and is granted at the discretion of the instructor. Failing, poor performance in a course, or other academic-related reasons do not constitute circumstances for an emergency withdrawal.

Students seeking an emergency withdrawal must complete the proper withdraw form, consult the instructor, and return the signed form to the Registrar's Office. Substantiating documentation (e.g., doctor's notes, court documents, death certificates) may be required at the request of the instructor.

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 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."

Add/Drop/Withdraw Exceptions

Exceptions to add, drop or withdrawal deadlines are rare. To be considered, evidence of substantial non-academic circumstances outside the student's control must be provided. To file an Enrollment Appeal, the student must supply a written request explaining the situation along with supporting documentation to the Registrar's Office within six months after the end of the semester being appealed. At the end of the six month period, the registration record is considered final and no further registration or tuition adjustments will be considered. The Enrollment Appeals Committee will review the provided documentation, course feedback from faculty and related enrollment information pertinent to the request. Filing an appeal does not guarantee approval.

Class Waitlists

Automated waitlists are available to students during the registration process. For general classes, when a seat opens, the first student on the list is emailed and given a time period with which the student can add the course. It is the student's responsibility to check their CMU email for notification that his/her waitlisted class has opened. Failure to register within the designated time frame will result in the student being removed from the waitlist and the opportunity moving the next student on the list. The electronic waitlist is deleted after the first week of a sixteen-week class (1/16 of the class for non-standard parts of term).

Electronic waitlists for courses with co-requisites (lecture/lab combinations) are administered by the Registrar's Office. The open spaces are given to the first student on the waitlist who can successfully be registered for both the lecture and lab. The waitlist on

co-requisite courses will be cleared the Friday before the semester starts to ensure class/lab combinations fill.

The time limit to add from the waitlist will drop from 72 hours to 48 hours the week before school starts and down to 24 hours once classes begin. Students still wishing to add a closed class after the waitlist has been deleted must submit a complete Change of Schedule form with instructor's signature to the Registrar's Office prior to the add deadline (class census).

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 must obtain a signature from their advisor before attempting an overload between 19-21 semester hours in a regualr semester or between 10-12 semester hours in a summer term. Students interested in enrolling for more than 21 hours in a regular term or more than 12 in a summer term must submit, in writing, their plan for success during the overload and obtain signature approval from their faculty advisor. Students must then obtain signature approvals from the Department Heads with over sight over their degree programs and the Vice President of Academic Affairs. Students earning a cumulative Colorado Mesa University grade point average of 2.00 or lower will be limited to 15 credit hours per semester.

Student Preparation/ Academic Engagement for Class Meetings

In compliance with the requirements of the U.S. Department of Education and consistent with the expectations of the Colorado Commission on Higher Education, Colorado Mesa University defines a contact hour as 50 minutes. Thus a one credit hour, 15-week course equates to 750 minutes (15 contact hours) of academic engagement plus a minimum of 1500 minutes (30 hours) of student preparation.

An undergraduate student should expect to spend on an individual course a minimum of two hours outside the classroom for every hour in the classroom. The outside hours may vary depending on the number of credit hours or type of course. This expectation applies to all courses, regardless of wherever or however the instruction is delivered. More details are available from the faculty member or department office and in CMU's Curriculum Policies and Procedures Manual.

Academic engagement" may include, but is not limited to, submitting an academic assignment, listening to class lectures or webinars (synchronously or asynchronously), listening to a guest speaker, taking an exam, completing a writing assignment, an interactive tutorial or computer-assisted instruction, attending a study group that is assigned by the institution, conducting research (e.g., for a project, play production, etc.), contributing to an academic on-line discussion, initiating contact with a faculty member to ask a question about the academic subject studied in the class, conducting laboratory work, completing an externship or internship.

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, sub-100 level labs or non-traditional credits such as CLEP, AP, military credits, etc., and may be applicable toward graduation.

Footnote (1): Student preparation may include, but is not limited to, homework such as reading and study time, completing outside assignments and projects, practice for performance, writing lab reports, attending mandatory theatre and music performances, observing professional meetings (e.g., school board meetings for education courses), and attending faculty seminars and colloquia.

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 best grade received is the one used to compute the student's cumulative grade point average and to fulfill requirements for the degree.

The lower grade will be excluded from the earned hours for the term taken and will be excluded from the GPA calculations. This may cause a negative effect on financial aid, Veteran benefits, athletic eligibility, scholarships, and other areas that use earned hours to determine student benefits. It is the student's responsibility to work with the appropriate departments to consider options and potential consequences prior to repeating the course.

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.

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. See the specific department for more information on possible challenge exam options. Students must be accepted to Colorado Mesa University before the approved CLEP and challenge exam credits will be recorded as transferable credit.

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 30 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. Competency Credit/Credit for Prior Learning – maximum of 30 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 primarily to students at the junior and senior levels with a minimum GPA of 2.75 except in certain certificate and AAS programs and only in those disciplines listed in the Course Descriptions section of this catalog.

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.

An Individualized Learning Contract, available from the Academic Department Head, 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, and the approval by the instructor and department head.

Further restrictions apply in some disciplines. 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.

Laboratories

Many courses at Colorado Mesa University have both lecture and laboratory components to a single course. The class and laboratory portions are technically treated as different courses with distinctive numbers and individual grades. A student is usually required to be concurrently enrolled in both class and laboratory. Credit applied toward graduation cannot be earned for the class or laboratory unless credit is earned in both.

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.

Academic Integrity

All faculty, administration, and students of Colorado Mesa University have a responsibility for establishing and fostering an understanding of the importance of academic integrity. Academic dishonesty includes but is not limited to representing work of others as your own without proper acknowledgment, giving or receiving assistance on exams, papers, projects, or assignments unless authorized to do so; and misrepresenting your identity or allowing others to do so. Incidents should be reported to the instructor of the course if possible, or contact the Academic Department Head. Actions may be taken as a result of academic dishonesty. For more details, see the Maverick Guide at http://www.coloradomesa.edu/studentservices/documents/MaverickGuide.pdf.

Student Complaint Policy

An official complaint is when a student alleges:

1. the institution has violated local, state, and/or federal law;
2. a breach of contract e.g. failure to meet institutional obligations as presented in a recruiting material document, application for enrollment or student housing, course syllabus, etc.; or,
3. a passive response by the institution to a complaint by a student that resulted in material damages to the student.

Disagreement with an administrative decision, or the outcome of an appeal of that decision, is not a complaint unless it alleges improper, unfair, or arbitrary treatment. The complaint must be in writing with an identifiable signature and is not already covered by another existing policy or process (see attached table).

A student wishing to file a complaint should do so as promptly as possible following the alleged violation, but by no later than February 15 for a concern occurring during the prior fall semester, June 15 for the prior spring semester, and September 15 for the prior summer term. Timely initiation of a complaint rests with the student. The complaint should be in writing and signed by the complainant or submitted electronically from a Colorado Mesa University student email address. The complaint should 1) describe the issue that is the basis for the complaint, including the steps have been taken to informally resolve the problem, and 2) include any relevant documents the student would like to be reviewed as part of the complaint process. Depending on the nature of the violation, the complaint should be sent to the Office of the -

- Vice President for Academic Affairs or the Vice President for Community College Affairs if the concern is academic-related;
- Vice President for Finance and Administration if service-related;
- Vice President for Student Services if behavior or conduct related; or
- Director of Human Resources if an alleged violation of discrimination in employment or education opportunity.

For additional information, go to http://www.coloradomesa.edu/academics/documents/StudentComplaintPolicy_Final.pdf

Student Appeals

Students have the right to appeal actions or sanctions (such as those relating to grades or academic dishonesty) and should begin the process by meeting with the course instructor. The Maverick Guide provides a detailed explanation of Academic Integrity, Academic Dishonesty, Student Appeals, Grade Appeals and related processes. The guide is available on the CMU website at http://www.coloradomesa.edu/studentservices/documents/MaverickGuide.pdf. The University provides that all student concerns, grievances, and appeals that are not covered under a specific policy may be directed either to the Office of the Vice President for Academic Affairs or to the Office of the Vice President for Student Services.

Undergraduate Graduation Requirements

Contact: Registrar's Office, 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 or online at coloradomesa.edu/programsheets.

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 30 semester hours of final credit will be accepted in transfer.

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.

General Education/Essential Learning Overview

The Essential Learning program at Colorado Mesa University is the University's term for what many institutions call General Eduaction. Students must complete the general education requirements for their degree program. Approved general education courses are listed in the Requirements for a Baccalaureate Degree and the Requirements for an Associate Degree section of the catalog. Students may select their general education courses from the designated lists according to their own preference unless specific courses from the general education lists are prescribed for their degree program. Courses used to meet the major requirements cannot be used to fulfill the general education requirement. For specific degree requirements, go to coloradomesa.edu/programsheets.

The only exceptions to the general education requirements are: (1) students who have earned a baccalaureate degree, Associate of Arts degree, or Associate of Science degree from a regionally accredited institution or (2) whose transcript contains the "Common Core" statement indicating completion of the Colorado Core Transfer Consortium general education curriculum. In both these cases, the general education curriculum is completed unless the degree program contains prescribed courses listed under the general education area of the program sheet. The student must still meet this coursework as well as any other specified lower division requirements, as part of the degree program.

Students seeking to transfer all or part of a General Education program from another institution should check with the Colorado Mesa University Registrar's Office to see if it conforms to the statewide guaranteed transfer program.

General Education requirements may also be met 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 also be awarded via the Credit for Prior Learning option. See Non Traditional Credit section in this catalog for more information.

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. Any required mathematics preparatory courses, as well as the general education mathematics course, must be completed with a "C" or higher. 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.

All mathematics prerequisite courses must be completed with a grade of "C" or better.

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. Up to six KINA courses (excluding varsity athletics) may be taken as electives toward graduation with a baccalaureate degree.

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. Up to three KINA courses (excluding varsity athletics) may be taken as electives toward graduation with an associate degree.

Kinesiology activity courses include those with the "KINA" prefix, DANC 160L, 169L, 174L, 177L, 180, and MUSP 147.

Each course is scheduled for an eight week module and designed to emphasize and assess basic skills, related knowledge, and the importance of physical activity in promoting and maintaining personal health. Students will learn and apply health fitness concepts while gaining skills relating to the specific aactivity. Throughout the eight weeks, students will complete various assignments designed to encourage physical activity, healthy

lifestyle changes, and application health and fitness concepts. Prerequisites for all "Intermediate" or part II classes: the corresponding beginning course or instructor consent.

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.

Varsity Athletics: Only one varsity sport activity course at the 100-level may be used to meet the Wellness activity requirement. Varsity athletics may not be used as elective credit.

Learn… Express… Do: The CMU Baccalaureate Degree

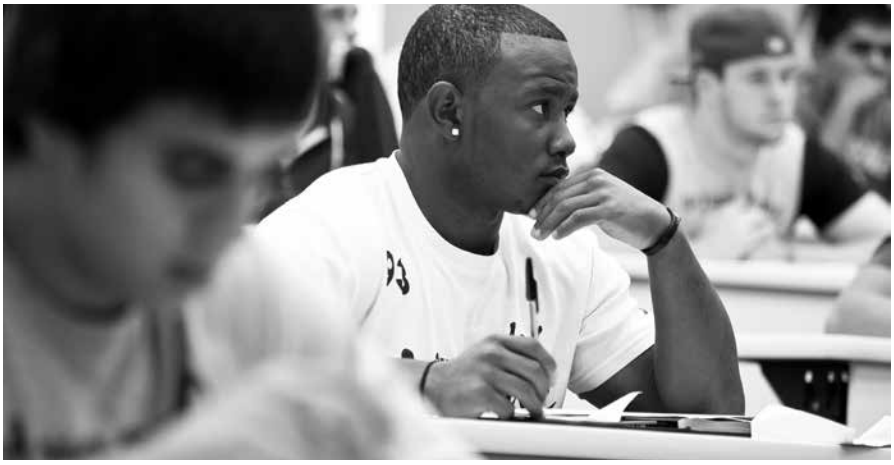
The General Education/ Essential Learning Curriculum

The expectation of Colorado Mesa University (CMU) is that students will graduate with a well-developed capacity for analytical thought and a heightened awareness of their world. In the university environment, students are expected to embrace great ideas and expressions of creative energy that define the human condition. CMU baccalaureate students explore learning in a variety of fields of knowledge while also focusing their attention on a particular area of interest. This combination produces graduates with an adaptable skill set for both their personal and professional lives. By the time CMU baccalaureate graduates will be able to:

- Construct a summative project, paper or practiced-based performance that draws on current research, scholarship and/or techniques, and specialized knowledge in the discipline (applied learning; specialized knowledge);
- Analyze data critically, reason logically, and apply quantitative analysis methods correctly to develop appropriate conclusions (intellectual skills - quantitative fluency);
- Make and defend assertions about a specialized topic in an extended well-organized document and an oral presentation that is appropriate to the discipline (intellectual skills - critical thinking).

Success in CMU's baccalaureate programs requires participation in CMU's general education program which is transitioning to the Essential Learning curriculum. This curriculum provides students with a foundation in the arts and sciences - derived from a range of courses in mathematics, natural sciences, fine arts, humanities, and social sciences - that complements and enhances their academic emphases. The exposure to multiple fields of study promotes intellectual respect for diverse people, ideas and cultures. This path of study develops skills critical to academic, personal, and professional success while cultivating a passion for life-long learning. Essential Learning courses provide important tools that enable students to fully realize their potential at the baccalaureate level. When students have completed the Essential Learning program, they possess strong abilities in critical thinking, quantitative analysis, and communication that enable them to pursue the higher-order skills required by our academic majors. Upon completing CMU's Essential Learning program, a student will be able to:

- Produce effective arguments and summaries in written English
- Produce effective arguments and summaries in spoken English.
- Identify appropriate strategies to model quantifiable relationships.
- Apply mathematics to solve problems.
- Critically examine and evaluate an argument.
- Demonstrate investigative and analytical thinking skills to solve problems
- Select and use appropriate information or techniques in an academic project.



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/Essential Learning:
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 30 of the last 60 semester hours of credit 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 BA and BS 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 (BAS) degree from Colorado Mesa University, the following are general requirements that apply to all BAS degrees. All BAS students are required to meet with the department BAS advisor in order to plan and schedule all classes.

- Formal admission to a BAS program requires completion of the appropriate AAS degree from an accredited institution. Any exceptions to this must be approved in advance by the department BAS advisor and the Department Head.
- In order to meet course prerequisites, additional courses may be required. Please meet with the BAS advisor to insure all prerequisites are completed.
- If a student decides to pursue a four-year degree that is not the BAS, 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 AAS degree before their technical training will be recognized for credit in the appropriate BAS program. Applicants from a non-regionally-accredited institution must complete general education and total credit hour requirements from a regionally-accredited institution prior to graduation from Colorado Mesa with a BAS program.
- The requirement for 33 hours of upper division coursework must be met by all students seeking a BAS degree, with the exception of a BAS 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 BAS degree is available from the appropriate Academic Department Head of the BAS program and the Transfer Resources section of the University's web site.

Bachelor of Arts

Candidates for the BA or the BFA in Art History 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 BS 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/Essential Learning Core Course Requirements

Each student must complete the 31 minimum semester hour general education/essential learning 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/ Essential Learning Baccalaureate Degree Requirements.

English: 6 semester credit hours
English courses must be taken in sequence and students are encouraged to take them in consecutive semesters. A "C" or higher must be earned in ENGL 111 before a student can take ENGL 112 or ENGL 219 and a "C" or higher grade must be earned in ENGL 112 or ENGL 219 to satisfy this requirement.

Mathematics: 3 semester credit hours
For specific mathematics requirement, students should complete the course specified on the program sheet. For all majors, the mathematics requirement and any required mathematics prerequisite can only be met with a grade of "C" or higher.

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, DANC 160L, 169L, 174L, 177L, 180, or MUSP 147.

Note: Only one varsity sport course numbered KINA 180-193 may be used to meet the activity requirement.

Assessment of Student Learning

Colorado Mesa University is committed to providing quality education for students across all disciplines through a variety of campus activities. One means of continuously improving the quality of University offerings is through identifying specific learning outcomes that reflect what a graduate should know and be able to do, and then assessing how well those outcomes are met.

Assessment of student learning in academic programs is one of the processes used by faculty members to measure student progress in the knowledge and skills necessary to be successful. All CMU students are expected to engage in assessment activities, such as submitting course assignments, taking examinations, completing surveys, or participating in standardized tests. These assessment center on specialized knowledge and applied learning in each major, in addition to intellectual skills that include communication, computation, and critical thinking. Student learning outcomes specific to each program of study can be found on the relevant program sheet and supporting course syllabi. Beyond the classroom, a second part of assessment involves student learning in co-curricular activities such as student life or service learning.

CMU students should plan to participate in assessment efforts and provide honest feedback that will assist the University to enhance the quality of its programs. More specifically, learning outcome data are compiled to assist faculty and staff members in making improvements in majors at all levels, Essential Learning (general education) coursework, and student life programming. Finally, aggregated assessment results are reported to members of the CMU community, accreditation organizations, and state and federal agencies.

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

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

Most 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").

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 BA or BFA 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 BS, BSN., or BBA 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 BAS 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 (not approved for gtPathways)
PHIL 130	Philosophy of Religion

Social and Behavioral Sciences

ANTH 202	Introduction to Anthropology (not approved for gtPathways)
ECON 201	Principles of Macroeconomics
ECON 202	Principles of Microeconomics
FOAN 180, 180L	Survey of Physical Anthropology and Lab
GEOG 102	Human Geography
GEOG 103	World Regional Geography
POLS 101	American Government
POLS 261	Comparative Politics
PSYC 150	General Psychology
PSYC 233	Human Growth and Development
SOCI 101	Introduction to Lesbian, Gay, Bisexual and Transgender Studies
SOCI 120	Technology and Society
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
*	BIOL 250, 250L	Introduction to Microbiology 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 108	Water, People and Environment (not approved for gtPathways)
*	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.*

Courses Approved for Other Lower-Division Credit Requirements

Applied Studies

ACCT 201	Principles of Financial Accounting
BUGB 101	Introduction to Business
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
FLGK 111, 112	Introductory Greek I, II
FLLT 111, 112	Introductory Latin 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 160	Beginning Ballet
DANC 169	Beginning Modern
DANC 174	Beginning Jazz
DANC 177	Beginning Tap
DANC 180	Beginning Hip Hop Dance
MUSP 147	Marching Band

Only one varsity sport course numbered KINA 180-189 may be used to meet the activity requirement.

Colorado Department of Higher Education Statewide Guaranteed Transfer Courses

Colorado Mesa University has 75 general education/ essential learning 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 (AA)
Associate of Science (AS)
Associate of Applied Science (AAS)

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 15 of the final 30 semester hours of credit at Colorado Mesa University.

Associate of Arts (AA) and Associate of Science (AS) Degree Requirements

AA and AS degree programs are designed to prepare students for upper division collegiate work (junior level) in colleges and universities granting the Bachelor of Arts (BA) or Bachelor of Science (BS) degree. All AA and AS 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 AA or AS 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 AA 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 AS 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. AA and AS degrees in emphases not described in this catalog may be developed in consultation with the faculty advisor. An AA or AS 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 (AAS) Degree Requirements

AAS 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 AAS 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 AAS degree includes:

1. General Education Requirements for the AAS Degree include:
   a. Minimum 3 semester hours of Mathematics:
      - MATH 107 or higher

      See your advisor for the appropriate course and refer to the specific program sheet for more information. MATH 107 and MATH 108 will not meet the mathematics general education requirement for students who subsequently pursue a further associate (AA or AS) or a baccalaureate degree.

   b. Minimum 6 semester hours of Communication:
      - ENGL 111 and
      - ENGL 112 or SPCH 101 or SPCH 102

   c. Minimum 6 semester hours:
      - 3 semester hours Social Sciences/History/Natural Science/Fine Arts or Humanities

      and

      - 3 hours from Social Sciences/History/Natural Science/Fine Arts/Humanities or selected Applied Studies as determined by the program.

   Note: Applied Studies courses are not considered as general education in the associate (AA or AS) or the baccalaureate degree requirements. (See the General Education/Applied Studies lists on pages 50-51)
2. Other lower division degree requirements:

   Wellness Requirement: 2 semester hours

   KINE100

   KINA 1XX
3. Additional lower division requirements may apply to some degrees, e.g. prerequisites.

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 AA and only one AS 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. To meet academic residency, at least fifty percent of the credit hours for the certificate must be earned at Colorado Mesa University.

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.

NOTE: Students should consult the Financial Aid Office for eligibility requirements of undergraduate & graduate certificates.

Assessment of Student Learning

Colorado Mesa University is committed to providing quality education for students across all disciplines through a supportive learning environment. Assessment of student learning is a process used by program faculty to measure student progress in the knowledge and skills necessary to be successful after graduation. All students will participate in the process by engaging in assessment activities through submitting course assignments, taking examinations, completing surveys or writing standardized tests. Evidence collected through assessment assists faculty in program improvement at the certificate, undergraduate and graduate level.

Student learning at CMU is centered on specialized knowledge and applied learning in the discipline as well as the intellectual skills of communication fluency, quantitative fluency and critical thinking. Part of assessment also involves student learning at the co-curricular level in areas such as student life or service learning. Students will be expected to participate in assessment and provide honest feedback for evaluation. Data gathered will be evaluated in aggregate form and reported to respective members of the CMU community as well as accreditation organizations. Assessment is a key element to improve teaching and learning, and to enhance the quality of programs at the University.

ACCOUNTING

PROGRAMS OFFERED

Bachelor of Science
- Accounting – Public Accounting
- Accounting - General 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 general accounting concentration is designed for undergraduate students who do not wish to pursue CPA certification. This program provides students with basic business skills as well as accounting knowledge needed to work in an accounting department in private industry or government.

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 the better prepared students will be for a management position. This is a vigorous minor that will stand out on a résumé.

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****.*

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 needed to learn the CPA. 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.

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, Dominguez Hall 309, 970.248.1778.

FACULTY

DANIEL ASHTON (2014), Assistant Professor of Accounting; BS, Southeast Missouri State University; MA Webster University; MA, Embry-Riddle Aeronautical University; MBA Webster University

RODNEY CARTER (2014), Assistant Professor of Accounting; BS, MA, University of Utah.

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

GEOFFREY GURKA (2001), Professor of Accounting; BA, University of Connecticut; MA, Florida State University; PhD, Michigan State University.

SUZANNE LAY (2006), Associate Professor of Accounting; BS, Norfolk State University; MBA, University of Missouri-Kansas City; MSEd, Emporia State University.

ADDICTION STUDIES

PROGRAMS OFFERED
Minor
Addiction Studies

PROGRAM DESCRIPTION
This minor will provide students the knowledge and skills that are in high demand in all aspects of the behavioral health field. Students receiving this minor will be provided with the latest evidence-based practices, research studies and best practices in the field of addictions. This 24 credit hour minor is offered to meet the educational requirements that are needed for the CAC certification as outlined by the Colorado Department of Behavioral Health (DBH) and offered through the Department of Regulatory Agencies (DORA). These courses seek to enhance the student's counseling abilities, knowledge and competencies in becoming an addictions professional. By completing the requirements of this minor students will be eligible to take the NADAAC exam and apply for their state of Colorado CAC certification. All required classes seek to enhance the student's ability to offer addiction treatment services in a manner that respects gender, race and ethnicity, sexual orientation, cultural, familial, systemic and socioeconomic diversity.

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, Lowell Heiny Hall 413, 970.248.1696.

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 administration office technology specializing in general office administration prepares students to be effective, efficient, entry-level office professionals. Students learn how to use emerging technology to effectively and efficiently manage organizations as well as small businesses. By using current industry practices, students develop skills with

office automation to maintain financial records, inventory information, payroll records, customer and client databases, and other pertinent business information. Additionally, students have the option of choosing elective courses that teach them how to manage social networking sites for business marketing purposes, how to use voice recognition software for creating business documents, and how to create and manage web sites. The general office administration curriculum prepares students to be effective office support staff in business, government or non-profit organizations.

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 combines technical, interpersonal, and soft skills courses that prepare students for entering the workforce as effective and efficient office professionals. Completion of this degree also reduces the work experience requirements needed to sit for the Certified Administrative Professional (CAP) exam. Course content is relevant to today's business needs. The program emphasizes written, verbal, personal and virtual communication skills, use of current office software applications, current technology, office procedures, flexibility, team building, time management, diversity, and adapting to change. Students develop proficiency in using word processing software, scheduling and time management software, database software, spreadsheet software, web site design and maintenance software, and presentation software. Curriculum also covers use of electronic conferencing equipment, and how to manage social networking sites for business marketing purposes. Students further develop effective written and verbal communication skills and learn to work independently as well as with diverse teams. The administrative professional curriculum demonstrates how varied computer hardware and software as well as the internet is used to create, collect, store, manipulate, and relay office information needed for accomplishing basic tasks and organizational goals. Possible career options include positions as administrative and executive assistants.

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
ALANE WOOSTER (2001), Assistant Technical Professor of Administrative Office Technology; AAS, Colorado Northwestern Community College; BS, Colorado Christian University; MBA, Colorado Mesa University.

AGRICULTURE SCIENCE

PROGRAMS OFFERED
Associate of Science
Agriculture Science

PROGRAM DESCRIPTION
The Agriculture Science curriculum is designed to provide students the fundamentals of agriculture and related business practices. With this degree, students will be well positioned to transfer into a bachelor degree program in agriculture. Graduates are qualified for employment in a variety of

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****.*

positions associated with sustainable agriculture, including horticultural and livestock operations, wholesale and retail management, nursery operations, and environmental and agricultural education.

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

FACULTY
BENJAMIN KEEFER (1991) Assistant Technical Professor; BS, MEd, PhD, Colorado State University.

JOHN SLUDER (1998), Assistant Technical Professor

APPLIED MECHANICAL ENGINEERING

PROGRAMS OFFERED
Bachelor of Science
Applied Mechanical Engineering
Associate of Applied Science
Mechanical Engineering Technology

PROGRAM DESCRIPTION
The objective of the applied mechanical engineering 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 applied mechanical engineering major is designed for a student who is a 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 applied mechanical engineering.

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

CONTACT INFORMATION
Archuleta Engineering Center, 2510 Foresight Circle, Grand Junction, CO, 81505, 970.248.1400
-or-
Department of Physical and Environmental Sciences, Wubben Hall 222, 970.248.1993.

PROGRAM DIRECTOR
TIMOTHY BROWER (2009), Director, CMU/CU-Boulder Mechanical Engineering Partnership Program; BS, Idaho State University; MS, Montana State University; PhD, Colorado State University.

FACULTY
SCOTT BEVILL (2010), Assistant Professor of Mechanical Engineering; BS, University of Denver; MS, PhD, Stanford University.

B. SCOTT KESSLER (2011), Assistant Professor of Mechanical Engineering Technology; BS, MS, PhD, University of Missouri.

FARZAD TAGHADDOSI (2012), Assistant Professor of Mechanical Engineering, ; BSc, University of Tabriz, MASc., Concordia University, MSc., Wichita State University, PhD, McGill University.

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, Lowell Heiny Hall 413, 970.248.1696.

ART

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 media) and art history. Students develop skills and aesthetic judgment in the materials, techniques and tools within drawing, painting, printmaking, 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 gallery exhibition, 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 media. Students develop skills, sensitivity and aesthetic judgment while pursuing individual interests within studio areas such as drawing, painting, printmaking, ceramics or sculpture. A background in the visual arts can provide a variety of opportunities in the areas of studio art, art gallery 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

STEVEN BRADLEY (2004), Professor of Art; BA, University of Colorado-Boulder; MA, PhD, Northwestern University.

JOSHUA BUTLER (2006), Associate Professor of Art; BFA, MFA, Colorado State University.

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

ELI MARCO HALL (2012), Assistant Professor of Art; BFA, Missouri State University; MFA, Colorado State University; MA, Lindenwood University.

ALISON HARRIS (2013), Assistant Professor of Art; MFA, California State University, Long Beach; MEd, National University; BFA, Sonoma State University; BA, University of California, Davis.

KYOUNGHWA OH (2014), Assistant Professor of Art, BFA, Washburn University, MFA, Southern Illinois University - Carbondale.

HEATHER PATTERSON MCCULLOCH (2011), Assistant Professor of Art; BFA, Sonoma State University; MFA, University of California, Berkeley.

CAROLYN QUINN-HENSLEY (2000), Professor of Art; BFA, MFA, University of Hawaii.

ARAAN SCHMIDT (2013), Assistant Professor of Art; BFA, Kansas City Art Institute; MFA, University of Minnesota.

ATHLETIC TRAINING

PROGRAMS OFFERED
Bachelor of Science
Athletic Training

PROGRAM DESCRIPTION
The Athletic Training Program is a five semester clinical program, usually completed from the spring of the sophomore through the senior year, and is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Admission is competitive and admission into Colorado Mesa University does not guarantee admission into the program. The Athletic Training Program 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 Athletic Training Program at least 1 semester prior to application/ transfer to assure that they have time to develop the required skills and knowledge pre-requisites.

Application deadline is the Monday following Thanksgiving for admission into the clinical program for the following spring semester.

SPECIAL REQUIREMENTS
Health Care Provider CPR/AED certification 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 Athletic Training Program:
1. Have a cumulative GPA of 2.75 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; BS, Clemson University; MA, The Citadel; JD, University of South Carolina; EdD, United States Sports Academy.

JILL CORDOVA (1992), Professor of Kinesiology and Department Head of Kinesiology; BA, MA, Humboldt State University; PhD, University of New Mexico.

JEREMY HAWKINS (2013), Assistant Professor of Kinesiology and Director of the Athletic Training Program; BS, Brigham Young University; MS, Oregon State University; PhD, Brigham Young University.

KRISTIN HEUMANN (2011), Assistant Professor of Kinesiology; BA, Northwestern College; MS, PhD, Arizona State University.

GUY LEADBETTER (1993), Professor of Kinesiology and Head Coach, Women's Cross Country; BA, Bowdoin College; MS, University of Montana; PhD, University of New Mexico.

STEVEN ROSS MURRAY (1998), Professor of Kinesiology; BS, University of North Alabama; MS, DA, Middle Tennessee State University.

ELIZABETH SHARP (2011), Assistant Professor of Kinesiology; BS, MEd, Arkansas Tech University; PhD, Middle Tennessee State University.

BAKING AND PASTRY

PROGRAMS OFFERED
Technical Certificate
Baking and Pastry
Associate of Applied Science
Baking and Pastry

PROGRAM DESCRIPTION
This program will prepare students for employment in the field of baking and the art of pastries. The Associate of Applied Science program will develop the students' skills and understanding in the production of chocolates, confections, pastries, ice creams and frozen desserts, yeast products, quick breads, sculpted items, sugar work, use of fruits and international desserts. Business and management courses to be taken include nutrition, purchasing, supervision, and business information technology.

Upon completion of the program, students will be prepared for an entry-level position in the broad and expanding hospitality/industry as well as prepared to continue for advanced study in the Bachelor of Applied Science in Hospitality Management.

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

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

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****.*

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; BA, University of Kansas; MS, University of Missouri; DA, University of Northern Colorado.

MARGOT BECKTELL (2008), Assistant Professor of Biology; BS, Mesa State College; PhD, Cornell University.

KELLY JEAN CRAIG (2012), Assistant Professor of Biology; BS, University of Kansas; PhD, Georgetown University.

SHAY FABBRO Instructor of Biology; BS, Mesa State College; PhD, University of Colorado-Denver.

PAUL HAMPTON (2012), Assistant Professor of Biology; BS, Eastern Illinois University; MS, University of Texas at Tyler; PhD, University of Louisiana at Lafayett.

ERIEK HANSEN (2013), Assistant Professor of Biology; BS, MS, Utah State University; PhD University of Wyoming.

SUSAN LONGEST (2011), Assistant Professor of Biology; BS, Cornell University; MS, PhD, University of Chicago.

STEPHANIE MATLOCK, Instructor of Biology; BA, University of Colorado-Boulder; MS, Montana State University–Bozeman.

DENISE MCKENNEY (1996), Professor of Biology and Department Head of Biological Sciences; BS, New Mexico State University; PhD, North Carolina State University–Raleigh.

KYLE MCQUADE (2006), Associate Professor of Biology; BS, Millikin University; PhD, University of Wisconsin.

ZEYNEP OZSOY-BEAN Instructor of Biology; BS Bogazici University-Turkey; PhD, University of North Carolina–Chapel Hill.

APARNA PALMER (1999), Professor of Biology; BA, BS, Colorado State University; PhD, Washington State University.

STEPHEN STERN (2011), Assistant Professor of Biology; BS, University of North Carolina–Asheville; PhD, University of Utah.

THOMAS WALLA (2001), Professor of Biology; BA, University of California–San Diego; PhD, University of Oregon–Eugene.

CARRIE MCVEAN WARING (1996), Professor of Biology; BS, DVM, Colorado State University.

STEVEN WERMAN (1990), Professor of Biology and Assistant Vice President for Academic Affairs; BS, MS, California State University—Long Beach; PhD, University of Miami.

BUSINESS

PROGRAMS OFFERED

Professional Certificate
- Energy Management/Landman
- Entrepreneurship
- Insurance
- 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
- Emerging Markets
- Energy Management/Landman
- Entrepreneurship
- Finance
- Hospitality Management
- Human Resource Management
- Information Systems
- Insurance
- Management
- Managerial Informatics
- Marketing

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

Master of Business Administration

Bachelor of Business Administration in Finance + Master of Business Administration (3+2)

Bachelor of Science in Construction Management + Master of Business Administration (3+2)

PROGRAM DESCRIPTIONS

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 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 over140 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.

AAS, 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 coursework 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

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.

Travel and Tourism

The minor in travel and tourism is designed to prepare students to enter the world of hospitality 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.

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

CONTACT INFORMATION

Department of Business, Dominguez Hall 309, 970.248.1778.

FACULTY

MORGAN BRIDGE (1995), Professor of Business and Department Head of Business; BBA, MA, Chadron State; PhD, University of Wyoming.

EMMA FLECK (2013), Assistant Professsor of Business; BA, PhD, University of Ulster-Northern Ireland.

TIMOTHY HATTEN (1995), Professor of Business; BA, Western State College; MS, Central Missouri State; PhD, University of Missouri.

STANTON HEISTER (2013), Assistant Professor of Business; BS, University of Michigan; MBA, University of Portland.

GEORGANN JOUFLAS, Instructor of Business; BA, University of Colorado; MBA, George Washington University.

ROBERT MAYER (1987), Associate Professor of Business; BA, MS, University of Northern Colorado.

DEBORAH PARMAN, Instructor of Business; BA, Colorado State University; MAM, University of Redlands.

NATHAN PERRY (2010), Assistant Professor of Business; BA, Westminster College; PhD, University of Utah.

MATT ROSENBERG (2011), Assistant Professor of Business; CFA, CPA, MPA, The University of Texas at Austin.

PATRICK SCHUTZ (2004), Associate Professor of Business; BS, Eastern Michigan University; MS, University of Utah; PhD, Colorado State University.

KYLE STONE (2013), Assistant Professor of Business; BS, Central Missouri State University; MEd, PhD, Colorado State University

RICHARD VAIL (1997), Professor of Business; BS, University of California-Davis; MS, University of Colorado; PhD, Oxford University.

CHEMISTRY

PROGRAMS OFFERED

Bachelor of Science
Chemistry

Minor
Chemistry

PROGRAM DESCRIPTION

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.

Chemistry students gain a unique perspective on the composition, properties and reactivity of the substances surrounding them. These students gain problem-solving skills that can be applied in chemistry labs, in other classes and in day-to-day life. By having chemistry faculty with a diverse range of specialties (analytical chemistry, biochemistry, inorganic chemistry, physical chemistry and organic chemistry), chemistry majors have the opportunity to learn about each of these fields.

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.

CONTACT INFORMATION

Department of Physical and Environmental Sciences, Wubben Science 232, 970.248.1993.

FACULTY

JAMES AYERS (2007), Associate Professor of Chemistry; BS, University of Texas-Austin; PhD, Stanford University.

TIMOTHY D'ANDREA (2009), Assistant Professor of Chemistry; BS, Ursinus College; PhD, University of Colorado.

PAUL ENNIS, Chemistry Lab Coordinator; BS, University of California - Riverside.

SUZANNE KENNEY, Instructor of Chemistry; BS, MS, Clarkson University.

JOSEPH RICHARDS (1995), Professor of Chemistry; BA, University of San Diego; PhD, University of North Carolina.

DAVID WEINBERG (2011), Assistant Professor of Chemistry; BA, University of San Diego; PhD, California Institute of Technology.

KIMBERLY WHITE (2012), Assistant Professor of Chemistry; BS, University of California, Santa Cruz; MA, University of California, Santa Barbara; PhD, University of California, Santa Cruz.

CLASSICAL STUDIES

PROGRAMS OFFERED

Minor
Classical Studies

PROGRAM DESCRIPTION

Classical studies provides the opportunity to explore the civilizations of ancient Greece and Rome and thus the roots of Western history, literature, and culture.

As an interdisciplinary field, classical studies encourages students to develop multiple intellectual skills and to think about the world around them from different perspectives. Current course offerings include Greco-Roman literature, mythology, history, archaeology, philosophy, political science, rhetoric, and of course, Latin and Greek. There is a significant

amount of flexibility in the classical studies minor in terms of the courses one takes, but the study of ancient languages is the core of the program, and all minors must take one year of either Latin or Greek.

Classical studies is a great complement to other areas of study because a student can emphasize those aspects of classical civilization that relate to his or her primary field of study (e.g. literature, history, language, etc). In a more general sense, the skills and perspectives one acquires are well suited for those considering graduate school or any kind of post-graduate educational program such as law school or medical school. As a result of being interdisciplinary, the classical studies minor encourages students to employ a variety of methodologies in various disciplines while still developing a cohesive body of knowledge relevant to many fields and professions. The linguistic component ensures that one has a deeper understanding of language and can thus write, speak, and think more clearly. Furthermore, the fact that a great deal of specialized legal and medical terminology is based on Latin and Greek means that a minor in classical studies is great training for someone considering any kind of legal or medical profession.

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, Escalante Hall 237, 970.248.1687.
–or–
Department of Social and Behavioral Sciences, Lowell Heiny Hall 413, 970.248.1696.

FACULTY

M. JASON REDDOCH (2011), Assistant Professor of English; BA, Millsaps College; PhD, University of Cincinnati.

DOUGLAS O'ROARK (1994), Professor of History; BA, MA, PhD, The Ohio State University.

COMPUTER INFORMATION SYSTEMS

PROGRAMS OFFERED

Professional 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

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****.*

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, Dominguez Hall 309, 970.248.1778.

FACULTY

DONALD CARPENTER (2003), Professor of Computer Information Systems; BS, Kearney State College; MBA, University of Colorado-Colorado Springs; PhD, University of Nebraska-Lincoln.

DAVID PUMPHREY (2014), Assistant Professor of Computer Information Systems; BSBA, University of Arkansas, MS, Georgia State University.

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

JOHNNY SNYDER (2005), Professor of Computer Information Systems; BA, Fort Lewis College, MA, PhD, University of New Mexico; MS, 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

RAM BASNET (2013), Assistant Professor of Computer Science; BS, Colorado Mesa University; MS, PhD, New Mexico Institute of Mining & Technology.

WARREN MACEVOY (2001), Professor of Computer Science; BS, Colorado Mesa University; MS, PhD, University of Arizona.

LORI PAYNE (1996), Professor of Mathematics and Computer Science and Department Head of Computer Science, Mathematics and Statistics; BA, Colorado Mesa University, MS, New Mexico Institute of Mining & Technology; PhD, University of Northern Colorado.

GARY RADER (1995), Professor of Computer Science; BA, MA, PhD, University of Pennsylvania; MBA, University of Phoenix.

CONSTRUCTION MANAGEMENT

PROGRAMS OFFERED

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

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
Department of Business, Dominguez Hall 309, 970.248.1778.

FACULTY

KELLY BEVILL (2011), Assistant Professor of Construction Management, BS, University of Colorado-Boulder; MS, Cornell University.

TROY MILLER (2013), Assistant Professor of Construction Management, BS, Brigham Young University; MS, Colorado State University.

CONSTRUCTION TECHNOLOGY

The Craft programs are inactive for the 2014-15 academic year.

PROGRAMS OFFERED

Associate of Applied Science
Construction Technology – Supervision

PROGRAM DESCRIPTION
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

GLENN HOFF (2013), Technical Instructor of Construction Technology; BA, California Polytechnie State university.

CRIMINAL JUSTICE

PROGRAMS OFFERED

Associate of Applied Science
Criminal Justice (WCCC)
Bachelor of Arts
Criminal Justice
Bachelor of Applied Science
Criminal Justice - POST Academy
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 or Graduate School.

The Bachelor of Applied Science in Criminal Justice combines the POST requirements of the AAS degree with the academic rigor of the baccalaureate degree.

The criminal justice minor is designed to provide students interested in the justice system with the knowledge, communication and critical thinking skills necessary for success in their field.

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 five additional specified courses to earn an AAS.

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

FACULTY
JANE QUIMBY (2012) Director of Department of Public Safety; BS, University of Utah; JD, University of Denver.

Baccalaureate Degree: Department of Social and Behavioral Sciences, Lowell Heiny Hall 413, 970.248.1696.

FACULTY
MICHAEL DELANEY (2008), Assistant Professor of Criminal Justice; BA, Transylvania University; JD, Salmon P. Chase College of Law; PhD, University of Cincinnati.

KATIE DREILING (2011), Assistant Professor of Criminal Justice; BA, MS, St. Cloud State University; PhD, South Dakota State University.

JOHN REECE (2006), Associate Professor of Criminal Justice; BA, Mesa State College; MPA, University of Colorado-Denver; PhD, Northcentral University.

SHANELL SANCHEZ (2013), Assistant Professor of Criminal Justice; BA, University of Northern Colorado; MA, PhD, University of Nebraska-Lincoln.

CULINARY ARTS

PROGRAMS OFFERED
Technical Certificate
Culinary Arts
Associate of Applied Science
Culinary Arts

PROGRAM DESCRIPTION
The culinary arts program trains people interested in developing professional food preparation and management skills. From future chefs to foodies, develop your basic cooking and baking techniques, or take your career to the next level at the WCCC Culinary Arts Center in Grand Junction, Colorado. Small class sizes translate to personal attention given students by our highly skilled and respected culinary instructors. Interaction between students and local diners at Chez Lena restaurant complements marketing, dining room management, and advanced cooking coursework. Whether you want to start seriously playing with food or start your own business, discover your passion at Western Colorado Community College/Colorado Mesa University.

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, CHE (1999), Assistant Technical Professor and Program Coordinator of Culinary Arts; Certified Hospitality Educator; AAS, Colorado Mesa University

WAYNE SMITH CEC, CCE (1998), Assistant Technical Professor of Culinary Arts; Certified Executive Chef; AAS, Mesa State College.

JONATHAN ST. PETER, CEC, CCE (2004), Assistant Technical Professor of Culinary Arts; Certified Chef Educator; AAS, 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.

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 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.

FACULTY
SHERRY SCHREINER (2009), Director, Early Childhood Education; B.S., Colorado State University; M.S., University of Northern Colorado, Ph.D., Colorado State University.

EDUCATION: TEACHER LICENSURE

PROGRAMS OFFERED
Coursework Leading to Initial Licensure
MA in Education
Educational Leadership
English for Speakers of Other Languages
Exceptional Learner
Initial Teaching Licensure (Elementary; Secondary)
Teacher Leader
Graduate Certificate
Educational Leadership
English for Speakers of Other Languages
Exceptional Learner
Initial Teaching Licensure (Elementary; Secondary)
Teacher Leader

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, Dominguez Hall, Suite 109, 970.248.1786.

PROGRAM DIRECTOR
VALERIE DOBBS (2008), Director, Center for Teacher Education; BA, The Ohio State University; MA, Virginia Tech University.

FACULTY
BLAKE BICKHAM (2007), Associate Professor of Teacher Education; BA, MA, Texas A&M University; EdD, University of Houston.

CYNTHIA CHOVICH (2007), Associate Professor of Teacher Education; BA, California State University,-San Marcos; MA, Grand Canyon University; EdD, Walden University.

JENNIFER DANIELS (2011), Assistant Professor of Teacher Education; PhD, Walden University; MEd, Loyola College; BA, SUNY - Oswego State.

LISA FRIEL (1998), Professor of Teacher Education; BA, University of California-Santa Barbara; MEd, EdD, Northern Arizona University.

JEAN GAULEY, Instructor of Teacher Education; BSEd, University of Vermont; MA, PhD, University of Denver.

SANDRA MURRAY, Instructor of Teacher Education; BA, MA, 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; AAS, Richland Community College.

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

EMERGENCY MEDICAL SERVICES

The Paramedic programs are inactive for the 2014-15 academic year.

PROGRAMS OFFERED

Technical Certificate

Emergency Medical Technician – Basic

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.

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

SPECIAL REQUIREMENTS

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

PAM HOLDER, Instructor of Emergency Medical Technician and responder courses's; AS, Front Range Community College.

ENERGY MANAGEMENT/ LANDMAN

PROGRAMS OFFERED

Professional 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, Dominguez Hall 309, 970.248.1778.

FACULTY

CLINT CRIPE (2013), Assistant Professor of Business; BS, Utah State University; MA, Minnesota State University; JS, Oklahoma City University.

ENGINEERING

SEE MECHANICAL ENGINEERING

ENGLISH

PROGRAMS OFFERED

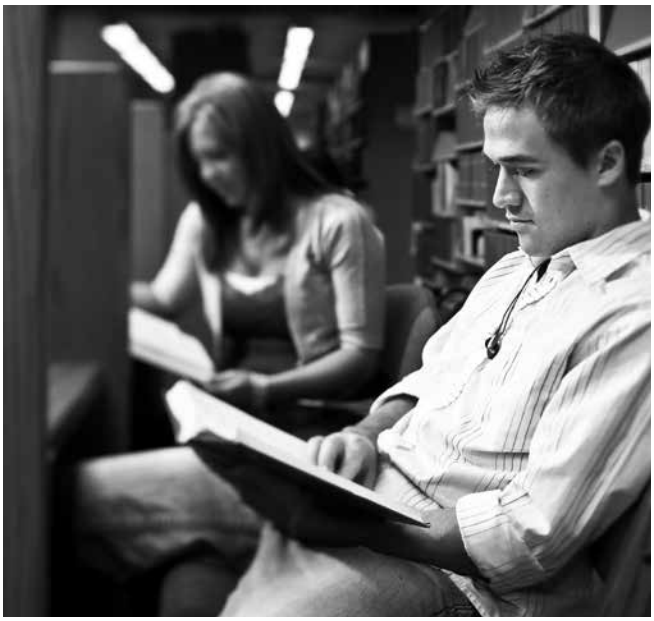
Bachelor of Arts

English – Literature
English – Writing
English – Secondary Education

Minors

English

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 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, Escalante Hall 237, 970.248.1687.

FACULTY

JULIE BARAK (1997), Professor of English; BA, MA, Creighton University; PhD, University of Nebraska.

KATE BELKNAP, Instructor of English; BA, The University of the South; MA, University of Dallas.

JULIE BRUCH (2002), Professor of English; BA, Western Michigan University; MA, PhD, University of Kansas, Lawrence.

BONNIE BUTLER, Instructor of English; BA, Fort Lewis College; MA, Colorado State University.

ROBIN CALLAND (2009), Assistant Professor of English; BA, University of Colorado, Denver; MA, PhD, University of Colorado Boulder.

COLIN CARMAN, Instructor of English; BA, Hamilton College; MA, University of California, Santa Barbara; PhD University of California, Santa Barbara.

CAROL CHRIST, Instructor of English; BA, Mesa State College; MFA, Colorado State University.

RHONDA CLARIDGE, Instructor of English; BA, New York University; MA, University of Colorado.

BARBARA GEIGER, Instructor of English; BA, MA, PhD, Texas Tech University.

T J GERLACH (2005), Associate Professor of English; BA, MFA, University of Utah; PhD, University of Denver.

KURTIS HAAS (1999), Professor of English; BA, MA, Truman State University; PhD, University of Nebraska.

KRISTEN HAGUE (2001), Associate Professor of English; BA, Providence College; MA, PhD, University of New Mexico.

JENNIFER HANCOCK (2010), Assistant Professor of English; BA, Oklahoma State University; MFA, Sarah Lawrence College; PhD; Oklahoma State University.

MICHELE HANSON, Instructor of English and French; BA, University of California, Santa Barbara; MA, University of New Hampshire; MLS, University of Arizona.

LABECCA JONES, Instructor of English; BA Colorado Mesa University; MA Oklahoma State University.

JEREMY JURGENS, Instructor of English; BS, Utah Valley University; MA, Oregon State University.

BARRY LAGA (1997), Professor of English and Department Head of Languages, Literature and Mass Communication; BA, MA, Brigham Young University; PhD, Purdue University.

ANN LEADBETTER, Instructor of English; BA, University of Utah; MA, University of New Mexico.

GABRIELE MAYER-HUNKE, Instructor of English and German; BS, MS, BA, MA, University of Wuerzburg (Germany).

ALLISON MORRIS, Instructor of English; BA, MA, Texas A&M University.

MAUREEN NEAL (1995), Professor of English; BA, University of Denver; MA, Western State College; PhD, Texas A&M University.

JOHN NIZALOWSKI, Instructor of English; BA, Binghamton University; MA, University of Delaware.

RANDY PHILLIS (1993), Professor of English; BA, MFA, Wichita State University; PhD, Oklahoma State University.

M. JASON REDDOCH (2011), Assistant Professor of English; BA, Millsaps College; PhD, University of Cincinnati.

WILLIAM WRIGHT (1998), Professor of English; BA, Linfield College; MA, University of New Hampshire; PhD, University of Arizona.

ENVIRONMENTAL SCIENCE AND TECHNOLOGY

PROGRAMS OFFERED

Bachelor of Science

Environmental Science and Technology – Environmental Science

Pollution Monitoring 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; BA, Trinity University; MA, PhD, University of Florida.

TAMERA MINNICK (2002), Associate Professor of Environmental Science and Technology; BS, University of Nebraska; PhD, Colorado State University.

RUSSELL WALKER (1993), Professor of Environmental Science and Technology and Department Head of Physical and Environmental Sciences; AB, Oberlin College; PhD, 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; BA, MA, Humboldt State University; PhD, University of New Mexico.

KEITH FRITZ (1997), Associate Professor of Kinesiology; BS, Oregon State University; MS, PhD, University of New Mexico.

JEREMY HAWKINS (2013), Assistant Professor of Kinesiology and Director of the Athletic Training Program; BS, Brigham Young University; MS, Oregon State University; PhD, Brigham Young University.

KRISTIN HEUMANN (2011), Assistant Professor of Kinesiology; BA, Northwestern College; MS, PhD, Arizona State University.

GUY LEADBETTER (1993), Professor of Kinesiology and Head Coach, Women's Cross Country; BA, Bowdoin College; MS, University of Montana; PhD, University of New Mexico.

STEVEN ROSS MURRAY (1998), Professor of Kinesiology; BS, University of North Alabama; MS, DA, Middle Tennessee State University.

ELIZABETH SHARP (2011), Assistant Professor of Kinesiology; BS, MEd., Arkansas Tech University; PhD, Middle Tennessee State University.

GERALD SMITH (2012), Associate Professor of Kinesiology and Director Monfort Family Human Performance Laboratory; BS, Walla Walla College; MS, University of Illinois; PhD, The Pennsylvania State University.

FORENSIC ANTHROPOLOGY

PROGRAMS OFFERED
Minor
Forensic Anthropology

PROGRAM DESCRIPTION
Forensic anthropology is the use of anthropological techniques to assist law enforcement, with the focus on the study of the human skeleton. Generally, physical anthropologists concentrate on the recovery and identification of human remains, most often where the victim's remains are in advanced stages of decomposition. There are two main foci—osteology (the study of bones) and taphonomy (the study of how organic matter decays). An osteological analysis of a skeleton assesses the age, sex, ancestry, stature, and unique features of an individual from the skeleton. The study of taphonomy helps to determine a post-mortem interval and what happened to a body from the time of death to the time of discovery.

The minor is suited to those majoring in criminal justice or biology with an interest in death investigation.

CONTACT INFORMATION
Department of Social and Behavioral Sciences, Lowell Heiny Hall 413, 970.248.1696

FACULTY
MELISSA CONNOR (2011), Associate Professor of Forensic Anthropology, Director of the Forensic Investigation Research Station; PhD, University of Nebraska, Lincoln; MA,BA, University of Wisconsin.

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 AND TECHNOLOGY

PROGRAMS OFFERED
Professional 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.

GEOSCIENCES

PROGRAMS OFFERED
Associate of Science
Geology Emphasis
Bachelor of Science
Geosciences – Environmental Geology
Geosciences – Geology
Geosciences – Geology - Secondary Education
Minors
Geology
Watershed Science

PROGRAM DESCRIPTION

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 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.

Geology–Secondary Education

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.

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; BS, Brown University; MS, PhD, University of Colorado.

REX COLE (1995), Professor of Geology; BS, Colorado State University; PhD, University of Utah.

JONATHAN COOLEY; Instructor of Geology; BA, University of Colorado; MS, Montana State University

HAROLD HASE, Instructor of Geology; BS, University of Wisconsin-Milwaukee; MS, Michigan Tech University.

VERNER JOHNSON (1989), Professor of Geology; BA, MS, Southern Illinois University; PhD, University of Tennessee.

LAWRENCE JONES, Instructor of Grology; BS, Fort Lewis College; MS, Northen Arizona University; PhD, University of Wyoming

RICHARD LIVACCARI (1997), Professor of Geology; BS, University of New Mexico; MS, State University of New York-Albany; PhD, University of New Mexico.

DONN LORHAMMER, Instructor of Geology; BS, University of Utah; MS, Naval Postgraduate School.

GIGI RICHARD (2002), Associate Professor of Geology; BS, Massachusetts Institute of Technology; MS, PhD, Colorado State University.

GRAPHIC DESIGN

PROGRAMS OFFERED

Bachelor of Fine Arts

Graphic Design – Animation and Motion Graphics
Graphic Design – Visual Design

Minors

Graphic Design

PROGRAM DESCRIPTION

The animation and motion graphics 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 visual design concentration focuses on established industry standards in print design, web design and applied illustration. The graphic design Mac Lab 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, after successful admitance into the graphic design program following the sophomore review. 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; BFA., MA, Stephen F. Austin State University; MFA, West Texas A&M.

ELI MARCO HALL (2012), Assistant Professor of Art-Graphic Design; MFA, Colorado State University; BFA, Missouri State University; MA, Lindenwood University.

CAROLYN QUINN-HENSLEY (2000), Professor of Art; BFA, MFA, University of Hawaii.

HEALTH INFORMATION TECHNOLOGY SYSTEMS

PROGRAMS OFFERED

Professional Certificate
Graduate Certificate

PROGRAM DESCRIPTION

This multi-disciplinary certificate prepares students in foundations/introduction to healthcare informatics, database management systems, and information systems security and privacy. Offered at the undergraduate and gradute level, the certificate combines coursework in business, health sciences, and nursing.

CONTACT INFORMATION

Department of Business, Dominguez Hall 309, 970.248.1778 or Department of Health Sciences, Maverick Center 167, 970.248.1398.

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, Lowell Heiny Hall 413, 970.248.1696.

FACULTY

ERIKA JACKSON (2010), Assistant Professor of History; BA, Michigan State University; MA, Loyola University; PhD, Michigan State University.

JUSTIN LILES, Instructor of History; BA, MA, University of North Texas; PhD, University of South Carolina.

DOUGLAS O'ROARK (1994), Professor of History; BA, MA, PhD, The Ohio State University.

VINCENT PATARINO, JR. (2011), Assistant Professor of History; BA, BS, MA, PhD, University of Colorado-Boulder.

ADAM ROSENBAUM (2011), Assistant Professor of History; BA, Virginia Wesleyan College; MA, Old Dominion University; PhD, Emory University.

STEVEN SCHULTE (1989), Professor of History; BA University of Wisconsin-River Falls; MA, Colorado State University; PhD, University of Wyoming.

SARAH SWEDBERG (1999), Associate Professor of History; BA, State University of New York - Plattsburgh; MA, PhD, Northeastern University.

HOSPITALITY MANAGEMENT

PROGRAMS OFFERED

Associate of Applied Science
Hospitality Management
Bachelor of Applied Science
Hospitality Management
Bachelor of Business Administration
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. 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, Dominguez Hall 309, 970.248.1778.

FACULTY

BRITT MATHWICH (2011), Assistant Professor of Business; BA, University of New Mexico; MA, Eastern New Mexico University.

HUMANITIES

PROGRAMS OFFERED

Associate of Arts
Humanities Emphasis

PROGRAM DESCRIPTION
The Associate of Arts (AA) degree can: 1) function as a terminal degree; and 2) function as a pathway into a baccalaureate degree in the humanities. 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… 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; Escalante Hall 237, 970.248.1687.

INSURANCE

PROGRAMS OFFERED
Professional 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 in the insurance industry.

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, Dominguez Hall 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, Lowell Heiny Hall 413, 970.248.1696.

FACULTY
TIMOTHY CASEY (1998), Professor of Political Science; BS, Northern Arizona University; MA, University of San Francisco; PhD, Arizona State University.

JAMES CURTSINGER, Instructor of Geography; BA, MA, Colorado State University.

KINESIOLOGY

PROGRAMS OFFERED
Bachelor of Arts
Kinesiology – Adapted Physical Education
Kinesiology – Fitness & Health Promotion
Kinesiology – K-12 Teaching
Minor
Personal Training
Certificate
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 and 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.)

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****.*

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. 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; BS, Clemson University; MA, The Citadel; JD, University of South Carolina; EdD, United States Sports Academy.

JILL CORDOVA (1992), Professor of Kinesiology and Department Head of Kinesiology; BA, MA, Humboldt State University; PhD, University of New Mexico.

KEITH FRITZ (1997), Associate Professor of Kinesiology; BS, Oregon State University; MS, PhD, University of New Mexico.

JEREMY HAWKINS (2013), Assistant Professor of Kinesiology and Director of the Athletic Training Program; BS, Brigham Young University; MS, Oregon State University; PhD, Brigham Young University.

KRISTIN HEUMANN (2011), Assistant Professor of Kinesiology; BA, Northwestern College; MS, PhD, Arizona State University.

GUY LEADBETTER (1993), Professor of Kinesiology and Head Coach, Women's Cross Country; BA, Bowdoin College; MS, University of Montana; PhD, University of New Mexico.

STEVEN ROSS MURRAY (1998), Professor of Kinesiology; BS, University of North Alabama; MS, DA, Middle Tennessee State University.

ELIZABETH SHARP (2011), Assistant Professor of Kinesiology; BS, MEd, Arkansas Tech University; PhD, Middle Tennessee State University.

LANDMAN/ ENERGY MANAGEMENT

SEE ENERGY MANAGEMENT/LANDMAN

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 students the opportunity to craft a plan of study to suit their 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, Dominguez Hall 109, 970.248.1786.

Non-Education Option: Department of Languages, Literature and Mass Communication, Escalante Hall 237, 970.248.1687,
–or–
Department of Social and Behavioral Sciences, Lowell Heiny Hall 413, 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 Technolgy – Welding Technology
- Manufacturing Technology – CAD/CAM
- Manufacturing Technology – Basic Welder

Associate of Applied Science
- Manufacturing Technology – Computer-Aided Design
- Manufacturing Technology – Machining Technology
- Manufacturing Technology – Welding Technology

PROGRAM DESCRIPTION

Computer Aided Design Technology
The Computer Aided Design program prepares the student for employment in Mechanical, Architectural and Civil Design. Through the use of current CAD software, students will build their skill level beginning with two dimensional drawings and working their way up to three dimensional solid based modeling. With the majority of the work completed on the computer and a project in the area of student's interest which ties the course to real world concepts. Career options include Architectural Drafter/Designer, Mechanical Drafter/ Designer and Civil Drafter/Designer.

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, students 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 Robotic Welding with state-of-the art welding instruction.

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

MICHAEL CARLTON (2012), Technical Instructor of Manufacturing Technology - Machining; AA, Mesa Community College.

WILLIAM (BILL) CAMPBELL (2013), Technical Instructor of Manufacturing Technology-Welding; AAS, BS, Utah Valley University.

WILLIAM MCCRACKEN, JR. (2002), Assistant Technical Professor of Manufacturing Technology-Machining; AAS, Mesa State College.

DENIS THIBODEAU (1999), Technical Instructor of Manufacturing Technology-CAD; AAS, Rogue Community College.

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

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****.*

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 213) 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; Escalante Hall 237, 970.248.1687.

FACULTY

ADAM COCHRAN, Instructor of Mass Communication; MA, University of Memphis; BA Mesa State College.

DANIEL FLENNIKEN (2005), Associate Professor of Mass Communication; BA, MA, University of Colorado.

GREGORY MIKOLAI, Instructor of Mass Communication; BA, College of Saint Thomas.

ERIC SANDSTROM (2011), Assistant Professor of Mass Communication; BA, MA, Miami (Ohio) University.

REGIS TUCCI (1999), Assistant Professor of Mass Communication; BA, MA, 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.

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

CHRIS AQUINTO, Instructor of Mathematics; BS, Colorado Mesa University; MS, University of Colorado.

ANDREA BARNARD; Instructor of Mathematics; BS, BYU-Idaho; MEd, University of Texas.

CATHERINE BONAN-HAMADA (1996), Professor of Mathematics; BS, MS, Colorado State University; PhD, University of Colorado.

EDWARD BONAN-HAMADA (1997), Associate Professor of Mathematics; BA, University of Rochester; MA, University of Hawaii; PhD, University of Colorado.

LISA DRISKELL (2010), Assistant Professor of Mathematics; BS, Central Michigan University; PhD, Purdue University.

MARCUS FISCHER, Instructor of Mathematics; BS, Mesa State College; MS, Ruhr Universitaet Bochum.

TRACII FRIEDMAN (2002), Professor of Mathematics; BS, Saint Joseph's University-Philadelphia; MS, PhD, Lehigh University.

DARREN GEMOETS (2013), Assistant Professor of Statistics; BS, Fort Lewis College; MS, Montana State University-Bozeman; PhD, University of Wyoming.

PHILIP GUSTAFSON (1998), Professor of Mathematics; BS, State University of New York-Oneonta; MS, PhD, Washington State University.

JAMES LAPP, Instructor of Mathematics; BA, MS, Humboldt State University.

PHILIP KAVANAGH (1994), Associate Professor of Mathematics; BSc, MSc, University College Dublin, National University of Ireland; PhD, University of Wisconsin.

MAX L. MCFARLAND, Instructor of Mathematics; AS, Colorado Mesa University; BS, Mesa State College; MS, University of Colorado.

RICHARD OTT (2006), Associate Professor of Statistics; BS, St. Mary's University; MS, University of Missouri-Rolla; PhD, Rice University.

ERIK PACKARD (1996), Associate Professor of Mathematics; BS, MS, PhD, Texas Tech University.

LORI PAYNE (1996), Professor of Mathematics and Computer Science and Department Head of Computer Science, Mathematics and Statistics; BA, Mesa College; MS, New Mexico Institute of Mining & Technology; PhD, University of Northern Colorado.

MARKUS REITENBACH (2006), Associate Professor of Mathematics; MS, University of Ulm; PhD, Syracuse University.

SHAWN ROBINSON (2011), Assistant Professor of Mathematics; BS, MS, Emory University; PhD, University of North Carolina at Chapel Hill.

DANIEL SCHULTZ-ELA (2006), Associate Professor of Mathematics Education; BA, Carleton College; MS, Brown University; PhD, University of Minnesota.

RISHARRA STULC, Instructor of Mathematics; BS, University of Northern Colorado; MEd, Grand Canyon University.

WAYN KAUI WARD, Instructor of Mathematics; BS, Mesa State College; MS, University of Nevada, Las Vegas.

ZHONG WU (1989), Professor of Mathematics; BS, China University of Science and Technology; PhD, University of Cambridge.

MECHANICAL ENGINEERING

PROGRAMS OFFERED

Bachelor of Science
Mechanical Engineering
(degree awarded by the University of Colorado Boulder)

Colorado Mesa University and the University of Colorado 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

Archuleta Engineering Center, 2510 Foresight Circle, Grand Junction, CO, 81505, 970.248.1400
-or-
Department of Physical and Environmental Sciences, Wubben Hall 222, 970.248.1993.

PROGRAM DIRECTOR

TIMOTHY BROWER (2009), Director, CMU/CU-Boulder Mechanical Engineering Partnership Program; BS, Idaho State University; MS, Montana State University; PhD, Colorado State University.

FACULTY

ANDREW AFFRUNTI (2011), Instructor of Mechanical Engineering; BS, MS, University of Illinios.

SCOTT BEVILL (2010), Assistant Professor of Mechanical Engineering; BS, University of Denver; MS, PhD, Stanford University.

FRANCISCO CASTRO (2010), Instructor of Mechanical Engineering; BS, Pontifical Catholic University of Peru; MS, University of Colorado, Denver; PhD, University of Colorado, Boulder.

B. SCOTT KESSLER (2011), Assistant Professor of Mechanical Engineering Technology; BS, MS, PhD, University of Missouri.

NATHAN MCNEIL (2012), Instructor of Mechanical Engineering; BS, WallaWalla University; MS, Georgia Institute of Technology; PhD, Purdue University.

FARZAD TAGHADDOSI (2012), Assistant Professor of Mechanical Engineering; BSc, University of Tabriz, MASc, Concordia University, MSc, Wichita State University, PhD, McGill University.

MEDICAL LABORATORY TECHNICIAN

PROGRAMS OFFERED

Associate of Applied Science
Medical Laboratory Technician

PROGRAM DESCRIPTION

The Medical Laboratory Technician (MLT) Program at Colorado Mesa University is five semesters in length. General education requirements and foundation courses are taken the first year and summer, the second year consists mainly of MLT program courses, followed by one semester of clinical internship at an affiliated site in western Colorado.

The majority of MLT courses are delivered in a hybrid format. Lecture is delivered online with lab sessions held on campus. All MLT courses are taken concurrently for each semester offered and in sequence starting in the fall.

The student will receive an Associate of Applied Science degree upon successful completion of the program. The graduate is eligible to take the Medical Laboratory Technician national certification exam through the American Society of Clinical Pathologists (ASCP). A passing score on the ASCP exam will allow the student to use the credentials of MLT (ASCP) CM after their name.

Phlebotomy courses are also offered to non-degree seeking students on a permission and space available basis; see the health sciences department for additional information.

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

SPECIAL REQUIREMENTS

Admission into the University does not guarantee admission into the medical laboratory technology program which requires a separate application submitted in the spring for fall semester courses. Students planning on enrolling in

medical laboratory technology courses must submit additional requirements. See the health sciences department for additional information.

CONTACT INFORMATION
Department of Health Sciences, Maverick Center 167, 970.248.1398.

FACULTY
TRACY MATTHEWS (2010), MS, MLS, (ASCP) CM; MLT Program Director; BS, University of Arkansas for Medical Sciences; MS, University of North Dakota

MEDICAL OFFICE ASSISTANT

PROGRAMS OFFERED
Technical Certificate
Medical Office Assistant
Associate of Applied Science
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
CATHY HARTT (2012), Director of Medical Office Assistant; AAS, AS, BS, Mesa State College; MS, University of Utah.

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.

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****.*

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; AS, Snow College-Utah; BFA, Utah State University; MM, DMA, University of Illinois.

MARY-LINDSEY BAILEY, Instructor of Music; DMA, MM, University of Cincinnati; BM, University of South Carolina.

JACK DELMORE (1992), Professor of Music; BM, University of Massachusetts-Lowell; MM, New England Conservatory of Music; DMA, University of Arizona.

SEAN FLANIGAN (2006), Associate Professor of Music; BS, MM, University of Illinois; DMA, University of North Texas.

ALEJANDRO GOMEZ-GUILLEN (2014), Assistant Professor of Music. DMA (ABD), and MM in orchestral conducting, University of Colorado; MM in Violin Performance, University of Colorado; BM in Violin Performance, Texas Christian University.

JONATHAN HINKLE (2012), Assistant Professor of Music; BME, MME, PhD, Florida State University.

CALVIN HOFER (1998), Professor of Music and Department Head of Music; BA, South Dakota State University; MME, University of Wisconsin; DMA, University of North Texas.

ARTHUR HOULE (2006), Professor of Music; BM, University of Massachusetts-Lowell; MM New England Conservatory; DMA, University of Iowa.

DARIN KAMSTRA (2004), Associate Professor of Music; BA, BM, Eastern Washington University; MM, University of Northern Colorado; DMA, University of Illinois at Urbana-Champaign.

KATHLEEN RUHLEDER Instructor of Voice; BM, California State University - Northridge; MM, DMA, Arizona State University.

KRISTEN YEON-JI YUN (2012), Assistant Professor of Music; BM, MM, Seoul (Korea) National University; DMA, Indiana University.

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.

Students admitted to nursing programs must undergo a background check and maintain current CPR certification and professional liability insurance.

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
LPN, Nursing
Bachelor of Science
RN-BSN, Nursing
Bachelor of Science, Nursing
Master of Science, Nursing
Doctor of Nursing Practice

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 licensed practical nurses who are seeking to obtain an RN 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 RN-BSN nursing program enrolls Registered Nurses from associate degree and diploma programs to the baccalaureate program with advanced standing. The Registered Nurse student will be considered in terms of the Colorado Nursing Articulation Model. The RN may complete the professional component of the program by attending college full time or part online. Beginning with the fall semester of 2014, the RN to BSN program will offer an accelerated model of instruction. Courses will be offered in a 7-week online format. There will be five start dates for the 7-week format and students may take one or two classes per session. 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. 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-and-a-half-year program provides educational experiences which 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 needs 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.

The Master of Science in Nursing (MSN) program is designed for students already possessing a baccalaureate degree in nursing and adds the first graduate step on the nursing career ladder. The MSN degree will provide graduates with a foundation for practice as a leader and educator in health care systems or academic settings. The MSN program is a hybrid format, providing flexibility for students to remain in their current work positions and home communities in western Colorado using online course delivery methods; this format provides opportunities for personal interaction with faculty and peers in focused intensive sessions at selected points during each semester. MSN graduates will be prepared to advance to higher levels of nursing education including Doctor of Nursing Practice (DNP) or Doctoral of Philosophy in Nursing (PhD) programs. Admission to the University does not guarantee admission to the program; a separate admission application to the program is required. The MSN graduate nursing program is accredited by the Commission of Collegiate Nursing Education (CCNE).

The Doctor of Nursing Practice (DNP) degree is designed for those nurses who are interested in assuming an advance practice nursing role as a Family Nurse Practitioner (FNP).

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****.*

DNP graduates are prepared as clinical experts in the delivery of primary care, with a focus on critical thinking, leadership, and political policy skills needed to advocate and create changes in healthcare practice at all levels. The program is a hybrid format, providing flexibility for students to remain in their current work positions and home communities in western Colorado using online course delivery methods. Opportunities for personal interaction are included with faculty and peers in focused intensive sessions at selected points during each semester. Admission to the University does not guarantee admission to the program; a separate admission application to the program is required. The DNP graduate nursing program is accredited by the Commission of Collegiate Nursing Education (CCNE).

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

SPECIAL REQUIREMENTS
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.

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.

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.

Any RN or LPN who desires to enroll in a nursing course for personal enrichment only must secure permission from the course instructor.

The MSN is the fourth rung of the career ladder at Colorado Mesa University. Admission requires a Bachelor of Nursing degree from a nationally accredited institution. Prior learning experiences will be evaluated on an individual basis.

The DNP program is the final step on the nursing career ladder at Colorado Mesa University. MSN/Advanced Practice prepared registered nurses must submit a separate application for the DNP program. Prior learning experiences will be evaluated on an individual basis.

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.

MSN Program: November 1 for spring entrance, April 1 for summer/fall entrance

DNP Program: November 1 for spring entrance, April 1 for summer/fall entrance

Students admitted to nursing programs must undergo a background check and maintain current CPR certification and professional liability insurance.

Undergraduate students must have a 2.0 ("C") on a 4.0 scale or higher grade for all courses required for completion of the undergraduate nursing programs (PN, AAS, BSN, RN-BSN). This policy applies regardless of when the course was taken.

Graduate students must have a 3.0 ("B") on a 4.0 scale or higher grade for all courses required for completion of the graduate nursing programs (MSN, DNP). This policy applies regardless of when the course was taken. A "C" grade or lower in any required course will not count toward graduation requirements. See Graduate Programs section of this catalog for complete degree requirements.

CONTACT INFORMATION
Department of Health Sciences, Maverick Center 167, 970.248.1398.

FACULTY

SHAUNA ACKER, (2013), Assistant Professor of Nursing; BSN, MSN Graceland University Iowa; DNP University of Colorado at Colorado Sprinngs.

DEBRA BAILEY, RN, (2006), Associate Professor of Nursing and Director of Health Sciences; AS, BSN, Mesa State College; MS, University of Colorado; MSFNP, University of Colorado; PhD, University of Colorado.

DIANA BAILEY, RN, (2010), Assistant Professor of Nursing; AS, BSN, Mesa State College; MSN, Walden University.

ADRIENNE BETHANCOURT, (2013) Associate Professor of Nursing; BSN, St. Louis University; MSN, Louisiana State University Medical Center; DNSc, Louisiana State University Health Sciences.

TONYA CHAPIN, RN (2008), Associate Professor of Nursing and PN Program Director; BSN, Mesa State College; MSN, University of Northern Colorado.

KELLY COFFIN, RN, (2009), Assistant Professor of Nursing; AS, BSN, Washburn University; MSN, Walden University.

LYNN DUNCAN, (2011), Instructor of Nursing; BSN, South Dakota State University

JULIET EVANS, (2012), Instructor of Nursing; BSN Colorado Mesa University

CATHY FELLER, RN (2011), Assistant Professor of Nursing; BSN, University of Maine; MSN, Walden University.

SANDY FORREST, RN (1980), Professor of Nursing and Graduate Program Director; BSN, Florida International University; MSN, University of Miami; PhD, University of Texas.

SUSAN GOEBEL, RN (1998), Associate Professor of Nursing and BSN Program Director; BSN, MS, University of North Dakota.

COURTNEY KASUN, (2013), Assistant Professor of Nursing, BSN University of Kansas; MNSc Kings College, London

PEGGY LINK, (2013), Assistant Professor of Nursing; AS, Mesa State College; BS, University of California-Davis; MSN, Grand Canyon University

BEVERLY LYNE, RN (2011), Assistant Professor of Nursing; BS, University of Colorado Health Sciences Center School of Nursing; MSN, University of Colorado Health Sciences Center School of Nursing.

BRIDGET MARSHALL, Assistant Professor of Nursing; DNP, University of Utah College of Nursing; BS & MS, University of Colorado Health Sciences Center, School of Nursing.

SUSAN MATHEWS, (2007), Instructor of Nursing; BSN, Colorado Mesa University, ASN, Excelsior College: Albany, New York, NREMT-P: Pueblo Community College: Pueblo, CO, BS Secondary Education: Adams State College, MT (ASCP): St. Elizabeth Hospital Dayton, OH, BA Life Science Otterbein College, Westerville, OH

LINDA PILCHER, (2013) Instructor of Nursing; ADN, Mesa College; BA, Western State College; BSN, MSN, South University Savannah Georgia

KRISTINE REUSS, RN (1990), Professor of Nursing; BSN, MSN, PhD, University of Colorado.

CATHY SHAWCROFT, (2009), Instructor of Nursing; BSN, Colorado Mesa University, MSN, Walden University, Baltimore, MD

GENELL STITES, RN (2008), Associate Professor of Nursing and LPN-AAS Program Director; BSN, University of Northern Colorado; MSN, Regis University.

KAREN URBAN, Assistant Professor of Nursing (2013); BSN, MSN, University of Pittsburgh School of Nursing.

JUDY WILLIAMS, RN (2010), Assistant Professor of Nursing; BSN, Mesa State College, MSN, Walden University.

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 31 credit hours that may be applied towards an associate's or bachelor'sof applied science degree at Colorado Mesa University.

Students admitted to the POST program must undergo a comprehensive background check.

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

SPECIAL REQUIREMENTS

This is a 16-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

JOHN PIATANESI (2013), Academy Director, BA, Western Illinois University.

JANE QUIMBY (2012) Director of Department of Public Safety; BS, University of Utah; JD, Denver University

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; Escalante Hall 237, 970.248.1687.

FACULTY

LES MILLER (2005), Associate Professor of Philosophy; BA, Mesa State College; MA, PhD, Claremont Graduate University.

PHYSICS

PROGRAMS OFFERED

Associate of Science

Physics Emphasis

Bachelor of Science

Physics

Minors

Physics

PROGRAM DESCRIPTION
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.

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.

CONTACT INFORMATION
Department of Physical and Environmental Sciences, Wubben Science 232, 970.248.1993.

FACULTY

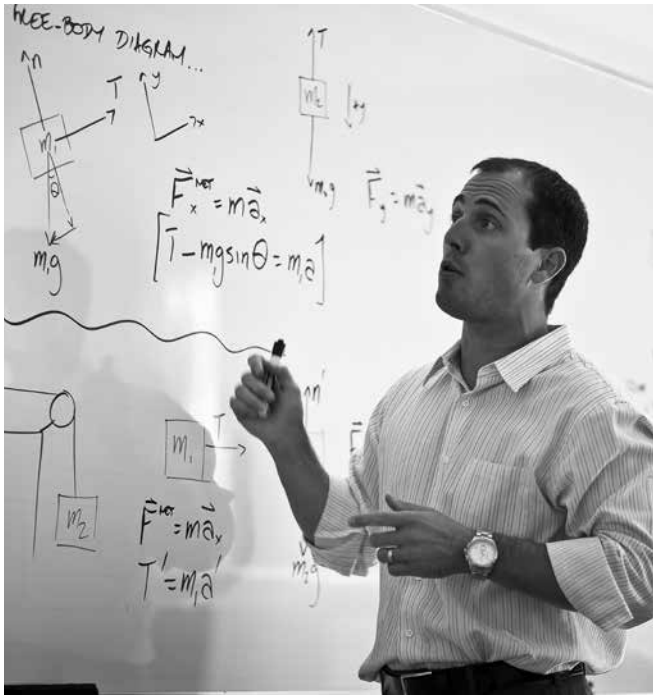
DAVID COLLINS (2006), Associate Professor of Physics; BS, Rhodes University; PhD, University of Texas-Austin.

CHAD MIDDLETON (2006), Associate Professor of Physics; BS, Eastern Illinois University; PhD, University of Tennessee, Knoxville.

ANWAR SHIEKH, Lecturer of Physics; BS, PhD, Imperial College, London University.

WILLIAM TIERNAN (1999), Professor of Physics; BA, Colby College; PhD, University of Massachusetts.

JARED WORKMAN (2011), Assistant Professor of Physics; BS, Temple University; MS, PhD, University of Colorado.



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, non-governmental organizations, the military, advocacy, and fields related to criminal justice. Graduates have been employed as congressional staff members, gubernatorial staff, state agency officials, hold elective office. Graduates have also been admitted to law school or graduate school at: Denver University, Cornell University, Colorado State University, The University of New Mexico, UC Denver, and the University of Colorado.

Political science majors have the opportunity to intern in governmental and nongovernmental organizations. Recent interns have served in the U.S. Congress, the Colorado General Assembly, the Mesa County District Attorney's Office, state-level agencies, for the City of Fruita, and for confressional campaigns. Internships are an excellent way to gain experience and employment while furthering your education. Many of our student interns are now working in jobs they obtained directly as a result of their intern experience. Senior Seminar students develop original research projects. Among recent topics were studies on the equitable funding of higher education, intergenerational inequity in entitlement programs, the impact of high school civics education on voter turnout, state opposition/support of NAFTA, and the expansion of China as a global power. Students have also worked with faculty on research projects (as volunteers or as paid research assistants) relating to the areas of recreation management, natural resource management, and economic development. 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 many other fields, 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.

Desmond Tutu famously said: "Don't raise your voice, improve your arguement." Nowhere does this advice seem more pertinent than in today's political environment. Graduates leave our pgrogram with strong arguments and marketable skills. The goal of the political science faculty is to help students become well-rounded citizens by preparing them to compete in both the employment market and the marketplace of ideas.

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, Lowell Heiny Hall 413, 970.248.1696.

FACULTY

TIMOTHY CASEY (1998), Professor of Political Science; BS, Northern Arizona University; MA, University of San Francisco; PhD, Arizona State University.

JUSTIN GOLLOB (2008), Associate Professor of Political Science; BS, Idaho State University; MA, PhD, Temple 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

CAROLYN FERREIRA-LILLO (2009), Assistant Technical Professor of Technology Integration; BSSE, The City College of New York; MS, Stony Brook University.

JOHN SLUDER (1998), Assistant Technical Professor of Technology Integration.

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, Lowell Heiny Hall 413, 970.248.1696.

FACULTY

SUSAN BECKER (1996), Professor of Psychology; BA, Reed College; MA, University of Colorado-Colorado Springs; PhD, University of Arizona.

KAREN FORD (1984), Professor of Psychology; BA, Mississippi College; MA, Northeast Louisiana; PhD, University of Mississippi.

JESSICA HERRICK (1995), Professor of Psychology and Department Head of Social and Behavioral Sciences; BA, MS, PhD, University of Wyoming.

JAKE JONES (2011), Assistant Professor of Psychology; BS, Bluefield College; MS, Radford University; PhD, Indiana State University.

KRISTEN N. JONES (2011), Assistant Professor of Psychology; BA, Emory & Henry College; MS, Radford University; PhD, Ball State University.

BRIAN PARRY (2008), Assistant Professor of Psychology; BA, University of Utah, MS, PhD, Brigham Young University.

JENNY PEIL, Instructor of Psychology; BS, Colorado State University, MS, PsyD, Florida Institute of Technology.

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, Lowell Heiny Hall 413, 970.248.1696.

FACULTY

ELIOT JENNINGS (2013), Assistant Professor of Public Administration, BS, MPA, PhD, University of North Texas.

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.

FACULTY

JANE QUIMBY (2012) Director of Department of Public Safety; BS, University of Utah; JD, Denver University

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, Craig or Rangely is required.

Following successful completion of the AAS in Radiologic Technology, and ethics and examination requirements, 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 Sciences (BAS) in Radiologic Technology offers radiologic technologists with an associate degree opportunity to achieve a baccalaureate degree in four or five full-time semesters (depending upon prior coursework). The program prepares the graduate to seek certification in at least one additional specialty area in radiologic technology. Dual certification in at least one additional specialty area in radiologic technology as well as advanced areas of radiologic technology.

This can lead to greater employment opportunities, increased compensation, and job security. In an online format, students develop skills in advanced specialty areas in radiologic technology, cross sectional anatomy, advanced patient care, informatics, and the business side of health care. The student must procure a clinical site for completion of the cinical portion of the program. Colorado Mesa University and the clinical site must establish and maintain an affiliation agreement during the time the students is completing the clinical portion.

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 167
970.248.1398.

FACULTY

OLGA GRISIK, MS, RT(R), (CT), (2013), Assistant Professor of Radiologic Technology; ASS, Mesa State College; BS State University Lvivska Politekhnika, Lviv, Ukraine; MS, State University Lvivska Politekhnika, Lviv, Ukraine.

BETTE SCHANS, (1994), Professor of Radiologic Technology; BS, Metropolitan State College; MS, University of Colorado; PhD, Colorado State University.

PATTI WARD, PhD, RT (R), (1998), Professor of Radiologic Technology and Program Director; BS, Colorado Christian University, MEd Lesley University; PhD 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, Lowell Heiny Hall 413, 970.248.1696.

FACULTY

JAMES CURTSINGER, Instructor of Geography; BA, MA, Colorado State University.

SOCIAL WORK

PROGRAMS OFFERED
Bachelor's Degree
Social Work
Minor
Social Work

PROGRAM DESCRIPTION
Social work is a profession dedicated to social and economic justice. Social workers focus primarily on the needs and empowerment of vulnerable, oppressed, at-risk populations, and those living in poverty.

The CMU BSW Program Mission is: "To educate students as generalist social work practitioners who embrace the mission and core values of the social work profession, including issues of diversity, service, the dignity and worth of all people, and social and economic justice."

BACHELOR OF SOCIAL WORK PROGRAM GOALS
To educate students as generalist social work practitioners; with knowledge and understanding of the ecological perspective, the strengths perspective, the empowerment approach, and solid problem solving and case management skills. To assist students in viewing complex human and social issues from a multi-dimensional, multi-level approach involving micro-, mezzo-, and macro-level interventions. To provide opportunities for the application of the social work mission and core values of service, the dignity and worth of all people, the importance of human relationships, integrity, competency, and social and economic justice. To maintain high professional standards and knowledge of the NASW Code of Ethics. To help students strengthen the relationship between theory and practice by engaging them in various service learning projects, leadership development, strong field education placements, and involvement in the social work club.

Professional social workers are found in every facet of community life—in schools, hospitals, mental helath clinics, senior centers, elected office, private practices, prisons, military, corporations, and in numerous public and private agencies that serve individuals and families in need.

SPECIAL REQUIREMENTS
Admission to the University does not guarentee admission to the BSW program; a seperate admission application to the BSW program is required, as discussed below.

BSW ADMISSION REQUIREMENTS
Students must apply to get accepted into the social work program. The application packet is completed during the spring semester of a student's sophomore year. The application packet and admissions criteria includes:

- Completion of at least 60 credits of coursework before admission into the program (junior status).
- Maintenance of a minimum overall GPA of 2.0 and a minimum GPA of 2.5 in social work classes.
- Personal statement and essay that includes why you would like to choose social work as a major, extracurricular and volunteer activities, work experience, career goals and interests, and a commitment to the social work mission, core values, and the NASW Code of Ethics.
- Quality of written material (on application, personal statement, and essay).
- Faculty evaluations, as indicated by class attendance, particiapation, communication skills, and ability to work together with other classmates.
- Student will be notified in writing if they have been accepted into the social work program.
- If accepted into the program, students will be a part of a cohort program that will complete courese work together in a sequential format, for their junior and senior years.
- Faculty interview.

* The social work program at CMU does not grant course credit for life experience or previous work experience.

The 24 credit-hour minor in Social Work can be combined with a major in any field. No application process is required for the minor. This minor will help equip students who desire to work in a human services field upon graduation. A minor in Social Work is also beneficial for any student hoping to gain admissions into a master's degree in Social Work (MSW) 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, Lowell Heiny Hall 413, 970.248.1696.

FACULTY
KYMBERLY OWENS (2011), Assistant Professor of Social Work; MSW, Walla Walla University; BSW, University of Montana

SOCIOLOGY

PROGRAMS OFFERED
Bachelor of Arts
Sociology
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.

Sociology majors gain important skills in critical thinking, research methods, and responsible citizenship. Sociology students 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.

The degree program in Sociology is flexible, and allows students to complete the requirements for many minors, including a new minor in Social Work, within the 120 credit hours required to earn a Bachelor of Arts degree. Sociology students working toward a minor in Social Work have the opportunity to do an internship, which gives them the opportunity to put their knowledge to work and to perform useful community service.

A minor in Sociology enhances virtually any academic or professional major. Students who minor in Sociology develop knowledge of human interactions and the social world, along with important critical thinking and communication skills.

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; Lowell Heiny Hall 413, 970.248.1696.

FACULTY

ADELE CUMMINGS (1996), Professor of Sociology; BA, MS, Florida State University; PhD, Duke University

BRENDA WILHELM (2000), Professor of Sociology; BA, University of Minnesota; MA, PhD, University of Arizona.

SPANISH

PROGRAMS OFFERED

Bachelor of Arts
- Spanish – Applied Professional Spanish
- Spanish – Literature and Language
- Spanish – Secondary Education

Minors
- Spanish

PROGRAM DESCRIPTION
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.

Spanish majors at Colorado 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.

Majors in the Spanish Literature and Language track gain theoretical and applied insights into Spanish language, linguistics and literature. Students examine specific genres (poetry, prose, theatre and film) as well as certain periods, regions and trends. Study of theoretical and applied linguistics contributes to a well-rounded education.

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; Escalante Hall 237, 970.248.1687.

FACULTY

THOMAS ACKER (1999), Professor of Spanish; BS, Kutztown University; MA, PhD, Temple University.

TYLER ANDERSON (2006), Associate Professor of Spanish; AA, Ricks College; BA, MA, Brigham Young University; PhD, Pennsylvania State University.

BLAKE CROSSLEY, Instructor of Spanish; BA, MA, Brigham Young University.

ALBINO GONZALES, Instructor of Spanish; BA, Adams State College; MA, Arizona State University; EdD, Arizona State University.

LUIS SILVA-VILLAR (2000), Professor of Spanish; MA, Real Conservatorio Superior De Musica de Madrid; MA, PhD, University of California - Los Angeles.

MAYELA VALLEJOS-RAMIREZ (2003), Professor of Spanish; BA, Universidad de Costa Rica; MA, West Virginia University; PhD, 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, 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 141, 970.248.1233.

FACULTY

PAULA CASEY, Instructor of Speech; BS, MA, Northern Arizona University.

RICK MORITZ, Instructor of Speech; BA, Metropolitan State College of Denver; MA, University of Colorado, Denver.

SANDRA WOODWORTH, Instructor of Speech; BA, MS, Fort Hays State University; PhD, 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; BS, Clemson University; MA, The Citadel; JD, University of South Carolina; EdD, United States Sports Academy.

JILL CORDOVA (1992), Professor of Kinesiology and Department Head of Kinesiology; BA, MA, Humboldt State University; PhD, University of New Mexico.

STEVEN ROSS MURRAY (1998), Professor of Kinesiology; BS, University of North Alabama; MS, DA, Middle Tennessee State University.

ELIZABETH SHARP (2011), Assistant Professor of Kinesiology; BS, MEd, Arkansas Tech University; PhD, 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.

SUSTAINABLE AGRICULTURE

PROGRAMS OFFERED
Associate of Applied Science

PROGRAM DESCRIPTION
Sustainable agriculture is a holistic approach, which is integrated throughout each course, addressing how to enhance environmental quality of food production while also taking into account the economic viability of farm and ranch operations. Sustainable agriculture is the practice of farming using principles of ecology, the study of relationships between organisms and their environment. It has been defined as "an integrated system of plant and animal production practices having a site-specific application that will last over the long term.

In this Associate of Applied Science degree, the student will have a detailed understanding about the food, fiber, and natural resource systems of western region agriculture; learn through leadership and service to serve all people and groups equally and without discrimination within the workplace,

amplify and expand the "whole person" concept of education, including leadership, personal, and interpersonal skills. Students will develop an understanding of marketing and economics that continually and systematically responds to the marketplace; be exposed to the concepts that foster the spirit of free enterprise and develop creative entrepreneurship and innovation. Through an integrated approach, students will learn the concepts of Sustainable Agriculture through classroom and laboratory instruction, supervised experiences, and student organizations.

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

FACULTY

BENJAMIN KEEFER (1991) Assistant Technical Professor; BS, MEd, PhD, Colorado State University.

JOHN SLUDER (1998), Assistant Technical Professor

TEACHER EDUCATION

SEE EDUCATION

TECHNOLOGY INTEGRATION

PROGRAMS OFFERED

Technical Certificate
- Technology Integration – Network Technician
- Technology Integration – Telecommunication 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, basic electronics, information technology (IT) hardware and software and Cisco Systems Network training. The technology integration coursework is aligned with national and international certifications including Cisco, Cisco Certified Entry Networking Technician (CCENT) & Cisco Certified Network Associate (CCNA), A+/N+, security 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 and information 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, IT essentials, cabling, Linux and UNIX. The curriculum covers a broad range of topics from basics on how to build a network 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, CCENT & CCNA, A+/N+, 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

JOHN SLUDER (1998), Assistant Technical Professor of Technology Integration.

JACK YON (2003), Assistant Technical Professor of Technology Integration; AAS, Mesa State College.

THEATRE

PROGRAMS OFFERED

Bachelor of Arts
- Theatre Arts – Acting/Directing
- Theatre Arts – Dance
- Theatre Arts – Design/Technology
- Theatre Arts – 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 and dance 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 skills and beginning directing skills including voice, movement, period styles and Shakespeare. 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 experience.

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.

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/technology 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 computer-aided design. Costume skills courses include costume construction and fitting, fabric painting and fabric dyeing.

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, the ministry 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 and Musical Theatre majors are also required to take SPCH 112 (Voice and Diction) as their General Education Applied Studies requirement.

Musical Theatre 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.

CONTACT INFORMATION
Department of Theatre and Speech, Moss Performing Arts Center 141, 970-.248.1233.

FACULTY

DAVID COX (1981), Professor of Theatre; BA, Mesa State College; MFA, University of Utah.

JEREMY FRANKLIN, Instructor of Music Theatre; BA, Ouachita Baptist University.

MEGAN GLYNN (2014), Assistant Professor of Theatre, BA Dance, Chapman University, MFA, University of California, Irvine.

JEANINE HOWE (2006), Associate Professor of Theatre; BFA, Otterbein College; MFA, Carnegie-Mellon University.

MAURICE LAMEE (2012), Assistant Professor of Theatre; BA Loretto Heights College; MFA National Theatre Conservatory.

TIMOTHY PINNOW (2010), Professor of Theatre and Department Head of Theatre; BA, Luther College; MFA, University of Florida.

JILL VANBRUSSEL (2014), Assistant Professor of Theatre, BS, Biopsychology, University of California-Santa Barbara, MA Theatre, Bowling Green State University, MFA, Theatre, Purdue University.

HEATHER WAGGONER (1998), Professor of Theatre; AA, BA, Indiana State University; MFA, Illinois State University.

SHAY LYDICK, Instructor of Theater, BA Theatre, New Mexico State University, MFA, University of North Carolina-Greensboro.

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; climate control, manual and automatic drive trains; 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.

The program is a (NATEF) National Automotive Technicians Education Foundation Master certified training program, and prepares students to take their (ASE) Automotive Service Excellence tests offered by ASE.

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 Chrysler and after market suppliers.

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; AAS, Mesa State College.

GARY LOOFT (1985), Technical Instructor of Transportation Services.

KEITH WRIGHT (2006), Assistant Technical Professor of Transportation Services; AAS, Oklahoma State University, Institute of Technology.

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

DANIEL MCCLINTOCK (2007), Technical Instructor of Media technology; BA, Mesa State College.

JOHN SLUDER (1998), Assistant Technical Professor of Technology Integration.

MELANIE SNYDER (2003), Technical Instructor of Visual Communications; AAS, Mesa State College, BA, Rasmussen 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.

WILDLAND FIRE MANAGEMENT

PROGRAMS OFFERED
Associates of Applied Science
Wildland Fire Management

PROGRAM DESCRIPTION
The Associate of Applied Science (AAS) in Wildland Fire Management program covers the fundamentals of basic wildland firefighting and management, fire operations in the wildland/urban interface, and wildland fire cause and origin. The program prepares students for entry level positions in the wildland firefighting profession, and is designed to provide students who are interested in careers in emergency and natural resource management with the knowledge, communication, and critical thinking skills necessary for success in the field. Subjects covered are varied and include meterology, aviation, physics of combustion, ignition methods and devices, and organizational management related to wildland fire emergency services.

Students successfully completing the program are eligible for industry certification. The wildland fire courses presented meet National Wildfire Coordination Group (NWCG) standards and are accepted by Federal, state, and local agencies with wildland fire management jurisdictions. Students with this AAS in Wildland Fire Management combined with industry certification will be highly competitive for employment and future promotional opportunities in the field.

SPECIAL REQUIREMENTS
Wildland Fire operations are rigorous in nature and some of the field training is arduous in order to simulate actual fire scene environments. Students are responsible for providing their own boots and gloves that meet NWCG requirements for personal protective equipment.

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
W. TIMOTHY FOLEY (2013), Program Director and Instructor; BS, Colorado State University; MBA, University of Colorado.

JANE QUIMBY (2012), firector of department of Public Safety; BS, University of Utah; JD, University of Denver.

WOMEN'S AND GENDER STUDIES

PROGRAMS OFFERED
Minor
Women's Studies

PROGRAM DESCRIPTION
The Women's and Gender Studies Minor recognizes the centrality of gender to a variety of disciplines, professions and personal experiences and world views. Students will take coursework in disciplines such as Criminal Justice, History, Literature, Psychology, and Sociology with an aim toward developing an interdisciplinary understanding of issues related to women and gender in both contemporary and historical contexts.

By augmenting students' chosen majors, the Women's and Gender Studies minor prepares students looking for strong interdisciplinary perspectives along their path to careers and/or further studies in social work, counseling, law, education, business, and the arts, among others.

CONTACT INFORMATION
Department of Social and Behavioral Sciences, Lowell Heiny Hall 413, 970.248.1696.

FACULTY
BRENDA WILHELM (2000), Professor of Sociology; BA, University of Minnesota; MA, PhD, University of Arizona.

ERIKA JACKSON (2010), Assistant Professor of History; BA, Michigan State University; MA, Loyola University; PhD, Michigan State University.

JENNIFER HANCOCK (2010), Assistant Professor of English; BA, Oklahoma State University; MFA, Sarah Lawrence College; PhD; Oklahoma State University.

Center for Teacher Education (Licensure)

Contact: Center for Teacher Education, Colorado Mesa University, Dominguez Hall, 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 MA 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 374: Exceptional and ELL	3	
EDUC 378: Technology for K-12 Educators	1	
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 471: Educational Assessment	1	
EDUC 475: Classroom Management	1	
EDUC 499C: Teaching Internship and Colloquia	12	600
Total Hours Required	**38**	**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 342.

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.

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 Art, Music, Kinesiology	**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

University-wide Academic Offerings

Academic Honors Programs

Contact Information
Appropriate Academic Department Head for the major

Program Description
As member of the National Collegiate Honors Council, Colorado Mesa University's Honors Programs offer highly-motivated undergraduates enriched studies in their academic major. Based within each academic department, completion of honors requirements varies by academic program, but each includes opportunities for students to actively engage in more advanced study through coursework and a capstone project that can include research or creative work presented in a scholarly venue. Students completing a program's academic honors requirements are recognized at CMU's Commencement Ceremony.

At a minimum, students seeking participation in an Academic Honors Program must have earned at least 45 semester credit hours with a minimum 3.5 grade point average (GPA) at the time of application; academic programs may have additional admissions criteria. An application process occurs each spring semester, and interested students should contact the Academic Department Head for the application deadline. In addition to the credit hour and GPA qualifications, an applicant also should submit:

1. the application form; and
2. a summary of no more than one, single-spaced page that
   a. details the applicant's scholarly background, community and/or University service, and academic awards; and
   b. describes briefly why s/he is applying for an academic honors program of study.

Admission to the Academic Honors Programs is competitive. Applications will be reviewed by faculty members in the appropriate program/department, and students will be notified on their acceptance status within the timeframe indicated in the program-specific information.

Freshman Year Initiative (FYI) Program

Contact Information
Admissions Office, Welcome Center
970.248.1817 -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 (FYI), 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 FYI 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.

Maverick Provisional Program (MVP)

Contact Information
Admissions Office, Welcome Center
970.248.1817 or
Office of Student Success, Albers Hall
970.248.1340

Program Description
Colorado Mesa University offers first-year Provisional Baccalaureate (PB) freshman an opportunity to participate in a program designed specifically to assist students in making a successful transition to college by learning strategies and skills they will need to successfully navigate their first semester. This program, Maverick Provisional Program (MVP), is offered to new PB freshmen prior to the start of each fall semester. For more information, visit coloradomesa.edu/mvp.

The MVP program includes completion of the SUPP 100 (Higher Education Success Skills) course. This is a one-credit course designed to help PB students successfully transition to college life by introducing them to campus resources and teaching them study skills that will aid them in their transition. SUPP 100 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 Programs (ISEP)

Contact Information
Director of International Education
Tim Hatten
Professor of Business
Dominguez Hall 309J
970.248.1731

Associate Director of International Programs and Services:
Annie Gingerich
Admissions Office
970.248.1802

Program Description
International Student Exchange Programs are 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 Developmental Instruction,
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 and English. Preparatory courses are below the 100 level and include MATC 090 and 091, and ENGC 090. In addition, studios (ENGC 092 or READ 092) are available depending on placement level for extra support in ENGL 111 or ENGC 090. These courses are designed for students needing to strengthen their skills before entering college-level classes or to provide extra support while taking entry 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 Studies Advisory Committee. 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 accalaureate degree from an accredited institution. The undergraduate GPA requirement may differ based on individual rogram 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 academic 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. 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.

Financial Aid
Students should consult the Financial Aid Office for eligibility requirements of undergraduate & graduate certificates.

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 nine 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 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.

Students may not apply coursework with a grade lower than a "B" toward graduation requirements.

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 six 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/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 of the functional areas of business; 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
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:

ACCT 505	Advanced Fraud and Forensic Accounting
BUGB 510	Global Business
BUGB 520	Seminar in Current Business Topics*
CISB 500	Management of Information Systems
CISB 505	Advanced Project Management
CISB 560	Electronic Commerce Systems
ECON 505	Advanced Econometrics
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 -or- CISB 241	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), English for Speakers of Other Languages (ESOL), Teacher Leader (EDTL), Exceptional Learner (EDSE) and Initial Teaching Licensure (ITL) (Elementary; Secondary).

The Master of Arts in Education is designed as a dynamic program to meet the needs of people already holding a degree to earn teacher licensure or current teachers to gain expertise in additional state endorsement areas. The degree is awarded after successful completion of 30-36 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 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.

Graduate Certificates-Education
Each cognate group can also be completed as a graduate certificate for candidates not wishing to complete a full master's degree program. The same graduate admissions process applies to graduate certificates.

Master's 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

EDTL Cognate Courses:

EDTL 510	Teacher Leadership I
EDTL 511	Teacher Leadership II
EDTL 512	Facilitation and Presentation
EDTL 513	Information Based Educational Practices
EDTL 517	Assessment Literacy
EDTL 518	Diversity and Differentiated Instruction
EDTL 525	Internship I
EDTL 526	Internship II
EDLD 504	Best Practices in Curriculum, Assessment, Instruction
EDLD 515	Dynamic School Leadership in a Democratic Society: Introduction to School Administration
EDLD 540	School Improvement and Accountability
EDLD 542	Instructional Supervision and Management/HR

EDLD 544	Strategies in School Improvement

EDSE Cognate Courses:

EDSE 500	Foundations of Special Education
EDSE 501	Instructional Strategies in Special Education
EDSE 502	Behavioral Interventions for the Special Needs
EDSE 503	Methods of Teaching Students with Mild Disabilities Reading and Math
EDSE 506	Educating Students with Low Incidence Disabilities in Inclusive Environments
EDSE 510	The Twice Exceptional Learner Including Gifted and Talented
EDSE 515	Internship K-6 Elementary Practicum in Special Education
EDSE 520	Internship 6-12 Secondary Practicum in Special Education

Initial Teacher Licensure

Students already holding a Bachelor's degree may pursue initial teacher licensure at CMU through multiple pathways. Options available for elementary, Secondary (Biology, History, English, Mathematics, Geology, Spanish), or K-12 Art, Music, and Kinesiology licensure to teach in K-12 public schools.

To pursue coursework and preparation that leads solely to professional licensure to teach, the Center for Teacher Education offers an intensive post-baccalaureate preparation program that is completed in 12 months. The same coursework is also available in a 3 semester sequence at a somewhat slower pace. Either of these options lead to a recommendation for licensure with successful program completion.

The same initial teacher preparation coursework is incorporated in our MA, Education degree, allowing a student to complete teacher licensure and a master's degree in five semesters. The coursework begins with all the post-baccalaureate initial teacher licensure content and internship experiences. The Master's in Arts in Education core content follows in the second year; these courses are shown in the Graduate Education programs section.

Please contact the Center for Teacher Education at 970.248.1786 for more information or see the program website at: coloradomesa.edu/teachered/pbl.htm

ITL Courses:

EDUC 591	Foundations of Curriculum Instruction & Assessment
EDUC 586A	Accommodating Diverse & Exceptional Needs, K-6
EDUC 485	Modes of Inquiry
EDUC 487	Literacy Education, K-6
EDUC 488	Math Education, K-6
EDUC 492A	Directed Teaching, Elementary
EDUC 599A	Directed Teaching, Elementary

Secondary ITL:

EDUC 591	Foundations of Curriculum Instruction & Assessment
EDUC 586B	Accommodating Diverse & Exceptional Needs, 7-12
EDUC 442	Integrated Literacy
EDUC 497	Content Methodology Practicum
EDUC 497 a-d	Secondary Methods
EDUC 492B	Directed Teaching, Secondary
EDUC 599B	Directed Teaching, Secondary

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 master's degree program. Courses for transfer must be approved by the CTE Graduate Committee to meet program requirements.

Graduate Certificate in Health Information Technology Systems

The Graduate Certificate in Health Information Technology Systems prepares health care professionals to support the collection, management, retrieval, exchange, and/or analysis of information in electronic form, in health care and public health organizations. This role functions to provide comprehensive management of health care information and its secure exchange between health care consumers and providers. Completion of the Graduate Certificate requires 15 semester credit hours of study. The certified specialist works within the health care environment interacting with both health care professionals and Information Technology experts. The following subject areas are offered in the certificate program: Introduction to Healthcare Informatics; Database Management Systems; Information Systems Security and Privacy; Information Systems Life Cycle; Semantic Representation. Training and coursework towards the certificate maintains a broad perspective of health care informatics while providing an in-depth knowledge of nursing informatics. The same graduate admission process applies to the Graduate Certificate Program.

Program of Study:

CISB 500	Management of Information Systems (3)
CISB 505	Advanced Project Management (3)
HSCI 501	Advanced Health Informatics I: Data Analysis (1)
HSCI 506	Advanced Health Informatics II: Project Design and Implementation (2)
NURS 502	Health Information Systems (3)
NURS 505	Quality Assessment and Improvement in Health Care Settings (3)

Master of Science in Nursing

The Master of Science in Nursing (MSN) program is designed for students already possessing a baccalaureate degree in nursing and adds the first graduate step on the nursing career ladder. The MSN degree provides graduates with a foundation for practice as a leader and educator in health care systems or academic settings. The MSN program is a hybrid format, providing flexibility for students to remain in their current work positions using online course delivery methods; this format provides opportunities for personal interaction with faculty and peers in focused intensive sessions at selected points during each semester. MSN graduates will be prepared to

advance to higher levels of nursing education including the Doctor of Nursing Practice (DNP) or doctoral programs at other institutions. Admission to the University does not guarantee admission to the program; a separate admission application to the program is required. The MSN program at Colorado Mesa University is administered by the Department of Health Sciences. The department is guided on academic policy matters by the Office of Graduate Studies.

The MSN program contains 18 credit hours of core knowledge essential for practice as a leader including coursework in nursing theory and research, health information systems, organization leadership, health policy and quality improvement and three credit hours for a final capstone or thesis project. There are two 15-credit hour cognates to choose from, Advanced Nursing Practice Cognate or Nursing Education Cognate. Graduates of master's degree programs in nursing are prepared with additional knowledge and clinical expertise building on baccalaureate nursing practice. The MSN program at Colorado Mesa University is based on the "Essentials of Masters Education for Advanced Nursing Practice" identified by the American Association of Colleges of Nursing. The ten AACN Essentials include scientific background for practice, organizational and systems leadership, quality improvement and safety, translational scholarship for evidence-based practice, information and healthcare technology for transformation of microsystems, healthcare policy for advocacy in health care, inter-professional collaboration for improving patient and population health outcomes, clinical prevention and population health for improving health, advancing professionalism and professional values, and master's level nursing practice.

Admission to the MSN Program
See Department specific requirements.

Candidates not meeting all of the above requirements may be admitted under conditional status.

Program of Study

Required Core Courses:

NURS 500	Theoretical Foundations
NURS 501	Nursing Research Methods
NURS 502	Health Information Systems
NURS 503	Organizational Leadership
NURS 504	Health Policy
NURS 505	Quality Improvement

Advanced Nursing Practice Cognate:

NURS 525	Pathophysiologic Concepts
NURS 526	Pharmacology for ANP
NURS 527	Health Assessment for ANP
NURS 530	Chronic Illness Management
NURS 535	Health Promotion and Disease Prevention

Nursing Education Cognate:

NURS 525	Pathophysiologic Concepts
NURS 526	Pharmacology for ANP
NURS 527	Health Assessment for ANP
NURS 540	Teaching Strategies for Nurse Educator
NURS 545	Curriculum Design and Evaluation

Capstone

NURS 575	Capstone Practice Project
OR	
NURS 580	Thesis

Other Requirements:
Completion of Oral Comprehensive Exam: Comprehensive Exams will be scheduled during the exam week that the students' scholarly project is scheduled.

Students are required to meet with their advisor and submit information by the appropriate deadlines.

All graduate courses for the MSN are listed in the Course Descriptions areas of Nursing (NURS).

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.

Doctor of Nursing Practice

The Doctor of Nursing Practice (DNP) degree is designed for those nurses who are interested in assuming an advance practice nursing role as a Family Nurse Practitioner (FNP). DNP graduates are prepared as clinical experts in the delivery of primary care, with a focus on critical thinking, leadership, and political policy skills needed to advocate and create changes in healthcare practice at all levels. The program is a hybrid format, providing flexibility for students to remain in their current work positions using online course delivery methods. Opportunities for personal interaction are included with faculty and peers in focused intensive sessions at selected points during each semester. Clinical coursework and immersion experiences will be arranged in primary care settings. Students will likely complete most clinical requirements in their home community, but may need to travel for specialized clinical experiences including rural health care settings. Admission to the University does not guarantee admission to the program; a separate admission application to the program is required.The DNP program at Colorado Mesa University is administered by the Department of Health Sciences. The department is guided on academic policy matters by the Office of Graduate Studies.

The DNP program includes 27 credit hours of core knowledge essential for practice as a leader including coursework in nursing theory and research, health information systems, organization leadership, health policy, quality improvement, statistics, and evidence-based practice; 38 credit hours of advance practice nursing cognate courses that develop family nurse practitioner's knowledge and skills so they are prepared to care for individuals across the lifespan. Content includes key health issues facing our nation related to chronic illness management, health promotion and disease prevention strategies; three credit hours of elective coursework; and six credit hours for a final DNP scholarly capstone project. The program includes over 1000 hours of immersion in clinical practice to build and assimilate

knowledge for advanced practice at a high level of complexity. These experiences also provide the context within which the final DNP scholarly project is completed.

The DNP curriculum at Colorado Mesa University is based on the "Essentials of Doctoral Education for Advanced Nursing Practice" identified by the American Association of Colleges of Nursing, the National Organization of Nurse Practitioner Faculty's Independent Practice Competencies and Primary Care Competencies for FNP. The ten AACN Essentials include scientific underpinnings for practice, organizational and systems leadership for quality improvement and safety, clinical scholarship and analytical methods for evidence-based practice, information systems/technology and patient care technology for the improvement and transformation of health care, healthcare policy for advocacy in health care, inter-professional collaboration for improving patient and population health outcomes, clinical prevention and population health for improving health, advance nursing practice, and specialty-focused competencies to prepare graduates for national specialty certification as an advance practice nurse. Graduates prepared for an advance practice role as a Family Nurse Practitioner will demonstrate practice expertise, specialized knowledge, and expanded responsibility and accountability in the care and management of individuals and families.

The DNP program includes three credit hours of elective coursework giving students an opportunity to focus learning in an area of interest depending on their clinical practice setting. Some graduates may choose to focus on building leadership and practice management skills; others may choose elective coursework that prepares them for roles in public health, nursing education or community-based practice settings.

The DNP degree is built upon the generalist foundation acquired through a baccalaureate or advanced generalist master's in nursing. The curriculum will be individualized for students based on their prior education and experience. A candidate with a baccalaureate degree would take all courses in the program; someone who already possesses a master's degree would take coursework to achieve competencies not previously attained. Both MSN and DNP students will take similar core content courses in the beginning and diverge onto different educational tracks over time. Some students may choose to complete a MSN in their progress to the DNP; others will focus entirely on the DNP curricula. The DNP is the final step on the nursing career ladder at Colorado Mesa University.

Admission to the DNP Program
See Department specific requirements.

Candidates not meeting all of the above requirements may be admitted under conditional status.

Program of Study

Required Core Courses:

NURS 500	Theoretical Foundations
NURS 501	Nursing Research Methods
NURS 502	Health Information Systems
NURS 503	Organizational Leadership
NURS 504	Health Policy
NURS 505	Quality Improvement
NURS 625	Statistics for Health Sciences
NURS 626	Epidemiology
NURS 700	Evidence-based Practice

Advanced Nursing Practice Cognate:

NURS 525	Pathophysiologic Concepts
NURS 526	Pharmacology for ANP
NURS 527	Health Assessment for ANP
NURS 530	Chronic Illness Management
NURS 535	Health Promotion and Disease Prevention
NURS 600	Family Nurse Practitioner Issues
NURS 601	Primary Care of the Child/Adolescent
NURS 602	Primary Care of the Adult
NURS 603	Primary Care of the Elderly
NURS 610	Clinical Practicum – Child & Adolescent
NURS 620	Clinical Practicum – Adult
NURS 630	Clinical Practicum – Elderly
NURS 640	Clinical Practicum – Rural Health Care
NURS 650	Family Nurse Practitioner Preceptorship
NURS 660	Transition into Advance Nursing Practice

Capstone/Thesis

NURS 750	Capstone: Application of EBP I
NURS 760	Capstone: Application of EBP II

Other Requirements:
Completion of Written/Oral

Comprehensive Exam:
Comprehensive Exams will be scheduled during the exam week that the students' scholarly project is scheduled.

Students are required to meet with their advisor and submit information by the appropriate deadlines.

All graduate courses for the DNP are listed in the Course Descriptions areas of Nursing (NURS).

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.

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 360 Professional Preparation I (1)
Professional preparation of resumés and job interviewing skills through mock interviews performed by community professionals using the media studio to videotape and critique the interviewee and review of the resumé as it applies to the accounting industry. Prerequisites: ACCT 301, ACCT 202, and ACCT 321.

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 and non-profit units. Prerequisite: ACCT 322.

ACCT 402 Advanced Accounting (3)
Consolidated financial statements, partnership accounting, bankruptcy, and

international operations. Prerequisite: ACCT 322.

ACCT 411 Auditing I (3)
Scope and purposes of the attestation work of a certified public accountant focusing on generally accepted auditing standards (GAAS). Includes theory of auditing, professional ethics, legal liability of the auditor, and internal control. Prerequisites: ACCT 322, and STAT 200 or CISB 241, and senior standing.

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)
Federal Income Tax Law in-depth as it relates to individual taxpayers. Introduction to various tax reference resources. 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 methods and related projects. Required participation in the Tax Assistance Program to acquire practical experience in communication with taxpayers and preparation of tax returns. Prerequisite: ACCT 441.

ACCT 460 Professional Preparation II (1)
This course is a concentrated review of accounting subjects in preparation for the CPA exam using self-study techniques and professor-led discussions and review. Prerequisites: ACCT 201, ACCT 202, ACCT 321, ACCT 322, ACCT 360, ACCT 401, and ACCT 441.

ACCT 470 Fraud and Forensic Accounting (3)
Exploration of investigative techniques, interviewing techniques, and reporting processes at different levels of judicial and prosecutorial environments. Specific skills in detecting and investigating fraud developed and various reporting methodologies explored. Includes presentations and speakers from fraud investigative environments. Prerequisite: ACCT 201.

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, case studies, and classroom discussion. Topics covered include basic cost accounting concepts and terminology, product costing and pricing, planning and controlling a business operation through budgets and variance analysis, and managerial decision-making using such techniques as cost-volume-profit analysis and variable costing.

ACCT 505 Advanced Fraud and Forensic Accounting (3)
Exploration of investigative techniques, interviewing techniques, and reporting processes at different levels of judicial and prosecutorial environments. Specific skills in detecting and investigating fraud developed and various reporting methodologies explored. Includes presentations and speakers from fraud investigative environments. Demonstration of mastery of material through graduate level projects, writing, and presentations. Prerequisites: ACCT 201, ACCT 322, and permission of instructor.

ADDICTIONS COUNSELING (ADAP)

ADAP 301 Foundations of Addictions Counseling (3)
Provides a foundation for the theoretical, practical, and applied addictions counseling skills necessary for individuals wanting to work in the addictions field. Prerequisite: PSYC 233.

ADAP 350 Cultural and Ethical Issues in Addictions Treatment (3)
Provides an overview of ethical, cultural, and legal considerations associated with the field of addictions. Prerequisite: ADAP 301.

ADAP 380 Pharmacology and Addictions (3)
Provides an overview of pharmacology and infectious diseases associated with the field of addictions. Prerequisite: ADAP 301.

ADAP 401 Special Populations and Addictions (3)
Outlines the unique treatment needs of special addiction populations and the promising new practices within the addictions field. Prerequisite: ADAP 301.

ADAP 420 Addiction Counseling Approaches (3)
Outlines the different evidence-based treatment approaches in the addictions field. Prerequisites: ADAP 301 and ADAP 350.

ADAP 499 Internship (3)
Professional practice with individuals, groups, and communities in various sites under professional supervision. Prerequisites: ADAP 301, ADAP 350, and ADAP 420.

AGRICULTURAL SCIENCE (AGRS)

AGRS 100 Practical Crop Production (3)
Production and adaptation of cultivated crops. Emphasis on crops grown in the western region of the United States. Growth, development, production and use covered.

AGRS 100L Practical Crop Production Laboratory (1)
Laboratory experiences supporting instruction in the production and adaptation of cultivated crops. Emphasis on crops grown in the western region of the United States. Growth, development, production and use covered. Corequisite: AGRS 100.

AGRS 102 Agriculture Economics (3)
Focus on economic principles applied to agriculture through price discovery

✓ 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 53.

with producer supply and consumer demand, governmental politices, rural development, and resource management.

AGRS 103 Introduction to Entomology (2)
AGRS 103L Introduction to Entomology Laboratory (1)
Covers insect identification and classification, introduces integrated pest management concepts, and an in-depth study of selected insects of agricultural economic importance.

AGRS 105 Animal Science (3)
Fundamentals of livestock production. Principles of breeding, genetics, nutrition, health, and physiology of beef, sheep, swine, dairy, and horses. Focus on the animal science industry in general and each species industry in regard to history, current situation, and future.

AGRS 110 Integrated Pest Management (3)
Identification and control of economically important weeds, insects and diseases through systems approach management concepts including cultivation, chemical and biological control mechanisms.

AGRS 118 Farm Structures and Green Houses (3)
Safety, hand and power tool use, farm building planning and site location, concrete, farm building design and construction and materials of construction. Greenhouse design, systems, management, and major greenhouse crops and their cultural needs.

AGRS 125 Agricultural Machinery (3)
Emphasizes the safe operation, construction, purpose, maintenance and adjustment of farm machinery.

AGRS 205 Farm and Ranch Management (3)
Provide students with practical experience in applying principles of economics, business, marketing and finance to the management of a farm/ranch operation.

AGRS 208 Agricultural Finance (3)
Emphasizes principles of finance and their application to agriculture and agribusiness, including the time value of money, net present value analysis, interest, credit lending institutions, financial statements and financial ratios.

AGRS 210 Agricultural Marketing (3)
Applied study of the agricultural marketing system. Methods of marketing crops and livestock. Emphasis on hedging with futures and options.

AGRS 224 Integrated Ranch Management (3)
Management pertaining to the economics of a ranching enterprise. Includes principles of system management, resource inventory and management, ranch decision making, nutrition, selection, record keeping, financial management, and marketing.

AGRS 225 Feeds and Feeding (4)
Basic nutrients, common feeds and feed additives, anatomy of digestive systems, and basic feeding practices for beef, sheep, and dairy. Lab devoted to calculating and balancing rations to fulfill nutrient requirement of farm animals for growth, finishing, reproduction, lactation, work, and wool production. Explores least cost ratio balancing.

AGRS 230 Farm Animal Anatomy and Physiology (3)
Introduction to basic concepts of farm animal anatomy and physiology. Emphasizes nutrition, reproduction, immunology, and growth of the basic farm species. Anatomy and physiology is taught in the context of applying basic principles to production practices in the industry including reproductive management, livestock nutrition management, and animal health practices. Prerequisite: AGRS 105.

AGRS 240 Introduction to Soil Science (3)
AGRS 240L Introduction to Soil Science Laboratory (1)
Formation, physical properties, chemical properties and management of soils emphasizing conditions affecting plant growth in the lab environment.

AGRS 250 Live Animal and Carcass Evaluation (1)
AGRS 250L Live Animal and Carcass Evaluation Laboratory (2)
Explores meat carcass evaluation and the related yield and quality grading system. Emphasizes selection of breeding stock based on performance data. Covers comparative selection, grading, and judging of market and breeding classes of livestock based on knowledge of phenotype, performance, information, and/or carcass merit. Prerequisite: AGRS 105.

AGRS 260 Plant Propagation (3)
Theory, biology, and practical applications of plant propagation technologies. Propagation by seed, cuttings, budding, grafting, layering and tissue culture. Propagation environment, techniques of stock plant management and seed handling.

AGRS 288 Livestock Practicum (1)
AGRS 288L Livestock Practicum Laboratory (1)
Provides experiential learning with beef cattle, dairy cattle, swine and sheep.

AGRS 293 Cooperative Experience(5)
Employment in an agricultural production setting. Work experience in all facets of the operation. Guidance and supervision is the responsibility of the supervising employer and Coordinator of Production Agriculture. Emphasis on records, managerial decisions, and production agriculture skills.

AGRS 296 Topics (1-3)

ANTHROPOLOGY (ANTH)

✓ **ANTH 202 Introduction to Anthropology-GTSS3 (3)**
Human nature and behavior from the broad perspective of contemporary anthropology. Four primary subfields of anthropology, biology, cultural, linguistics, and archaeology discussed to integrate various aspects of the human condition.

ANTH 296 Topics (1-3)

ANTH 395 Independent Study (1-3)

ANTH 396 Topics (1-3)

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 396 Topics (1-3)

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.

ARKE 496 Topics (1-3)

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 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 294 Sophomore Seminar (3)
Development of intended personal direction for creative activity and scholarly work in upper division studio and art history courses. Honing creative critical thinking skills through formal analysis of artwork; art critiques; basic art theory and contemporary art concepts; developing the annual juried student art exhibition; fundamentals of matting, framing, basing, and portfolio development; woodshop safety; exposure to local and regional art scene; and exploring career options in art. Prerequisite: ARTH 220.

✓ 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 53.

ARTE 296 Topics (1-3)

ARTE 395 Independent Study (1-3)

ARTE 396 Topics (1-3)

ARTE 396A Topics (1-3)

ARTE 396S Topics (1-3)

ARTE 494 Senior Seminar and Portfolio (3)
Examination of the current state of the studio arts and various career options through research, discussion, and practical application in the coordination of a required studio art exhibition. Includes development and presentation of a professional portfolio package including artist statement, resume, and web presence. Must enroll in the course during the spring semester in which the senior exhibition is presented. Each student must be working directly with a full time faculty member in their discipline to select work for their senior exhibition. Prerequisite: ARTE 294 with grade of "B" or higher.

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. The student is expected to complete 135 clock hours. Prerequisite: permission of instructor.

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 224 Introduction to Motion Graphics (3)
Exploration of motion graphics as time-based graphic design. Includes history of motion graphics, application of motion graphics as visual communication in animation, film, typography, illustration, and the environment. Current trends in design media and technologies. Prerequisites: ARTG 215 and ARTG 221.

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 and ARTG 221.

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 215 and ARTG 221.

ARTG 321 Advanced Typography (3)
Explore traditional and contemporary forms of typography and compositions through letterpress and hand rendering approaches. Prerequisite: ARTG 320.

ARTG 324 Animation I Two-Dimensional Animation (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 224 and ARTG 225.

ARTG 325 Animation II Three-Dimensional Animation (3)
Exploration of 3D computer animation software, techniques and production processes. Emphasis on modeling and the use of virtual camera and lighting. Focus will also include the design and creation of individual environments and the development of motion and timing to produce animated sequences. Prerequisites: ARTG 224 and ARTG 225.

ARTG 326 Motion Graphics (3)
Advanced motion graphics techniques. Manipulation of related audio, graphics, animation, typography and visual effects. Focus on movement, cutting, shot selection, timing, rhythm, matching action, story arc, typography, choreography, light, and color. Historical progression of editing techiques. Production includes output

to various web, mobile or digital devices. Prerequisite: ARTG 224.

ARTG 337 Illustration and Storyboard (3)
Traditional drawing skills used in illustration, character design, and storyboards as applied to visual storytelling. Emphasis placed on developing concepts, composition, and rendering skills as related to sequential images. Prerequisites: ARTS 152, ARTG 215, and ARTG 221.

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 301 and ARTG 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 301 and ARTG 320.

ARTG 406 Advanced Web Site Design (3)
Investigation, analysis and application of emerging Web Site design trends. Prerequisite: ARTG 405.

ARTG 424 Animation Studio I Motion Graphics (3)
Exploration of advanced motion graphics to the creation and production of animation and video. Course will focus on effects applied to and the integration of typography, graphic images, and audio to be applied to final rendering of individual time-based projects. Prerequisites: ARTG 324, ARTG 325, and ARTG 326.

ARTG 425 Animation Studio II Advanced Animation (3)
Exploration of advanced animation and motion graphics. Includes complex character development and modeling, rendering techniques, distribution, copyright and publishing issues, post-production, and animation portfolio development. Prerequisite: ARTG 424.

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 or instructor permission.

ARTG 450 Identity Design (3)
Exploration of visual communication designed for public and private business and organization identity. Emphasis will be placed on the process of design and approaches to image generation for identity systems and standards. Prerequisites: ARTG 301 and ARTG 320.

ARTG 493 Portfolio Development (3)
Development of a portfolio package to be used as employment material. Emphasis placed on personal identity, resume development, and on an online and print-based portfolio presentation. Prerequisite: ARTG 405.

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 220 History of Modern Art (3)
A general survey class of Western and non-Western art from 1750 to the 21st Century. The emphasis of this survey is on the major movements and civilizations, methods of analysis, historical and cultural context. Prerequisites: ARTE 101, ARTE 102, ARTE 118, and ARTE 119.

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

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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 324 History of Graphic Design (3)
Exploration of the history of graphic design from the advent of writing through the digital revolution, focusing on development of design techniques and styles. Prerequisites: ARTE 118 and ARTE 119.

ARTH 325 Italian Renaissance Art History (3)
Explores origins, development, and end of Italian Renaissance. Late thirteenth to mid-sixteenth century. Emphasis on major works of sculpture, painting, architecture, and the artists responsible for their creation. Prerequisites: ARTE 118 and ARTE 119.

ARTH 326 Medieval Art: Early Christian to the Romanesque (3)
Explorations of Christian art through time and geographic regions. Emphasizes major works including sculpture, manuscripts, and architecture as well as the forces which shaped their creation and determined their meaning and significance. Prerequisites: ARTE 118 and ARTE 119.

ARTH 327 History of Western Architecture (3)
Explores beginnings of architecture in prehistory and traces development through time and geographic regions through the end of the Italian Renaissance. Emphasizes major works of architecture with discussions of form, function, and relation to other works of architecture. Prerequisties: ARTE 118 and ARTE 119.

ARTH 328 History of World Ceramics (3)
Comprehensive survey of historical ceramic production across the globe. Examination of the role ceramics has played in relation to art and culture of the world. Focus on typology and identification of ceramic objects from prehistory through the modern era. Prerequisites: ARTE 118 and ARTE 119.

ARTH 329 Maya Architecture & Ceramics (2)
Comprehensive survey of major Maya archaeological sites, Maya ceramics, and the social and political context of art within the Maya culture. Focus on symbolism of Maya religion in architecture and ceramics. Prerequisites: ARTE 118 and ARTE 119.

ARTH 330 Maya Architecture and Ceramics Field Study and Community Service Project (2)
On-site exploration of Maya archeological ruins in the Yucatan Peninsula of Mexico. Experiential learning of Maya art and archeology and the historic Maya culture through field study. Compilation of visual and personal accounts of site visits through documentation. Community service presentation of ceramic art and technique to Dual Immersion Academy students.

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 I (3)
Introduction to drawing with an emphasis on perceptual drawing. Perspective, light, shadow, form, volume, and mark-making strategies are explored, as well as an introduction to composition using a variety of media. Preparation for more advanced art classes.

ARTS 152 Foundation Drawing II (3)
Continuation of ARTS 151. Further development of drawing tecnniques, including objective and subjective drawing, using calligraphic line, gesture, and caged volume. Introduction to color in drawings. Introduction to contemporary drawing strategies. Prerequisite: ARTS 151.

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 Life Drawing (3)
Introduction to drawing the human figure. Issues of form, structure, volume, movement, composition, and expressive possibilities are explored and practiced. Prerequisites: ARTE 101 and ARTS 152.

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 274 Printmaking: Intaglio and Relief (3)
Introduces concepts and techniques of intaglio and relief printmaking processes. Includes non-acide and acid intaglio techniques such as drypoint, hard ground/line etch, soft ground, aquatint, multiple plate printing, a la poupee wiping, and chine-colle. Relief processes include linoleum cut and woodcut. 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 Beginning Acrylic Painting (3)
Introduction to the language of painting through studio practice. Fundamental skills of color mixing and practical applications of painting and how they relate to perceptual problem solving. Focus on light and color and how it translates into the pictorial space through use of acrylic paint. Prerequisites: ARTE 101 and ARTS 151.

ARTS 292 Beginning Oil Painting (3)
Introduction to the language of painting through studio practice. Fundamental skills of color mixing and practical applications of painting and how they relate to perceptual problem solving. Focus on light and color and how it translates into the pictorial space through use of oil of paint. Prerequisites: 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.

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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. Individual and group critiques ongoing. Prerequisite: ARTS 152.

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. Individual and group critiques ongoing. 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 152, or consent of instructor.

ARTS 362A Artists' Books (1)
Introduction to the art of making visual books, including book structure, binding techniques, and strategies for developing sequential imagery. Prerequisites: ARTE 101 and ARTS 152, or instructor permission.

ARTS 362B Artists' Books (1)
Continuation of the art of making visual books, including book structure, binding techniques, and strategies for developing sequential imagery. Prerequisites: ARTE 101 and ARTS 152, or instructor permission.

ARTS 362C Artists' Books (1)
Further exploration of the art of making visual books, including book structure, binding techniques, and strategies for developing sequential imagery. Prerequisites: ARTE 101 and ARTS 152, or instructor permission.

ARTS 364 Figure Painting I (3)
Exploration of proportion, perspective and volume through painting from a model. Investigation of various techniques and conceptual development encouraged through use of oil or acrylic. Individual and group critiques. Prerequisites: ARTS 251, and ARTS 291 or ARTS 292.

ARTS 365 Mixed Media Painting I (3)
Bridge between 2D and 3D mediums. Artistic exploration of experimental techniques and mediums including collage, graphite, ink, encaustic, acrylic, oil, found objects. Focus on manipulating varied materials to give textural vitality to painting. Investigation of conceptual and technical direction. Prerequisite: ARTS 291 or ARTS 292.

ARTS 370 Printmaking: Lithography (3)
Introduces concepts and techniques of fine art lithography, including traditional stone lithography, aluminum plate lithography, and positive plate photo lithography. Black and white, multiple color, hybrid or combination prints, and chine-colle. Prerequisite: ARTS 152.

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 274 and ARTS 370.

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 291 or 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.

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 and contemporary context fits individual's style. Prerequisite: ARTE 352.

ARTS 452 Drawing Workshop IV (3)
Subject matter, form, and content are determined by the student under the guidance of the instructor. Ability to speak and write articulately about created artwork 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 464 Figure Painting II (3)
Advanced level exploration of the human figure in relation to conceptually based narrative paintings. Variety of media is encouraged. Students will use the model to develop a consistent body of work towards their BFA show. Individual and group critiques ongoing as well as discussion about individual concepts and direction. Prerequisite: ARTS 364.

ARTS 465 Mixed Media Painting II (3)
Advanced level bridge between 2D and 3D mediums. Focus on manipulation of various materials to give textural vitality to a conceptually based body of work leading toward the BFA show. Individual and group critiques ongoing as well as discussion of individual concepts and direction. Prerequisite: ARTS 365.

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 473 Printmaking Workshop V (3)
Creation of a mature and cohesive series of prints that demonstrate a solution or solutions to a creative problem posed by the individual. Artwork will demonstrate technical mastery and conceptual sophistication; student will provide a mature written artist statement and high-quality photo documentation. Oral critique where the artist verbalizes the context of their artwork within the contemporary art world. Prerequisite: ARTS 472.

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.

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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 students 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.

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 Plant and Animal Biodiversity-GTSC1 (3)**
✓ **BIOL 102L Plant and Animal Biodiversity 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 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 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. Prerequisites: BIOL 209 and BIOL 209L.

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 217 Forensic Entomology (2)
BIOL 217L Forensic Entomology Laboratory (1)
Basic procedure and considerations in using insect evidence in crime scene investigations and the determination of post mortem interval using insects. Two-hour lecture and one two-hour lab per week.

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 Microbiology-GTSC1 (3)**
✓ **BIOL 250L Introduction to Microbiology Laboratory-GTSC1 (2)**
Major types of microorganisms with an emphasis on bacteria. Microbial taxonomy, structure, metabolism, genetics, and aspects of infectious disease and the immune host response. Three lecture hours 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.

✓ 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 53.

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.

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 322 Plant Identification (2)
BIOL 322L Plant Identification Laboratory (2)
Identification of the local flora. Basic plant anatomy and morphology. Includes evolutionary relationships of major plant groups as well as environmental, ecological, and historical constraints on plant distribution. Prerequisites: BIOL 107/107L.

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)
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)
Diversity of form and function across all vertebrates, including humans. Emphasizes fundamental physiological processes, integration among systems, and addresses physiological mechanisms adapted to environmental challenges. Three lectures and one two-hour laboratory per week. Prerequisite: BIOL 106 or BIOL 209.

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 385 Nature and Philosophy of Science (3)
Central concepts on the nature of scientific knowledge including philosophical tenets that distinguish science from technology as well as distinguish science from pseudoscience. May not be used in the Additional Biology Courses categories for the Biology Concentration.

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 410 Human Osteology (3)
BIOL 410L Human Osteology Laboratory (1)
Study of the human skeleton, including osteology and bone detail, biological variation, animal skeletal comparisons, pathology, forensics, and proper handling of human skeletal material. Laboratory emphasizes analysis and identification of human skeletal material. Three lectures and one two-hour laboratory per week. Prerequisites: BIOL 209 and BIOL 209L.

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.

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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 (3)
BIOL 450L Mycology Laboratory (2)
Fungi, with emphasis on comparative morphology and development, classification, physiology, genetics, and ecological relationships. Importance of fungi in industry, agriculture, and medicine. Three 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. May be repeated for up to 3 hours. Prerequisite: Junior or senior standing or consent of instructor. Must have taken the course to be supported or have sufficient experience in other related courses.

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, HMGT, MANG, MARK, OFAD, 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 the 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)

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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 405 Big Questions in Business (3)
Application of the requisite business skill of critical thinking as it pertains to major issues in business. Prerequisite: Senior standing.

BUGB 435 Emerging Markets (3)
Traditional challenges to global product development and marketing in the world's emerging economies. Commonalities of differing regions and economic systems. Cultural and economic differences. A macro look at emerging economies. Micro applications of new emerging world markets. Prerequisites: ACCT 201, ACCT 202, BUGB 105, BUGB 211, CISB 101 or CISB 205, CISB 241 or STAT 200, ECON 201, and ECON 202.

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 (1-6)

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 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 (1-6)
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. Prerequisite: Permission of instructor and permission of MBA Director.

BUGB 590 Thesis (6)
Prerequisite: BUGB 530 and permission of MBA Director.

BUGB 595 Research Practicum (3)
Application of classroom theory and research methods to on-the-job experiences. Prerequisites: BUGB 530 and permission of the MBA Director.

CHEMISTRY (CHEM)

✓ **CHEM 100 Chemistry and Society-GTSC2 (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 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 301 Analytical Chemistry (3)
Classical and instrumental methods of quantitative chemical analysis. Includes statistical treatment of experimental data, method characterization and validation, equilibrium, titrations, electrochemistry, spectroscopy, mass spectrometry, and chromatography. Prerequisite: CHEM 132. Corequisite: CHEM 301L.

CHEM 301L Analytical Chemistry Laboratory (1)
Classical and instrumental methods of quantitative chemical analysis. Includes statistical treatment of experimental data, method characterization and validation, equilibrium, titrations, electrochemistry, spectroscopy, mass spectrometry, and chromatography. Prerequisite: CHEM 132/132L.

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 316 Biochemistry II (3)
In-depth examination of fundamental biological processes including DNA replication, transcription, and protein synthesis. Skills for comparative genomics, protein visualization and sequence alignment developed. Prerequisites: CHEM 312 and CHEM 315.

CHEM 321 Physical Chemistry I (3)
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 301/301L; 312/312L; and 321. Corequisite: CHEM 442.

CHEM 351 Inorganic Chemistry I (3)
Study of periodic trends and bonding throughout the periodic table. Includes periodic properties, advanced electron-dot diagrams, VSEPR, symmetry, group theory, molecular orbital diagrams, electron counting, and basic nomenclature. Prerequisite: CHEM 312 (may be taken concurrently).

CHEM 352 Inorganic Chemistry II (3)
Application of periodic trends and high level bonding concepts to main group, solid state, organometallic, and advanced coordination chemistries. Includes acid-base chemistry, donor-acceptor chemistry, crystalline solids, ligand field stabilization energy, Jahn-Teller Effects, pi-bonding ligands, reaction pathways at transition metal centers, and catalysts. Prerequisite: CHEM 351.

CHEM 395 Independent Study (1-3)

CHEM 396 Topics (1-3)

CHEM 397 Structured Research (1-3)
Chemical research guided by a faculty member. Sophomore through senior levels. May be repeated for up to 4 credit hours. Prerequisite: Permission of instructor.

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)
CHEM 431L Instrumental Analysis Laboratory (1)
Modern instrumental methods of analysis. Topics include signals and

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noise, atomic spectroscopy, molecular spectroscopy, electroanalytical chemistry and chromatographic separation methods. Three lectures and one 3-hour laboratory per week. Prerequisite: CHEM 301/301L.

CHEM 442 Communicating in the World of Chemistry (1)
Study and application of communication skills necessary for careers in chemistry-related fields. Includes laboratory notebooks, chemical publications, cover letters, resumes, and formal oral presentations. Corequisite: CHEM 341.

CHEM 487 Formal Research (1-3)
Chemical research guided by a faculty member. Results presented as a formal scientific paper in a format suitable for publication. Topics include laboratory notebooks, independent research, and formal reporting of research. May be repeated for up to 4 credit hours.

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 497 Structured Research (1-3)
Chemical research guided by a faculty member. Senior level. May be repeated for up to 4 credit hours. Prerequisite: Permission of instructor.

CHEM 596 Topics (1-3)

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 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 and 142.

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 210 Project (3)
Exploration of advanced aspects of Computer Aided Design. Selected field project to develop more proficient understanding in 3-dimensional design. Final set of plans approved by and developed with faculty. Prerequisites: CADT 106, 107, and 108.

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. 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, and CISB 101 or CISB 205 or CISB 305.

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 310 Enterprise Architecture (3)
Enterprise IT solutions, applications, infrastructure and fit within business organizations. Prerequisite: CISB 210.

CISB 315 Information Systems Infrastructure (3)
Information systems infrastructure, computer architecture and communications networks in an organizational context. Prerequisite: CISB 210.

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 or CISB 241.

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.

✓ 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 53.

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 410 Project Management (3)
Processes, techniques and tools of project management. Evaluating, initiating, planning, staffing, executing, controlling, and closing projects using project management software. Prerequisite: CISB 210 is a prerequisite or corequisite if the student has reached junior status.

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. Prerequisites: CISB 210, CISB 310, CISB 315 (may be taken concurrently), CISB 410, and CISB 206 or CSCI 110 or CSCI 111, or permission of instructor.

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 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, the BAS in CIS, and the BBA IS concentration. 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 210, CISB 310, CISB 315, CISB 331, CISB 410, CISB 442, CISB 451, and CISB 470; or permission 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 505 Advanced Project Management (3)
Processes, techniques and tools of project management. Evaluating, initiating, planning, staffing, executing, controlling, and closing projects using project management software. Projects, writing, and presentation to demonstrate mastery at the graduate level. Prerequisite: CISB 210 and permission of instructor.

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 104 Intro to Computer Hardware (1)
Computer hardware introduction. Includes purchase, maintenance and repair of computer hardware (desktops, laptops, servers and mobile devices, wired and wireless network hardware) in individual and corporate settings.

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 135 (may be taken concurrently) or 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 305 Technology for Mathematics Educators(3)
Project- and activity-based introduction to technology resources appropriate for use by elementary mathematics educators. Focus will be on spreadsheets--programming, modeling, and data manipulation--supplemented with topics chosen from interactive geometry software, interactive applets, simple webpage design, educational simulations and games, and other mathematical technology tools. Prerequisites: MATH 113 and MATH 301.

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

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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 241. 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, 241.

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. Prerequisite: STAT 200.

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 264 Mechanical/Industrial Systems (3)
Analysis and design understanding of specialty mechanical and industrial processes. Includes fundamentals of thermodynamics, fluids, control interface issues, system testing and commissioning. Emphasis on fundamental theory followed by proof of concepts through practicum. Lecture, lab and field exercises. Prerequisites: MATH 113, CONC 101, and CONM 181.

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 264, 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: CONM 264 and 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 264, CONM 340 and CONM 401.

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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 495 Independent Study (1-3)

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)

The Craft programs are inactive for the 2014-15 academic year.

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 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 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 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 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 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 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)

CRIMINAL JUSTICE (CRMJ)

CRMJ 110 Orientation to Criminal Justice Inquiry (1)
Foundations of criminal justice. Educational and career planning. Incorporation of APA writing skills for upper-division criminal justice courses. Prerequisite: Must be a declared criminal justice pre-major.

CRMJ 196 Topics (1)

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 325 Juvenile Justice and Delinquency (3)
Juvenile delinquency and juvenile justice in the United States. Comparative component involved. Focus on the nature and extent of delinquency, causes of delinquency, theoretical explanations, patterns of delinquency, and social reaction to delinquency. 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: CRMJ 201 or POLS 101.

CRMJ 330 Domestic Violence (3)
Exploration of intimate and domestic violence through a life-course perspective. Child abuse and neglect, intimate partner violence, and elder abuse and neglect considered. Criminal justice responses and prevention efforts critically examined. Prerequisite: CRMJ 201.

CRMJ 335 Community Policing (3)
Contemporary policing philosophy used and accepted by most policing organizations, domestic and foreign. Concept of community policing, history of the movement as well as the various issues in its adoption and implementation. Philosophy of community policing affecting beth policing organizations and the community. Impact of community policing on crime, fear of crime, and the community in which utilized. Prerequisites: CRMJ 201 and CRMJ 310.

CRMJ 340 Community Corrections (3)
Applied and practical approach to community corrections. Assessment, supervision, reintegration, and community partnerships emphasized. Special needs populations, unique issues and challenges, and insights into day-to-day experiences of various community corrections practitioners examined. Prerequisite: CRMJ 201.

CRMJ 360 Crime and Deviance (3)
Relationship between crime, deviance, and social control. Differences in definitions of criminal and deviant behaviors explored. Various criminological and sociological theories of deviance analyzed. Focus on relation to crime and social control. Societal response to deviance critically examined. Prerequisite: CRMJ 201 or SOCO 260.

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 375 Women and Crime (3)
Nature of criminality pertaining to women. How and why women are treated differently than males in the criminal justice system. Analysis of why women make up a small but growing portion of criminal offenders. Explores the ramifications of criminal activity on women. Possible solutions and alternatives to the unique issues of female offenders.

CRMJ 387 Crime and Inequality (3)
Exploration of social-historical context influencing incarceration rates, disparate punishments of white-collar and corporate criminals, the causes and consequences of mass incarceration, and racial, gender, and class disparities in crime and justice. Prerequisite: CRMJ 201 or SOCO 260.

CRMJ 395 Independent Study (1-3)

CRMJ 396 Topics (1-3)

CRMJ 405 Civil Liability for Law Enforcement and Corrections (3)
Overview of civil liability of law enforcement and correctional officers. Torts and civil rights remedies, the doctrine of respondeat superior, and chain of liability. Specific issues of use of force, failure to protect, searches and segregation, inadequate medical care, and negligence examined. Prerequisite: CRMJ 201.

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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 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 CRMJ 201, 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 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 465 Contemporary Issues in Criminal Justice (3)
Focused analysis of specific contemporary issues in criminal justice. Topics vary according to current events and instructor expertise. Prerequisites: CRMJ 201, and CRMJ 310 or CRMJ 320 or CRMJ 328.

CRMJ 485 Research Methods II (3)
Advanced research concepts, methodologies, and techniques used in criminal justice. Focus on mixed methodological approaches. Incorporation of SPSS statistical software for practical application in research. Prerequisites: STAT 215 and CRMJ 315.

CRMJ 490 Comparative Criminal Justice (3)
Capstone course. Includes survey of selected international criminal justice systems, including police, courts, and correctional components. International perspectives of policing, courts, and corrections examined to determine variations across countries. Topics of transnational crime, terrorism, and juvenile justice explored from a global perspective to determine if the United States significantly differs in methodology, intensity, and focus of public policy. Special emphasis placed on geographical, historical, and cultural perspectives that make the systems unique and/or similar to those in the United States. Prerequisites: CRMJ 201 and CRMJ 315.

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. Prerequisities: Junior or senior status in Criminal Justice, CRMJ 201, and consent of instructor.

CRIMINAL JUSTICE: POST (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 (10)
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 (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 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 (2)
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 210 Emergency Dispatching (4)
Introduction to the basic fundamentals of emergency dispatching, to include basic principles of emergency communications operations and technology, call management and classification, legal aspects of dispatching, and stress management. Extensive practical training in police and fire emergency dispatching scenarios. Prerequisites: ENGL 111, MATH 107 or higher, CRMJ 201, and consent of instructor.

CRJW 270 Homicidal Drowning Investigations (2)
Homicidal Drowning Investigations - The approaches to water related death investigations. Exploration of the crime scene. Prerequisites: POST association, or Criminal Justice Major, or Law Enforcement, or Forensic study, or Fire Service, or Emergency Medical Services, or instructor's permission.

CRJW 280 Public Safety Diving Phase 1 (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: POST association, or Criminal Justice major, or Fire Service or medical evaluation, or physically fit or instructor's permission.

CRJW 290 Underwater CSI (2)
Underwater crime scene investigations. Operational development of underwater crime scene investigations. Operational protocol with public safety diving hazards. Proper evidence mapping and securing underwater crime scenes. Prerequisites: CRJW 280, medical evaluation, physically fit, or instructor's permission.

CRJW 296 Topics (1-4)

CULINARY ARTS (CUAR)

CUAR 100 Culinary Program Fundamentals (3)
Introduction to the basic fundamentals of the culinary, baking, and hospitality fields, and the interrelations between the student and his environment.

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 120 Wine and Spirits (2)
Examination of types of beverages and equipment including wines, beers, and spirits. Profitability, marketing, federal and local laws, and service will be discussed. The history of making and processing wines, spirits and beers will be studied.

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 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 150 Baking: Decorating and Presentation (3)
Introduction to techniques and equipment used in the modern bakery to produce, decorate and present pastries and desserts using a variety of products. Prerequisite: CUAR 145.

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CUAR 151 Intermediate Bread Preparation (3)
Examines techniques and equipment used in the modern bakery to craft traditional and artisanal yeast breads using a variety of commercial and pre-ferment/wild yeast leavening methods and production techniques. Prerequisite: CUAR 145.

CUAR 152 Individual Fancy Desserts Production (3)
Preparation and decoration of individual dessert items using production techniques and equipment used in commercial bakeries to craft traditional and modern pastries, tarts, petite fours and cookies. Prerequisite: CUAR 145.

CUAR 153 Confectionaries and Petit Fours (3)
Introduces the art of advanced pastry skills utilized to craft specialty items such as chocolates, candies and confections, marzipan and pastiallage sculpture, and petit fours. Prerequisite: CUAR 145.

CUAR 156 Nutrition for the Hospitality Professional (3)
Fundamentals of nutrition as they apply to the food service industry.

CUAR 163 Advanced Cake Decorating (3)
Introduction to advanced cake production techniques, and the equipment used in the modern bakery to craft wedding and specialty cakes. Prerequisite: CUAR 145.

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. Corequisite: CUAR 233.

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 CUAR145, or permission of instructor. Corequisite: CUAR 190.

CUAR 236 Advanced Baking (3)
Refinement of skills in the creation of breads and pastries, dessert garnishes and accompanying sauces, and specialty dessert products. Prerequisite: CUAR 145.

CUAR 245 International Cuisine (3)
Introduces full meal preparation of a variety of international cuisines. Ethnic ingredients and meals from the Mediterranean, Latin America, Southeast Asia, India, China, and Japan will be introduced. Prerequisites: CUAR 101, CUAR 125, and CUAR 129.

CUAR 251 Advanced Garde Manger and Hors D'Oeuvres (3)
Introduces the student to a broad array of both hot and cold hors d'oeuvres and appetizers. Students learn to prepare various ethnic hors d'oeuvres including tapas, antipasta, sushi, classical and contemporary canapes as well as show mirrors and platters. Prerequisites: CUAR 101 and CUAR 125.

CUAR 255 Supervision in the Hospitality Industry (3)
Skills necessary for creating a goal-oriented environment utilizing management principles in the hospitality 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 269 Dietary Baking (3)
Examines techniques and equipment used to produce high quality bakery products that address the issue of common food allergens and intolerances. Prerequisites: CUAR 145 and CUAR 156.

CUAR 271 Techniques of Culinary Competition - Hot Food(3)
Fundamental principles and technical skills, required to engage in hot food culinary competition. Precision in the areas of knife skills, mise en place, recipe development, perfect execution of culinary technique, and exploration of in-depth organizational processes.

CUAR 271A Advanced Techniques of Culinary Competition - Hot Food (3)
Fundamental principles and technical skills required to engage in hot food culinary competition. Precision in knife skills, mise en place, recipe development, perfect execution of culinary technique, and exploration of in-depth organizational processes. Advanced technique of culinary competition designed for culinary teams advancing to the next level of competition. Prerequisite: CUAR 271.

CUAR 272 Techniques of Culinary Competition - Cold Food(3)
Fundamental principles and technical skills required to engage in cold food culinary competition. Expose students to theories and principles of cold food show platters, elementary glazing techniques, hot food shown cold and other cold food competition concepts.

CUAR 272A Advanced Techniques of Culinary Competition - Cold Food (3)
Fundamental principles and technical skills required to engage in cold food culinary competition. Precision in knife skills, mise en place, recipe development, perfect execution of culinary techniques, and exploration of in-depth organizational processes. Advanced techniques of culinary competition for culinary teams advancing to the next level of competition. Prerequisite: CUAR 272.

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 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)
Includes alignment, balance, endurance, flexibility, and strength in elementary technical proficiency.

DANC 169 Beginning Modern Dance (1)
Includes alignment, balance, endurance, flexibility, and strength in elementary technical proficiency.

DANC 174 Beginning Jazz Dance (1)
Including terminology, theory, history & critical analysis of the Art Form.

DANC 177 Beginning Tap Dance (1)
Including terminology, theory, history & critical analysis of the Art Form.

DANC 180 Beginning Hip Hop Dance (1)
Fundamentals of Hip Hop, including alignment, balance, endurance, flexibility, and strength, in elementary technical proficiency.

DANC 181 Ballet I (2)
Beginning ballet technique for students intending to progress to an intermediate level.

DANC 182 Jazz I (2)
Beginning jazz technique for students intending to progress to an intermediate level.

DANC 183 Modern I (2)
Beginning modern technique for students intending to progress to an intermediate level.

DANC 184 Tap I (2)
Beginning tap technique for students intending to progress to an intermediate level.

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 Choreography (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 280 Hip Hop II (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.

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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 Choreography (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 396 Topics (1-3)

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 (3)
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 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 415 Econometrics (3)
Application of advanced statistical methods to economic and business problems. Includes multiple regression analysis. Sophisticated cross sectional models such as instrumental variable, probit, and tobit. Time series topics such as forecasting, autoregressive models, vector autoregressions, cointegration, and some panel methods. Prerequisites: CISB 241 or STAT 200, and CISB 341 or MANG 341, and ECON 201.

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 505 Advanced Econometrics (3)
Application of advanced statistical methods to economic and business problems. Includes multiple regression analysis. Sophisticated cross sectional models such as instrumental variable, probit, and tobit. Time series topics such as forecasting, autoregressive models, vector autoregressions, cointegration, and some panel methods. Demonstration of mastery of material through graduate level projects, writing, and presentations. Prerequisites: CISB 241 or STAT 200, MANG 341 or CISB 341, ECON 201, and permission of instructor.

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,

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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 122 Ethics in Early Childhood Education (1)
Practical approach to recognizing, understanding, and resolving issues confronting professionals in education and business. Emphasizes historical development of ethics. Application of critical thinking and decision-making skills to ethical dilemmas in classroom, business, community and governmental settings. Exploration of methods of resolution through ethical reasoning and the National Association for the Education of Young Children (NAEYC) professional codes. Emphasizes logical analysis, critical thinking, and responsible ethical decision making.

EDEC 195 Independent Study (1-3)

EDEC 196 Topics (1-3)

EDEC 205 Nutrition, Health, Safety(3)
Focuses on nutrition, health, and safety as a key factor for optimal growth and development of young children. Includes nutrient knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families. Addresses ages from prenatal through age 8.

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 296 Topics (1-3)

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 201 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 leading 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.

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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 models of inquiry. Designing standards-based instruction as guided and exploratory interdisciplnary compulsories across the curricula. Field based with online and classroom components. Involves a minimum of five hours of preparation/online interaction per week and participation in nine (Aug/Sept/Oct/Nov/Dec) four-hour classroom seminars. Prerequisites: EDUC 591 and EDUC 586A. Co-requisites: EDUC 487, EDUC 488, and EDUC 492A.

EDUC 487 Literacy Education K-6 (3)
Designing, developing, implementing and assessing well-aligned, well-differentiated, discipline-specific curricula, instruction, assessments and accommodations unique to K-6 Literacy Education. Field based with online and classroom components. Involves a minimum of five hours of preparation/ online interaction per week and participation in nine (Aug/Sept/Oct/ Nov/Dec) five-hour classroom seminars. Prerequisites: EDUC 586A and EDUC 591. 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. Involves a minimum of five hours of preparation/ online interaction per week and participation in nine (Aug/Sept/Oct/ Nov/Dec) four-hour classroom seminars. Prerequisites: EDUC 586A and EDUC 591. Corequisites: EDUC 492A, EDUC 485 and EDUC 487.

EDUC 492A ITL 2: Directed Teaching - Elementary Education (4)
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 586A and EDUC 591. Corequisites: EDUC 485, EDUC 487 and EDUC 488.

EDUC 492B ITL 2: Directed Teaching - Secondary Education (4)
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 591 and EDUC 586B. 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 Colorado Mesa University 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

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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 586A 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 twelve hours of preparation/online interaction per week and participation in four (May/June/July) eight-hour classroom seminars. Corerequisite: EDUC 591.

EDUC 586B 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 twelve hours of preparation/online interaction per week and participation in four (May/June/July) eight-hour classroom seminars. Corerequisite: EDUC 591.

EDUC 591 PBL 1: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 May/June/July course involves a minimum of six hours of preparation/online interaction per day and participation in ten eight-hour classroom seminars. Prerequisite: Admission to the (cohort) PBL program. Corequisite: EDUC 586A or EDUC 586B.

EDUC 595 Topics in Teaching (0.5-3)

EDUC 596 Topics in the Content Areas (0.5-4)

EDUC 599A 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: EDUC 485, EDUC 487, EDUC 488, EDUC 492A, EDUC 586A, and EDUC 591.

EDUC 599B PBL 3: Directed Teaching: Secondary Education (12)
Continued full-time mentored January-May 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: EDUC 442, EDUC 492B, EDUC 497, EDUC 497 A, B, C, or D, EDUC 586B, and EDUC 591.

EDUCATION: MASTER OF ARTS ACADEMIC CORE (EDUC)

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 (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 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

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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.

EDLD 595 Independent Study (1-3)

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.

EDUCATION: SPECIAL EDUCATION (EDSE)

EDSE 496 Topics (1-3)

EDSE 500 Foundation of Special Education Including Law(3)
Knowledge and skills needed in special education. An evolving discipline based on philosophies, evidence-based principles and theories, relevant laws and policies, diverse and historical viewpoints, and societal influences on the education and treatment of individuals with exceptional needs.

EDSE 501 Instructional Strategies in Special Education (3)
Overview of methodologies used in the instruction of students with special learning needs. Explores the purpose of an Individualized Education Program and its use as a guide in the development of a learning plan based on the student's learning characteristics including strengths, needs, and the impact of disability on his/her learning in the general education classroom. Prerequisite: EDSE 500.

EDSE 502 Behavioral Interventions for the Special Needs Learner (3)
Focuses on research-based assessment and intervention strategies for working with students who present challenging behavior in the classroom. Prerequisites: EDSE 500 and EDSE 501.

EDSE 503 Methods of Teaching Students with Mild Disabilities Reading and Math (3)
Provides an understanding of the nature of reading and arithmetic and of challenges faced by children and adolescents with a wide array of exceptionalities. Major approaches to teaching and learning in reading and math. Development of diagnostic-prescriptive approaches. Prerequisites: EDSE 500 and EDSE 501.

EDSE 506 Educating Students with Low Incidence Disabilities in Inclusive Environments (3)
Examines types of low-incidence disabilities, including mental retardation, autism, physical disabilities, traumatic brain injury, deafness, blindness, multiple disabilities, and other health impairments, that affect academic and job performance. Current methods for teaching individuals with low-incidence disabilities. Prerequisites: EDSE 500 and EDSE 501.

EDSE 510 The Twice Exceptional Learner, Including Gifted and Talented (3)
Provides tools to identify twice exceptional students and selection appropriate strategies so that gifted students with disabilities can learn at appropriate levels. Prerequisites: EDSE 500 and EDSE 501.

EDSE 515 Internship K-6 Elementary Practicum in Special Education (3)
Provides support in teaching and learning of elementary students. Integrated field supervision to achieve professional competencies. Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503, EDSE 506, and EDSE 510.

EDSE 520 Internship 6-12 Secondary Practicum in Special Education (3)
Provides support in teaching and learning of secondary students. Integrated field supervision to achieve professional competencies. Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503, EDSE 506, and EDSE 510.

EDUCATION: TEACHER LEADERSHIP COGNATE (EDTL)

EDTL 510 Teacher Leadership I (2)
Development of an understanding of the role of instructional leader and change agent in today's PK-12 schools. Development of instructional leader skills and effective instructional knowledge base outlined in the Teacher Leader Model Content Standards. Includes mentoring, coaching, frameworks for effective teaching, engaging students, collegial conversations, constructive feedback systems, Professional Learning Communities.

EDTL 511 Teacher Leadership II (2)
Analysis of typical teaching problems. Examines best practices, action research, and facilitation skills. Prerequisite: EDTL 510. Corequisite: EDTL 526.

EDTL 512 Facilitation and Presentation (2)
Teacher Leaders working with teachers to improve student achievement. Explores facilitation of groups, from small teacher teams to the entire school community. Emphasis on equipping leaders with a variety of presentation skills to lead school change.

EDTL 513 Information Based Educational Practice (2)
Focus on standards-based educational practice. Analysis and interpretation of data as they inform educational practice. Data Driven Dialogues implemented as catalysts for educational change. Development of skills necessary to observe, analyze, and evaluate data from a multiple measures perspective. Foundational uses of technology examined. Corequisite: EDTL 526.

EDTL 517 Assessment Literacy (1)
Construction, administration and interpretation of formative and summative educational assessments for the systematic analysis of student learning and teaching practice. Validity, reliability and basic statistical analysis, as well as design of rubrics and other scoring approaches included. Corequisite: EDTL 526.

EDTL 518 Diversity and Differentiated Instruction (2)
Differentiated curriculum, assessment, and instruction, the latest brain research, and a mindset of diversity as a strength. Focuses on different learning learning populations including, but not limited to, Special Education, ESL, Gifted and Talented, Children of Poverty.

EDTL 525 Internship I (1)
Application of theory and research to the analysis and synthesis of field experiences in leadership. Structured on building and district level initiatives. Includes experiences that increasingly require full management of a project. Prerequisites: EDTL 510 and EDTL 512.

✓ 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 53.

EDTL 526 Internship II (2)
Application of theory and research to the analysis and synthesis of field experiences in leadership. Structured on building and district level initiatives. Includes experiences that increasingly require full management of a project. Prerequisites: EDTL 510, EDTL 512, EDTL 513, and EDTL 525.

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 101 Energy Management Fundamentals (3)
Introduction to basic concepts of energy management.

EMGT 196 Topics (1-3)

EMGT 201 Land Management Fundamentals (3)
Introduction to basic concepts of land management and practices.

EMGT 296 Topics (1-3)

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.

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 secruity issues surrounding the energy industry. Alternative energy sources and other current issues in energy management. Prerequisite: EMGT 340.

EMGT 496 Topics (1-3)

EMERGENCY MEDICAL TECHNICIAN (EMTS)

The Paramedic programs are inactive for the 2014-15 academic year.

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 115 Emergency Medical Responder (3)
This course covers the knowledge and skills to provide emergency care for most medical emergencies. Emergency Medical Responders provide immediate care as part of the EMS system while awaiting additional EMS response and transportation. This course meets the requirements to become nationally certified as an NREMR - National Registered Emergency Medical Responder.

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 196 Topics (1-3)

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.

✓ 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 53.

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)

In order to take any of the following engineering courses, each listed prerequisite (or an equivalent course) must be completed with a grade of "C" or better. The instructor may waive the prerequisite.

ENGR 101 Introduction to Engineering (1)
Facets of engineering. Includes history of the profession, mechanical engineering and mechanical technology curriculum, industries in which engineers practice, and expectations and tools for academic success. Introduces engineering tools used in later courses. Hands-on experiences, visiting industry, oral presentations, meeting faculty and practicing professions.

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 115 (may be taken concurrently).

ENGR 196 Topics (1-3)

ENGR 224 Materials Science (2)
ENGR 224L Materials Science Laboratory (1)
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 and PHYS 131/131L.

ENGR 225 Introduction to Manufacturing (3)
Principles, processes, and problems associated with the conversion of engineered materials into useful goods. Fundamentals of geometric specification, casting, machining, plastic deformation, bulk deformation, joining processes, and additive processes for metals, plastics, ceramics, and composites. Prerequisite: ENGR 224.

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 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: MATH 136 or MATH 152, and PHYS 131/131L.

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 305 Engineering Economics & Ethics (2)
Applications of economics, statistics, and ethics for mechanical engineers. Topics include cost concepts and design economics, money-time relationships, and comparison of alternatives. Engineering ethics includes personal vs. professional ethics, ethical problem-solving techniques, rights and responsibilities of engineers, and whistle-blowing. Prerequisites: ENGR 101, ENGR 140, and MATH 119, MATH 135, or MATH 151.

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 136 or MATH 152, and PHYS 131/131L.

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 136 or MATH 152, and PHYS 131/131L.

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 or MATH 136, and PHYS 131/131L.

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 336 Heat and Power (3)
Discussion of major modes of heat transfer. Includes steady and transient conduction, internal and external convection, and radiation with emphasis on industrial applications. Heat exchanger and boiler analysis and related codes and standards discussed. Prerequisites: ENGR 312 and ENGR 321.

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.

ENGR 345 Engineering Integration I (3)
First course in a design sequence integrating concepts from the mechanical engineering technology curriculum. Emphasis on laboratory experience and the design, analysis, and testing of mechanical systems. Team project work on "design-and-build" projects will require manufacture of mechanical systems and/or electronic circuits. Prerequisites: ENGR 224, ENGR 263, and MAMT 106.

ENGR 385 Engineering Integration II (3)
Second course in a design sequence integrating concepts from the mechanical engineering technology curriculum. Emphasis on laboratory experience and the design, analysis, and testing of mechanical systems. Team project work on "design-and-build" projects will require manufacture of mechanical systems and/or electronic circuits. Prerequisite: ENGR 345.

ENGR 395 Independent Study (1-3)

ENGR 396 Topics (1-3)

ENGR 401 Professionalism Seminar (1)
Preparation for a career in the engineering profession. Topics in professionalism, ethics, resumé building, innovation, internships, and current engineering issues explored. Prerequisite: junior standing or higher.

ENGR 425 Advanced Manufacturing (3)
Use of cutting edge materials and emerging capabilities that utilize the coordination of information, automation, computation, software, sensing and networking. Includes discussion of product data management, flexible manufacturing, manufacturability, and product life-cycle management. Prerequisites: ENGR 225, ENGR 305, and STAT 305.

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 and STAT 200.

ENGR 427 Engineering Measurements (2)
Methods of experimentation and data analysis. Specific skills used in planning an experiment, applying sound procedures, keeping proper records, and communicating results orally, with posters and in written reports developed. Prerequisites: ENGR 263, ENGR 317, STAT 305, and ENGL 425.

✓ 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 53.

ENGR 435 Industrial Controls (3)
Fundamentals of control of manufacturing processes. Applications of relay logic, input/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 436 Fluid & Electric Power Systems (3)
A mechanical approach to industrial power systems. Applications emphasize the selection and function of hardware and interfacing of hydraulic, pneumatic and electric systems with mechanical, fluidic and electrical/electronic controls. Topics covered include transformers, motors, generators, motor controls, and protective devices. Prerequisites: ENGR 321 and ENGR 435.

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 140, ENGR 312, ENGR 321, ENGR 325, SPCH 102, MAMT 115, and ENGL 425.

ENGR 446 Writing for Design Projects (1)
Communication of professional writing to the technical and non-technical audience. Skills are developed to analyze rhetorical situations and compose documents that achieve a specific purpose and meet the needs of a particular audience. Writing with clarity, conciseness and correctness will be emphasized. Corequisite: ENGR 485.

ENGR 455 Fluid Power Systems (3)
Coverage of the fundamentals of hydraulic and pneumatic systems and their components, fluid power circuit design, analysis, and troubleshooting for industrial applications, introduction to electro-pneumatics. Prerequisite: ENGR 321.

ENGR 460 Energy Systems (3)
Discussion of conventional, alternative and renewable energy systems, such as wind, solar, clean coal, and geothermal. Challenging energy problems relevant to the industry presented and analyzed. Prerequisites: ENGR 312 and ENGR 321.

ENGR 465 Electric Power Systems (3)
Basic understanding of electric power systems; generation, transmission, distribution and consumption. Review of AC circuit analysis in single and three phase systems using time domain and phasor representation. Includes magnetic circuits, transformers and renewable energy generation from photovoltaic cells. Introduces electromechanical energy conversion from experiments with induction and synchronous motors/generators, and includes photovoltaic panels. Prerequisite: ENGR 317.

ENGR 481 Thermal-Fluid Systems Analysis Using CFD (3)
Presentation of advanced computer simulation tools for analysis of thermal-fluid problems (fluid mechanics, thermodynamics, and heat transfer). Fundamentals of CFD (computational fluid dynamics) such as grid generation, solution techniques and convergence, modeling and simulation, and analysis of results for representative industrial problems discussed. Prerequisites: CSCI 130 and ENGR 336.

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 (1-4)

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: DEVELOPMENTAL (ENGC)

ENGC 090 College Preparatory Reading and Composition (3)
This course uses whole language to develop proficiency in reading and writing for college. Emphasis is placed on applying analytic and critical reading skills in a variety of texts and on introducing the writing process. Upon completion, students should be able to recognize and use various patterns of text organization and compose effective paragraphs and essays. This course integrates ENGL 060/090 and READ 060/090. Successful completion of this course will prepare students to take college level general education courses in conjunction with a co-requisite reading/writing studio (READ 092/ ENGC 092).

ENGC 092 Writing Studio (1)
This course is designed to offer supplemental support for students in ENGL 111 and writing intensive courses across the disciplines. This is a corequisite with ENGL 111 or social science 100 discipline strands for students with Accuplacer scores less than 70.

ENGC 096 Topics (1-4)

ENGLISH (ENGL)

✓ **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 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 210 Introduction to Literary Studies (3)
Introduction to the theory and practice of studying literature. Prerequisite: ENGL 111.

✓ **ENGL 219 Introduction to Professional Writing-GTCO3 (3)**
Study of technical writing, public information and public relations writing, and free-lance nonfiction writing. Prerequisite: ENGL 112.

✓ **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.

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.

✓ **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. Prerequisite: ENGL 112.

ENGL 311 English Medieval Literature (3)
Major works of Old and Middle English literature. Prerequisite: ENGL 112.

ENGL 313 English Renaissance Literature (3)
Major works of the 16th and 17th Centuries, including the Metaphysical and Caroline poets and John Milton. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112.

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, private and corporate foundations. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112.

ENGL 335 The Bible as Literature (3)
A survey of Biblical literature in literary and historical contexts. Includes the Hebrew Bible/Old Testament, the New Testament, and non-canonical Biblical literature. Prerequisite: ENGL 112.

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 112.

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. Prerequisite: ENGL 112.

✓ 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 53.

ENGL 365 Literature for Young Adults (3)
Advanced study of major works for youth and adolescents throughout history, with an emphasis on contemporary authors. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 250 or consent of instructor.

ENGL 383 Creative Writing: Poetry (3)
Theory and practice of producing original works of poetry. Prerequisites: ENGL 250 or consent of instructor.

ENGL 384 The Art of the Essay (3)
Theory and practice of objective non-fiction, including expository and persuasive writing. Emphasis on style, structure, and audience. Prerequisite: ENGL 250 or consent of instructor.

ENGL 385 Technical and Professional Writing (3)
Practice in writing and editing of workplace documents, including correspondence, reports and proposals. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112.

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 388 Creative Writing: Crafting Poetry (3)
In-depth focus on a specialized aspect of poetry writing. Prerequisite: ENGL 250 or consent of instructor.

ENGL 390 Introduction to Film Studies (3)
Introduction to film narrative, cinematography, and theory. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112.

ENGL 395 Independent Study (1-3)
Prerequisite: ENGL 112.

ENGL 396 Topics (1-3)
Prerequisite: ENGL 112.

ENGL 397 Practicum (3)
Experience in a Basic Writing classroom helping the instructor with all phases of writing instruction. Prerequisite: ENGL 250 or consent of instructor.

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: ENGL 112.

ENGL 415 American Folklore (3)
Explores folk expressions of values, beliefs, traditions, attitudes, and worldviews. Prerequisite: ENGL 112.

ENGL 421 Introduction to Literary Theory and Criticism (3)
Development and theory of literary criticism. Prerequisite: ENGL 210.

ENGL 423 Genre Studies (3)
History and development of an individual literary genre. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112 or 45 credit hours.

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. Prerequisite: ENGL 112 or 45 credit hours.

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. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112.

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. Prerequisite: ENGL 112.

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: ENGL 112 and Junior standing, 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: ENGL 112 and Junior standing, or consent of the instructor.

ENGL 470 18th Century British Literature (3)
Conceptual framework of the Enlightenment in England's representative writers. Prerequisite: ENGL 112.

ENGL 471 British Romanticism (3)
Representative works of writers attempting to discover a higher reality than that offered by materialism or rationalism. Prerequisite: ENGL 112.

ENGL 475 Victorian Literature (3)
Representative works of post-Romantic British literature. Prerequisite: ENGL 112.

ENGL 478 20th Century British Literature (3)
Major works from 20th Century British writers. Prerequisite: ENGL 112.

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. Prerequisites: ENGL 250, and Junior standing, or consent of instructor.

ENGL 494 Seminar in Literature (3)
Analysis of an important literary work or works, requiring students to interpret, criticize, and present research. Prerequisite: ENGL 210 and Senior standing, or consent of instructor.

ENGL 495 Independent Study (1-3)
Prerequisite: ENGL 112.

ENGL 496 Topics (1-3)
Prerequisite: ENGL 112.

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. Prerequisite: Senior standing or consent of instructor.

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. Prerequisite: Bachelor's Degree.

ENGL 596 Topics (1-3)
Prerequisite: Bachelor's Degree

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 150 Introduction to Environmental Field Studies (1-3)
Techniques for common field measurements in environmental science. Basic interpretation and statistical analysis of data. Human effects on natural systems.

ENVS 196 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 53.

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 associated with hazardous materials. Includes basic toxicology, threat assessment, and control strategies. Meets 40-hour OSHA training requirement for hazardous waste operations. Prerequisite: ENVS 221 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 and operation of selected treatment technologies, and waste minimization audits. Prerequisites: ENVS 104; mastery of high school algebra; CHEM 121 or 131 recommended.

ENVS 278 Permaculture Design (2)
ENVS 278L Permaculture Design Laboratory (2)
Practical application of ecology to design of sustainable human and agricultural systems. Topics include permaculture principles, design strategies, sustainable agriculture, natural building, cooperative economics, and neighborhood design. Students work in teams to complete a design project for a local site.

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 204, ENVS 221, ENVS 331, ENVS 340.

ENVS 312 Soil Science and Sustainability (3)
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 Laboratory (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 337 Stream Biomonitoring (2)
Examination of the structure and organization of macroinvertebrate assemblages in streams and rivers. Topics include sample collection, sample preservation, sample identification, and analysis using the State of Colorado multimetric index for assessing water quality. Prerequisite: ENVS 331/331L.

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 354 Forest Ecology and Management (3)
Examination of the structure and function of trees and forests. Topics include forest stand development, carbon cyling, nutrient cycling, forest disturbances, and basic practices of sustainable forest management. Prerequisite: ENVS 204 and ENVS 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.

✓ 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 53.

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, and STAT 200 or CISB 241.

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

FRENCH (FLAF)

FLAF 111 First-Year French I (3)
Introduction to the French language and culture.

FLAF 112 First-Year French II (3)
Introduction to the French language and culture.

FLAF 211 Second-Year French I (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 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)

FLAG 111 First-Year German I (3)
Introduction to the German language.

FLAG 112 First-Year German II (3)
Introduction to the German language.

FLAG 211 Second-Year German I (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 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.

GREEK (FLGK)

FLGK 111 Introductory Greek I (3)
An introduction to the fundamentals of reading ancient Greek. Emphasizes basic vocabulary and grammar. Explores aspects of Greek literature and culture. Provides a foundation for the study of ancient Greece. Develops a practical understanding of English.

FLGK 112 Introductory Greek II (3)
Introduction to the fundamentals of reading ancient Greek. Emphasizes basic vocabulary and grammar. Explores basic vocabulary and grammar. Explores aspects of Greek literature and culture. Provides a foundation for the study of ancient Greece. Develops a practical understanding of English.

JAPANESE (FLAJ)

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.

LATIN (FLLT)

FLLT 111 Introductory Latin 1 (3)
FLLT 112 Introductory Latin 2 (3)
Introduction to reading classical Latin. Emphasizes basic vocabulary and grammar. Explores aspects of Latin literature and Roman culture. Provides a foundation for the study of ancient Rome. Develops a practical understanding of English.

FLLT 395 Independent Study (1-3)

SPANISH (FLAS)

FLAS 111 First-Year Spanish I (3)
Basic Spanish language skills. Introduction to greetings, classroom and family vocabularies in the present and present progressive tenses. Hispanic cultural and social interactions.

FLAS 112 First-Year Spanish II (3)
Continuation of basic Spanish language skills. Introduction of specialized vocabularies and past tenses (preterit vs. imperfect). Continuation of Hispanic cultural and social interactions. Prerequisite: FLAS 111 or consent of instructor.

FLAS 114 Conversational Spanish I (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 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

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interest. Prerequisites FLAS 111, FLAS 112 [or their equivalent].

FLAS 211 Second-Year Spanish I (3)
End of basic Spanish language skills. Introduces subjunctive mood, future and conditionals and other language constructions. Prerequisite: FLAS 112 or consent of instructor.

FLAS 212 Second-Year Spanish II (3)
Review of Spanish grammar. Practice in writing, speaking, listening comprehension and reading. Prerequisites: FLAS 211, or consent of instructor.

FLAS 290 Special Studies in Spanish (1-3)

FLAS 295 Independent Study (1-3)

FLAS 301 Advanced Spanish Grammar (3)
Level of instruction that assumes a previous formal contact with Spanish. It is not only devoted to increase awareness of grammatical accuracy but also develops the form and structure of language, always oriented towards a practical use of Spanish. Prerequisites: FLAS 212 or consent of instructor.

FLAS 302 Advanced Spanish Composition (3)
Writing of well-structured and clearly-planned compositions of varying lengths and styles. Provides the opportunity for students to do research and prepares them for the writing of regular term papers in Spanish. Prerequisites: FLAS 301 or instructor permission.

FLAS 303 Advanced Spanish Conversation (3)
Conversational practice in Spanish over a wide range of topics. Strategies in organization of oral discourse, and improvisation with special attention to advanced expression, grammaticality, and specific characteristics of spoken language. Prerequisites: FLAS 301 and FLAS 302.

FLAS 311 History and Culture of Spain (3)
History and culture of Spain. Early inhabitants through the twenty-first century. Written and oral reports in Spanish. Emphasizes development of cultural awareness and language skills. Prerequisite: FLAS 301, FLAS 302, and FLAS 303, or consent of instructor.

FLAS 312 History and Culture of Latin America (3)
History and culture of Latin America from early inhabitants through the twenty-first century. Written and oral reports in Spanish. Emphasizes development of cultural awareness and language skills. Prerequisites: FLAS 301, FLAS 302, and FLAS 303, or consent of instructor.

FLAS 321 Introduction to the Literature of Spain (3)
Introduction to the literature of Spain from the Middle Ages through the twenty-first century. Includes excerpts from major works in poetry, narrative, and theater. Prerequisites: FLAS 301, FLAS 302, and FLAS 303, or consent of instructor.

FLAS 322 Introduction to the Literature of Latin America (3)
Introduction to the literature of Latin America from Columbus through the twenty-first century. Includes indigenous traditions and excerpts from major works in poetry, narrative, and theater. Prerequisites: FLAS 301, FLAS 302, and FLAS 303, or consent of instructor.

FLAS 341 Spanish and the Nature of Language (3)
Introduction to human language. Spanish is the primary source for description and analysis. Phonetics & Phonology, Morphology, Language and Society, Language Acquisition, and Language Contact. Prerequisites: FLAS 301, FLAS 302, and FLAS 303, or consent of instructor.

FLAS 396 Topics (1-3)

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 301, FLAS 302, FLAS 303, and FLAS 342, or consent of instructor.

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 301, FLAS 302, FLAS 303, and FLAS 341.

FLAS 423 Hispanic Drama and Film (3)
Exploration of dramatic texts and/or cinema from throughout the Spanish speaking world. May include plays and films by Hispanic authors in the United States. Prerequisites: FLAS 301, FLAS 302, FLAS 303, and FLAS 341, or consent of instructor.

FLAS 431 Spanish for Medical and Social Services (3)
Provides for acquisition and refinement of superior linguistic and cross-cultural Spanish/English skills used in health care and social services. Prerequisites: FLAS 301, FLAS 302, FLAS 303, and FLAS 341, or consent of instructor.

FLAS 433 Business Spanish (3)
Exploration of linguistic and cultural aspects of business in a Hispanic context. Developing skills necessary for professional correspondence. Prerequisites: FLAS 301, FLAS 302, FLAS 303, and FLAS 341, or consent of instructor.

FLAS 434 Translation (3)
Fundamentals of translation. Insights and practice in translation. Focus is on the Spanish-English language pair. Prerequisites: FLAS 301, FLAS 302, FLAS 303, and FLAS 341, or consent of instructor.

FLAS 435 Interpreting (3)
Fundamentals of interpreting. Enhancement of linguistic and cross-cultural skills dealing with Spanish-English interpreting. Prerequisites: FLAS 301, FLAS 302, FLAS 303, and FLAS 341, or consent of instructor.

FLAS 441 Spanish Phonetics and Phonology (3)
Theory and practice of Spanish phonetics and phonology. Focus on variation in the Hispanic world. Spanish and English in contrast. Improvement in pronunciation. Prerequisites: FLAS 301, FLAS 302, FLAS 303, and FLAS 341, or consent of instructor.

FLAS 442 Methodology of Teaching Foreign Languages (3)
Examination of current trends, methods, and techniques in foreign language

pedagogy. Prerequisites: FLAS 301, FLAS 302, FLAS 303, FLAS 341, and FLAS 441, or consent of instructor.

FLAS 444 Using Technology, Literature and Culture in the Spanish Language Classroom (3)
Examination of current trends and techniques in the use of literature, technology and culture for teaching Spanish. Prerequisites: FLAS 311, FLAS 312, FLAS 321, FLAS 322, and FLAS 341, or consent of instructor.

FLAS 495 Independent Study (1-3)

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)

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.

FORENSIC ANTHROPOLOGY (FOAN)

✓ **FOAN 180 Survey of Physical Anthropology-GTSS3 (3)**
✓ **FOAN 180L Survey of Physical Anthropology Laboratory-GTSS3 (1)**
Exploration of biological evolution and variation in humans, mankind's place in nature, origin, and antiquity as represented in the fossil record; recent studies of non-human primates; the beginnings of culture; application of physical anthropology in forensic science.

FOAN 232 Survey of Forensic Science (3)
Exploration of the relationship between science and society by noting the history and nature of the forensic scientist in aiding to resolve various legal issues and the role of the expert witness. Includes an overview of death investigation, scene investigation, and current forensic techniques.

FOAN 396 Topics (1-3)

FOAN 450 Forensic Taphonomy (3)
Exploration of human decomposition as it relates to medico-legal cases in the estimate of post-mortem interval and the reconstruction of what happened to the remains at and around the time of death and between death and the discovery of wounds, coverings, burnings and submersion on decomposition. Prerequisites: Junior or Senior standing, and BIOL 410.

FOAN 475 Human Remains Detection and Recovery for Medico-Legal Investigations (3)
Archaeological techniques applied to detection and recovery of recent human remains. Includes practical experience of approximately 6 hours on an announced date. Prerequisites: BIOL 410, FOAN 450, or experience in law enforcement or a coroner's office and permission of the instructor.

FOAN 499 Internship (1-6)
Opportunities to apply theoretical principles in a structured research or organizational environment. Required clock hours dependent upon credit hours. Prerequisites: Junior or Senior status, BIOL 410, consent of instructor, Hepatitis B vaccinations, and a TB skin test before and after class. Course may be repeated for a maximum of six credit hours.

GEOGRAPHY (GEOG)

✓ **GEOG 102 Human Geography-GTSS2 (3)**
Introduction to spatial dimensions of the human world. Demography, human settlements and land use, political and economic systems, ethnicity, religion, and language examined from a spatial perspective.

✓ **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

✓ 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 53.

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 108 Water, People, and Environment (3)
General introduction to the essential nature of water on Earth. Provides students with a comprehensive foundation in the water cycle, human use of water, water and the environment, the politics of water, and the critical issues surrounding water as a resource. Overview of global water issues as well as a focus on water in the American West, including the sources and uses of water, its importance as a resource, the critical issues of water conservation and scarcity, and the legal, political, economic and physical infrastructure that controls water in the American West.

✓ **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, aerial photographs, and pace and compass methods. Profiles, cross-sections, and maps are prepared. Some unscheduled time is required to do mapping projects.

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 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

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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)
Design, implementation, and completion of independent research project including proposal and report writing, and oral presentations. Critiques of geologic literature, data compilation, and periodic oral presentations are also required. Prerequisites: upper division standing.

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.

GEOL 499 Internship (1-4)

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.

HSCI 401 Health Informatics I - Data Analysis (2)
Reviews statistical analysis, HIPPA, confidentiality, and terminology pertinent to health informatics. Prerequisite: permission of instructor.

HSCI 406 Health Informatics II: Project Design & Implementation (2)
Explores application of knowledge and skills to selected health informatics project. Prerequisite: permission of instructor.

HSCI 501 Advanced Health Informatics I - Data Analysis (1)
Reviews statistical analysis, HIPPA, confidentiality, and terminology pertinent to health informatics at the graduate level. Prerequisite: permission of instructor.

HSCI 506 Advanced Health Informatics II: Project Design and Implementation (2)
Explores application of knowledge and skills to selected health informatics projects at the graduate level. Prerequisite: permission of instructor.

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.

HIST 296 Topics (1-3)

HIST 300 History of England to 1660 (3)
Examines the political, social, and cultural developments of England from the ancient period to the end of the English Civil Wars, with particular attention to England's contributions to the Western heritage. Prerequisite: HIST 101.

HIST 301 History of Modern Britain (3)
Examines the political, social, and cultural history of Great Britain from the Restoration of the monarchy in 1660 to the modern era. Prerequisite: HIST 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

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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 333 The International History of the Cold War (3)
Exploration of the international ramifications of the Cold War, from the end of World War II to the collapse of the Soviet Union. Prerequisites: HIST 102 and HIST 132.

HIST 334 History of the British Empire (3)
Explores the origins, development, and decline of the British Empire from 1550 to 2000, with particular attention on the effects of empire on native peoples and the consequences of empire for Great Britain. Prerequisite: HIST 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 394 Junior Seminar in Historiography (3)
Examines the role of historiography in the historical discipline, with the intent of preparing students to undertake an historical research project. Topic varies by semester, depending upon specialty of instructor. Prerequisite: HIST 101, HIST 102, HIST 132, and HIST 202.

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 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 425 History of Sexuality (3)
Historical discussions on sexuality from the New World to present. Analysis of gender, race, ethnicity, class, and region in historical context. Prerequisite: HIST 132.

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 445 The Holocaust (3)
Exploration of the origins, implementation, and cultural representations of Nazi Germany's "Final Solution." Prerequisite: HIST 102.

HIST 450 European History and Film (3)
Examines the medium of film and how it shapes perceptions of European history. Focuses on the treatment of film as historical text. Postulates whether filmmakers are historians. Prerequisites: HIST 101 and HIST 102.

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 496 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 200 Management and Supervisory Skills for the Hospitality Industry (3)
Evaluates the supervisory and management processes through a comprehensive overview of how these processes relate to specific hospitality industry applications. Prerequisite: HMGT 101 or consent of instructor.

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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 200 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 200.

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 218 Housekeeping Operations (3)
Comprehensive overview of managing housekeeping operations in the lodging industry including practical applications to industry segments and impact on capital expenditures. Prerequisite: HMGT 101 or consent of instructor.

HMGT 241 Food and Beverage Operations (3)
Comprehensive overview of management processes in food and beverage operations including site visits and industry guest lecturers. Prerequisite: HMGT 101 or consent of instructor.

HMGT 295 Independent Study (1-3)

HMGT 296 Topics (1-3)

HMGT 299 Internship (1-12)
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 200, 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 200, 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 200, 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 Sales and Marketing (3)
Strategic and operating sales and marketing plans for hospitality properties. Includes development of a sales and marketing plan as a semester project. Prerequisite: MARK 231 or consent of instructor.

HMGT 470 Hospitality Management Strategies (3)
Comprehensive overview of major hospitality industry managment segments. Includes management strategies adapting to the rapidly changing hospitality industry environment. Prerequisites: HMGT 101, HMGT 200, HMGT 410, HMGT 450, or instructor permission.

HMGT 495 Independent Study (1-3)

HMGT 496 Topics (1-3)

HMGT 499 Internship (1-12)

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 course is scheduled for an eight week module and designed to emphasize and assess basic skills, related knowledge and the importance of physical activity in promoting and maintaining personal health. Students will learn and apply health and fitness concepts while gaining skills relating to the specific activity. Throughout the eight weeks, students will complete various assignments designed to encourage physical activity, healthy lifestyle changes and application health and fitness concepts. Prerequisites for all "Intermediate" or part II classes: the corresponding beginning course or instructor consent.

KINA 101 Beginning Swimming (1)
KINA 102 Advanced Swimming (1)
KINA 103 Diving (1)
KINA 104 Water Polo (1)
KINA 105 Water Aerobics (1)
KINA 106 Beginning Scuba (1)
KINA 107 Advanced Scuba (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 137A Intermediate 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 149 Broomball (1)
KINA 150 Adaptive Aquatics (1)
KINA 151 Adaptive Physical Activity (1)
KINA 152 Softball (1)
KINA 153 Adaptive Aquatics II (1)
KINA 154 Beginning Ice Hockey (1)
KINA 155 Beginning Ice Skating (1)
KINA 156 Soccer (1)
KINA 157 Adaptive Physical Activity II (1)
KINA 158 Speedball (1)
KINA 159 Aikido (1)
KINA 160A Nordic Skiing (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 170 Latin Rhythms (1)
KINA 171 Adaptive Skiing/ Snowboarding (1)
KINA 174 Social Dance (1)
KINA 175 Snorkeling/Free Diving (1)
KINA 176 Horseback Riding (1)

Prerequisites for all "intermediate" or Part II courses; the corresponding course or consent of the instructor.

KINA 180A Varsity Men's Football (1)
KINA 180B Varsity Men's Basketball (1)
KINA 180C Varsity Men's Baseball (1)
KINA 180D Varsity Men's Swimming (1)
KINA 180E Varsity Men's Tennis (1)
KINA 180H Varsity Men's Soccer (1)
KINA 180J Varsity Men's Golf (1)
KINA 180K Varsity Men's Track and Field (1)
KINA 180M Varsity Men's Wrestling (1)
KINA 180N Varsity Men's Lacrosse (1)
KINA 180P Varsity Men's Cross Country (1)
KINA 180Q Varsity Men's Hockey (1)
KINA 181B Varsity Women's Basketball (1)
KINA 181D Varsity Women's Swimming (1)
KINA 181E Varsity Women's Tennis (1)

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KINA 181F Varsity Women's Volleyball (1)
KINA 181G Varsity Women's Softball (1)
KINA 181H Varsity Women's Soccer (1)
KINA 181J Varsity Women's Golf (1)
KINA 181K Varsity Women's Track & Field (1)
KINA 181N Varsity Women's Lacrosse (1)
KINA 181P Varsity Women's Cross Country (1)
KINA 182A Varsity Coed Cheerleading (1)
KINA 182B Varsity Coed Cycling (1)
KINA 182C Varsity Coed Rodeo (1)
KINA 182D Varsity Coed Alpine Skiing (1)
KINA 182E Varsity Coed Nordic Skiing (1)

Only one varsity sport activity course at the 100 level may be used to meet the Wellness activity requirement.

Varsity athletics may not be used as elective credit.

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 195 Independent Study (1-3)

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. Prerequisite: KINE 100.

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.

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 basic 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)
Knowledge and skills required towards certification in lifeguard training.

KINE 251 Water Safety Instructor Course (3)
Instructional content (scope and sequence) and teaching methodology related to various aquatic activities.

KINE 252 Principles of Evaluation and Assessment (3)
Introduction to the principles and process of evaluation and assessment. Techniques for general evaluations, and head injuries. Prerequisite: KINE 234 or consent of instructor.

KINE 253 Fundamentals of Clinical Athletic Training (2)
Fundamental athletic training skills with concentration on injury prevention, acute injury management, and modalities. Prerequisite: Admission into the Athletic Training Education Program.

KINE 256 Methods of Creative Play, Dance, Gymnastics, and Literacy (3)
Instructional content (scope and sequence) and teaching methodology related to creative play, dance, gymnastics and literacy activities. Prerequisite: KINE 211 or KINE 214.

KINE 260 School Health Education (3)
School health issues. Emphasis on development of proper health attitudes and practices, teaching methodology, and application of health knowledge and practice in school and public health situations. Prerequisite: KINE 100.

KINE 265 First Aid and CPR/AED for the Health Care Provider (3)
Knowledge and skills required to meet the needs of first aid and CPR situations that lead to obtaining valid First Aid and CPR/AED for the Health Care Provider.

KINE 296 Topics (1-3)

KINE 297 Practicum (1-2)
Work-oriented instruction involving the implementation of classroom or laboratory experience under the direct supervision of a faculty member.

KINE 301 Health and Fitness Assessment (3)
Health and fitness testing and evaluation for children, athletes, and adults of all ages and abilities. Statistical techniques for exercise testing analyses. Prerequisite: KINE 213.

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)
Analysis of joint movement and muscular involvement during physical activity. Prerequisites: BIOL 209, 209L, KINE 200.

KINE 320 Methods of Teaching Physical Education in Elementary Schools (3)
Exploration of the physical education content and teaching methods appropriate for elementary school education. Prerequisite: KINE 256 and EDUC 211, or consent of instructor.

KINE 321 Physical Activity and Health in the Classroom (3)
Integration of health and physical activity concepts in the gym and classroom. For education majors.

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. Prerequisite: KINE 200.

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 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 Laboratory (1)
Application of mechanical principles and anatomical structure to human movement using quantitative analysis methods. Prerequisites: BIOL 209/209L and KINE 309.

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 Advanced Strength and Conditioning (3)
Emphasis on strength and conditioning program design and considerations based on activity and sport type. Prerequisites: KINA 128 or KINA 180-193, and KINE 303/303L.

KINE 404 Clinical Exercise Physiology and Advanced Exercise Prescription (3)
Emphasis on clinical risk stratification for conducting health and fitness assessments and exercise program design for healthy individuals and individuals with medically controlled disease. Prerequisites: KINE 303 and 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

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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: KINE 256 and EDUC 211, or consent of instructor.

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 213.

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.

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)
Capstone research experience with a formal manuscript and presentation. Topic, methods, and writing are to be guided and approved by a faculty member. Prerequisite: KINE 303, Senior standing, and consent of instructor.

KINE 494 Kinesiology Senior Seminar (1)
Discussion and research of current issues in kinesiology and exercise physiology. Prerequisite: Senior status.

KINE 494A Sport Management Senior Seminar (1)
Discussion and research of current issues in sport management.

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 Injury Management 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.

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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.

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 or CISB 241.

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 (1-9)
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 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

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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. Prerequisite: Permission of instructor.

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 studied 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 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 or CISB 241, 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 CMU. 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 and MASS 142, or consent of instructor.

MASS 196 Topics (1-3)

MASS 213 Introduction to Media Writing and Reporting (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 315A Specialized Writing for Media: Science (3)
Speciality writing about Science for various media platforms. Prerequisite: MASS 213.

MASS 315B Specialized Writing for Media: Sports (3)
Specialized writing about Sports for various media platforms. Prerequisite: MASS 213.

MASS 315C Specialized Writing for Media: Health (3)
Specialty writing about Health for various media platforms. Prerequisite: MASS 213.

MASS 315D Specialized Writing for Media: Crime (3)
Specialty writing about Crime for various media platforms. Prerequisite: MASS 213.

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 387 Structured Research (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 53.

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 CMU 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 Advanced Media Writing and Reporting (3)
Development of abilities to interview, research public records, report facts fairly, and write under deadline pressure. 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: DEVELOPMENTAL (MATC)

MATC 090 Introductory Algebra (4)
Introduction to algebra with a review of basic arithmetic. Includes decimals, fractions, percentage, ratio, proportion, signed numbers, algebraic expressions, factoring, exponents and radicals, linear equations, functions and graphs. Prerequisite: Accuplacer score of 45-60.

MATC 091 Intermediate Algebra (4)
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: MATC 090 or equivalent, or appropriate Accuplacer score.

MATHEMATICS (MATH)

Graphic calculator is recommended or required for several mathematics courses. See department for recommended models. In order to take any of the following mathematics courses, each listed prerequisite (or an equivalent course) must be completed with a grade of "C" or better. The instructor may waive the prerequisite.

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 107 Career Math (3)
Covers material designed for career technical or general studies students who need to study particular mathematical topics. Topics include measurement, algebra, geometry, trigonometry, graphs, and/or finance. These are presented on an introductory level and the emphasis is on applications. Prerequisite: MATH 030 (Grade of C or better) or assessment.

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 135 Engineering Calculus I (4)
Introduction to differentiation and integration of functions of a single variable. Emphasis on computational aspects. Includes functions, limits, continuity, differentiation, related rates, optimization problems, graphing, integration and applications. Prerequisite: MATH 119, or appropriate mathematics placement score.

MATH 136 Engineering Calculus II (4)
Continuation of MATH 135 Engineering Calculus I. Includes techniques of integration, trigonometric and hyperbolic functions, inverse, logarithmic and exponential functions, sequences, series, conic sections, polar coordinates and parametric equations. Prerequisite: MATH 135 or MATH 151.

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,

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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 or 136.

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 or MATH 136.

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. 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 or MATH 136.

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 or MATH 136.

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 or MATH 136, 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 or MATH 136, and 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 389 Explorations in Mathematics for Elementary Educators (1)
Broadening of future elementary educators' exposure to, and understanding of, diverse fields of mathematics through directed readings, analysis, and discussion. Prerequisites: MATH 301 and consent of instructor.

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 415 Abstract Algebra for Secondary Education (3)
In-depth study of the algebra underlying the secondary school mathematics. Particular focus on: elementary number theory, modular arithmetic, integral domains, theory of polynomials, fields, and groups. Prerequisites: MATH 240 and one of the following: MATH 310, MATH 325, or MATH 352.

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.

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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 LAB TECHNICIAN (MLTP)

MLTP 101 Phlebotomy (3)
Orientation to the clinical lab areas and workflow. Emphasis on venipuncture and dermal collections. Skills necessary for limiting pre-analytic errors with sample collections and processing. Knowledge of POC testing, patient collection instructions, send out testing and informatics. Review of regulatory, ethical and legal issues, healthcare delivery system, certification and licensure, organ systems, basic medical terminology, infection prevention, and professionalism. Corequisite: MLTP 102.

MLTP 102 Applied Phlebotomy (2)
Clinical laboratory experience at an affiliated site. Application of knowledge and skills to venipuncture and dermal collections, sample processing, POC testing, patient collection instructions, send-out testing, informatics, OSHA practices and phlebotomist professionalism are included. Corequisite: MLTP 101.

MLTP 132 Clinical Hematology and Coagulation (3)
Introduction to the theory and practical application of hematology and hemostasis as it relates to the medical laboratory. Bone marrow, blood cell formation, hemoglobin structure and synthesis, cell function and morphology, and coagulation are explored. Correlation of test results with normal results, blood cell disorders and clotting abnormalities emphasized. Laboratory techniques, instrumentation, and quality assurance in the hematology/hemostasis lab. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, and MLTP 102. Corequisites: MLTP 132L, MLTP 141/141L, MLTP 232/232L, MLTP 242/242L, and MLTP 275.

MLTP 132L Clinical Hematology and Coagulation Lab (1)
Introduction to the theory and practical application of hematology and hemostasis systems as it relates to the medical laboratory. Bone marrow, blood cell formation, hemoglobin structure and synthesis, cell function and morphology, and coagulation are explored. Correlation of test results with normal results, blood cell disorders and clotting abnormalities emphasized. Laboratory techniques, instrumentation, and quality assurance in the hematology/hemostasis lab. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, and MLTP 102. Corequisites: MLTP 132, MLTP 141/141L, MLTP 232/232L, MLTP 242/242L, and MLTP 275.

MLTP 138 Clinical Immunology (2)
Fundamentals and procedures of the immune defenses as it relates to medical laboratory testing; innate and adaptive immune responses, deficiencies, autoimmunity, hypersensitivity and tissue transplantation. Exploration of serologic techniques and instrumentation in the detection and diagnoses of viral illness, immune related diseases and its applications in immunohematology. Introduction to theories and principles of molecular testing methds. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, and MLTP 102. Corequisites: MLTP 138L, MLTP 142/142L, and MLTP 231/231L.

MLTP 138L Clinical Immunology Lab (1)
Fundamentals and procedures of the immune defenses as it relates to medical laboratory testing; innate and adaptive immune responses, deficiencies, autoimmunity, hypersensitivity and tissue transplantation. Exploration of serologic techniques and instrumentation in the detection and diagnoses of viral illness, immune related diseases and its applications in immunohematology. Introduction to theories and principles of molecular testing methds. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, and MLTP 102. Corequisites: MLTP 138, MLTP 142/142L, and MLTP 231/231L.

MLTP 141 Clinical Immunohematology (2)
Theoretical principles and procedures in immunohematology and application in the medical laboratory. Blood banking procedures and potential problems in blood bank testing relative to antibody identification, compatibility testing, transfusion reactions and maternal/neonatal screening for hemolytic disease of the newborn. Prerequisites: BIOL 209/209l, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, MLTP 102, MLTP 138/138L, MLTP 142/142L, and MLTP 231/231L. Corerequisites: MLTP 141L, MLTP 132/132L, MLTP 232/232L, MLTP 242/242L, and MLTP 275.

MLTP 141L Clinical Immunohematology Lab (1)
Theoretical principles and procedures in immunohematology and application in the medical laboratory. Blood banking procedures and potential problems in blood bank testing relative to antibody identification, compatibility testing, transfusion reactions and maternal/neonatal screening for hemolytic disease of the newborn. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, MLTP 102, MLTP 138/138L, MLTP 142/142L, and MLTP 231/231L. Corequisites: MLTP 141, MLTP 132/132L, MLTP 232/232L, MLTP 242/242L, and MLTP 275.

MLTP 142 Clinical Microscopy (2)
Introduction to microscopy in the medical laboratory. Emphasis on kidney function and urine formation: examination of the physical, chemical and microscopic components of urine. Body fluid analysis of feces, seminal, vaginal, amniotic, cerebrospinal, serous, and synovial fluids. Critical analysis and problem solving with regards to pre-analytic, analytic and post-analytic variables in sample testing. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, and MLTP 102. Corequisites: MLTP 138/138L, MLTP 142L, and MLTP 231/231L.

MLTP 142L Clinical Microscopy Lab (1)
Introduction to microscopy in the medical laboratory. Emphasis on kidney function and urine formation: examination of the physical, chemical and microscopic components of urine. Body fluid analysis of feces, seminal, vaginal, amniotic, cerebrospinal, serous, and synovial fluids. Critical analysis and problem solving with regards to pre-analytic, analytic and post-analytic variables in sample testing. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, and MLTP 102. Corequisites: MLTP 138/138L, MLTP 142, and MLTP 231/231L.

MLTP 180 Applied Immunohematology (3)
Clinical laboratory experience in the principles and procedures of immunohematology at an affiliated site. It is an online supported, off-campus clinical laboratory experience taught by clinical faculty. Emphasis is on the application of knowledge and technical skills to clinical testing, methodology, instrumentation, quality control, correlation of laboratory data with pathophysiology, OSHA practices and medical laboratory technician professionalism are included. Prerequisites: MLTP 132/132L, MLTP 141/141L, MLTP 232/232L, MLTP 242/242L, and MLTP 275, Corequisites: MLTP 182, MLTP 250, MLTP 252, and MLTP 253.

MLTP 182 Applied Hematology and Body Fluids (4)
Clinical laboratory experience in the principles and procedures of hematology, hemostasis, urinalysis and body fluids at an affiliated site. It is an on-line supported, off-campus clinical laboratory experience taught by clinical faculty. Emphasis is on the application of knowledge and technical skills to clinical testing, methodology, instrumentation, quality control, correlation of laboratory data with pathophysiology, OSHA practices and medical laboratory technician professionalism are included. Prerequisites: MLTP 132/132L, MLTP 141/141L, MLTP 232/232L, MLTP 242/242L, and MLTP 275. Corequisites: MLTP 180, MLTP 250, MLTP 252, and MLTP 253.

MLTP 231 Clinical Microbiology I (3)
Study of normal flora and pathogenic microorganisms. Methods for recovery, identification of pathogens, culture techniques, procedures, antibiotic testing, automation and interpretation of clinical data. Emphasis on clinical specimens, testing algorithms and data correlation including diagnostics, public health, safety and quality control. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, and MLTP 102. Corequisites: MLTP 138/138L, MLTP 142/142L, and MLTP 231L.

MLTP 231L Clinical Microbiology I Lab (1)
Study of normal flora and pathogenic microorganisms. Methods for recovery, identification of pathogens, culture techniques, procedures, antibiotic testing, automation and interpretation of clinical data. Emphasis on clinical specimens, testing algorithms and data correlation including diagnostics, public health, safety and quality control. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, and MLTP 102. Corequisites: MLTP 138/138L, MLTP 142/142L, and MLTP 231.

MLTP 232 Clinical Microbiology II (2)
Introduction to basic laboratory identification and classification of medically significant isolates in mycology, parasitology and virology. Laboratory safety, specimen selection and processing, isolation methods, immunologic diagnosis and treatment. Epidemiology and pathogenesis of mycosis, parasitic and viral infections are explored. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, MLTP 102, MLTP 138/138L, MLTP 142/142L, and MLTP 231/231L. Corequisites: MLTP 232L, MLTP 132/132L, MLTP 141/141L, MLTP 242/242L, and MLTP 275.

MLTP 232L Clinical Microbiology II Lab (1)
Introduction to basic laboratory identification and classification of medically significant isolates in mycology, parasitology and virology. Laboratory safety, speciment selection and processing, isolation methods, immunologic diagnosis and treatment. Epidemiology and pathogenesis of mycosis, parasitic and viral infections are explored. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, MLTP 102, MLTP 138/138L, MLTP 142/142L, and MLTP 231/231L. Corequisites: MLTP 232, MLTP 132/132L, MLTP 141/141L, MLTP 242/242L, and MLTP 275.

MLTP 242 Clinical Chemistry (3)
Application of human pathophysiology and how it relates to laboratory testing. Cardiovascular disease, kidney function, acid-base metabolism, liver, bone, carbohydrate disorders, endocrine, malignancy, and exogenous substances. Exploration of measurement methodologies, instrumentation, reagents and reactions, standards and control usage in qualtiy assurance. Critical analysis and problem solving with regards to pre-analytic, analytic and post-analytic variables in sample testing. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, MLTP 102, MLTP 138/138L, MLTP 142/142L, MLTP 231/231L. Corequisites: MLTP 242L, MLTP 132/132L, MLTP 141/141L, MLTP 232/232L, and MLTP 275.

MLTP 242L Clinical Chemistry Lab (1)
Application of human pathophysiology and how it relates to laboratory testing. Cardiovascular disease, kidney function, acid-base metabolism, liver, bone, carbohydrate disorders, endocrine,

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malignancy, and exogenous substances. Exploration of measurement methodologies: instrumentation, reagents and reactions, standards and control usage in quality assurance. Critical analysis and problem solving with regards to pre-analytic, analytic and post-analytic variables in sample testing. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, MLTP 102, MLTP 138/138L, MLTP 142/142L, and MLTP 231/231L. Corequisites: MLTP 242, MLTP 132/132L, MLTP 141/141L, MLTP 232/232L, and MLTP 275.

MLTP 250 Applied Chemistry and Serology (2)
Clinical laboratory experience in the principles and procedures of chemistry and serology at an affiliated site. It is an on-line supported, off-campus clinical laboratory experience taught by clinical faculty. Emphasis is on the application of knowledge and technical skills to clinical testing, methodology, instrumentation, quality control, correlation of laboratory data with pathophysiology, OSHA practices and medical laboratory technician professionalism are included. Prerequisites: MLTP 132/132L, MLTP 141/141L, MLTP 232/232L, MLTP 242/242L, and MLTP 275. Corequisites: MLTP 180, MLTP 182, MLTP 252, MLTP 253.

MLTP 252 Applied Microbiology (4)
Clinical laboratory experience in the principles and procedures of clinical microbiology at an affiliated site. It is an on-line supported, off-campus clinical laboratory experience taught by clinical faculty. Emphasis is on the application of knowledge and technical skills to clinical testing, methodology, instrumentation, quality control, correlation of laboratory data with pathophysiology, OSHA practices and medical laboratory technician professionalism are included. Prerequisites: MLTP 132/132L, MLTP 141/141L, MLTP 232/232L, MLTP 242/242L, and MLTP 275. Corequisites: MLTP 180, MLTP 182, MLTP 250, and MLTP 253.

MLTP 253 Certification Exam Review (1)
Review of key principles and content in preparation for national certification examination. Prerequisites: MLTP 132/132L, MLTP 141/141L, MLTP 232/232L, MLTP 242/242L, and MLTP 275. Corequisites: MLTP 180, MLTP 182, MLTP 250, MLTP 252.

MLTP 275 Capstone Seminar (1)
Preparation for clinical internships. Conflict resolution, communication skills, professional behavior in the workplace, resume writing and interview skills. Prerequisites: BIOL 209/209L, BIOL 210/210L, CHEM 121/121L or CHEM 131/131L, MLTP 101, MLTP 102, MLTP 138/138L, MLTP 142/142L, and MLTP 231/231L. Corequisites: MLTP 132/132L, MLTP 141/141L, MLTP 232/232L, and MLTP 242/242L.

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 Digital Image Editing (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 Animatics and Storyboarding (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 Beginning 3D Animation (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 Digital Compositing (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 196 Topics (1-3)

MGDA 220 3D Animation-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-Character Design (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 270 Advanced 3D Animation (3)
Addresses advanced concepts of 3D animation including: workflow, lighting, cameras, keyframing, textures, and rendering. Focusing on elaborate scene design, texturing, and lighting set-up. In-depth concepts on curve editor, dope sheet, rendering techniques, and advanced material development and usage.

MGDA 292 Capstone (3)
Demonstrated culmination of learning within given program of study. Taking an animation from beginning concept, storyboard to end of production.

MGDA 296 Topics (1-3)

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

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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 120 Class Piano for Non Majors (2)
MUSA 121 Class Piano for Non Majors (2)
Open to all students (no prerequisites or corequisites), but recommended specifically for students who have little or no training in piano and are not music (or music theatre) majors or minors. Introductory piano proficiency (rudimentary note reading, music vocabulary, technique, aural skills, theory, and creative application of musical skills).

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)
Recommended for music majors, music minors and music theatre majors who are deficient in the piano proficiency skills that are required by their programs of study. Application of scales, chords, transposition, harmonization, sight-reading and development of repertory at the keyboard.

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 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 Pedagogy 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 Pedagogy 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 Pedagogy 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 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 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.

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

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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 147, 247, 347, 447 Marching Band (0,1)
Rehearsal and presentation of musical and physical performance proficiencies. Specific skills associated with self-discipline, leadership, and individual and ensemble performance are developed. Advanced practice in physical alignment, balance, endurance, flexibility, and strength in technical competency. Available to all university students. Offered every fall semester. Monday/Wednesday/Friday 6:00-8:00 p.m., football practice field. Audition or consent of instructor required. Previous band experience highly recommended. Only MUSP 147 counts as a KINA activity credit.

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 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/ Presentation (1,2)
Preparation and successful completion of senior-level recital/presentation in the student's concentration. Recital/ presentation must be approved by the music faculty and given during the semester in which the student is registered for this course. A music recital is required for Performance and Music Education majors and must include scholarly program notes (required for the official printed senior recital program) covering historical aspects, analytical issues, and/or performance considerations of the recital repertory. Students in the Liberal Arts or Elective Studies in Business programs may likewise present recital or, alternatively, may elect to give a faculty-approved "capstone presentation" (e.g. lecture/ recital; lecture/demonstration; or other presentation of creative work such as video, original compositions, arrangements, etc.). Performance majors take this course for two credits; all other music majors take this course for one credit.

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)

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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. Corequisite: NURS 105L.

NURS 105L Nursing IV Certification(1)
Introduction to theoretical and clinical skills essential for IV certification. Corequisites: NURS 106/106L. Prerequisites: BIOL 209/209L, BIOL 210/210L, ENGL 111, ENGL 112, PSYC 233.

NURS 106 Fundamental Medical Surgical Concepts I (3)
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. Corequisite: NURS 106L.

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. Corequisite: NURS 106.

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 109 Introduction to Mental Health Nursing (1)
NURS 109L Introduction to Mental Health Nursing Laboratory (1)
Fundamental knowledge of mental health and illness from a holistic perspective. Specific experiences provide opportunities to experience the practice of nursing with a mental health focus. Prerequisites: NURS 101, NURS 105L, NURS 106/106L, NURS 107/107L, and NURS 112.

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 105L, NURS 106/106L, NURS 107/107L, 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 105L, NURS 101, NURS 106/106L, NURS 107/107L, and NURS 112.

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 105L, 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 105L, NURS 101, NURS 106/106L, NURS 107/107L, NURS 108/108L, and NURS 112. Corequisite: NURS 172L.

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 105L, NURS 101, NURS 106/106L, NURS 107/107L, and NURS 112. Corequisite: NURS 172.

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 theoretical foundations of nursing in the areas of communication, nursing process and health care needs. Economic issues examined. Important interpersonal and psychomotor skills developed in a variety of settings. 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 knowledge necessary for completing an adult health assessment. History taking and physical assessment skills utilized to develop appropriate interventions designed to assist patients with health promotion and lifestyle changes. Explores principles of health promotion through the life span in a variety of settings. 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. Corequisite: NURS 288.

NURS 210 Nursing Care of Complex Obstetrical and Pediatric Clients (3)
[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. Corequisite: NURS 210L

NURS 210L Nursing Care of Complex Obstetrical and Pediatric Clients Laboratory (1)
Prepares the professional nurse to comprehend and apply advanced concepts in the 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 prenatal experience and altered functioning, special needs and disease process 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 and critical thinking skills are integrated throughout the course. Theoretical content is applied in acute care and community clinical settings. Prerequisites: NURS 200, NURS 206/206L, NURS 211/211L, NURS 286, and NURS 288. Corequisites: NURS 210, NURS 216/216L, and NURS 289.

NURS 211 Nursing Care of the Psychiatric Client (3)
NURS 211L Nursing Care of the Psychiatric Client Laboratory (1)
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,

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NURS 206, NURS 206L, NURS 286, and NURS 288. Corequisite: NURS 217.

NURS 216 Advanced Concepts of Medical Surgical Nursing II (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. Corequisite: NURS 216L

NURS 216L Advanced Concepts of Medical Surgical Nursing II Laboratory (3)
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. In addition to inpatient acute care patient units the student will rotate through the critical care areas of the health care facility. Prerequisites: NURS 200, NURS 206/206L, NURS 211/211L, NURS 217, NURS 286, and NURS 288. Corequisites: NURS 210/210L, NURS 216, and NURS 289.

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 220 Health Assessment and Promotion for the Nurse (3)
NURS 220L Health Assessment and Promotion for the Nurse Laboratory (1)
Apply knowledge necessary for completing a child, adult, and geriatric client health assessment. Use history taking and physical assessment skills to develop appropriate interventions designed to assist clients with health promotion and lifestyle changes. Apply principles of health promotion through the life span in a variety of settings. Prerequisites: acceptance into RN-BSN program or practicing RN with current license and permission of the instructor.

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: LPN license. Corequisites: NURS 200, 206/206L, and 288.

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 (2)
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 206/206L, NURS 211/211L, NURS 217, NURS 286, NURS 288. Corequisites: NURS 210/210L and NURS 216/216L.

NURS 300 Developing the Baccalaureate Role (3)
Designed to facilitate the transition from diploma or associate degree registered nurse to professional practice of nursing at the baccalaureate level. Development of leadership and management skills in the context of the dynamic field of health care including effective communication, resolution, critical thinking, management of resources and quality improvement. Focus on the role of nurse leader and manager as a safety using evidence based practice principles. Prerequisites for RN-BSN students: RN licensure and admission to RN-BSN program. All prerequisite general education course work for the BSN degree must be completed before starting the 200 level nursing courses.

NURS 301 Medical Surgical Process(4)
NURS 301L Medical-Surgical Nursing Laboratory (4)
Application of nursing process. Care of individuals and families experiencing deviations from usual levels of wellness from onset to resolution. Pathophysiological problems of moderate intensity and relative stability explored. Nursing process used to support the coping mechanisms of individuals and families to assist in the regaining and maintaining of optimal wellness. 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. Utilization of nursing process. Collect and analyze data to formulate and evaluate interventsion with families from diverse backgrounds. Selected learning experiences provide opportunities for development of cognitive, psychomotor and effective competencies essential to the care of both healthy and high-risk families through the lifespan. Prerequisites: NURS 201/201L, 202/202L, 203, 204. Corequisites: NURS 301/301L, 303.

NURS 303 Professional Development (2)
Introduction to discipline of nursing. Emphasis on knowledge and skills related to professional evidence-based practice. Identification of legal and

ethical issues. Discussion of quality practice and beginning skills required in time management. Teaching-learning theories. The role of the professional in nursing. Examination of continuum of patient care provided by multi-disciplinary teams using current evidence-based practice as basis for nursing care. 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 Nursing (3)
NURS 313L Mental Health Nursing Laboratory (2)
Development of knowledge base of mental health and illness. Emphasis on development of interpersonal skills in the use of the therapeutic relationship. Specific learning experiences provide opportunities to develop proficiency in the practice of psychiatric mental health nursing with diverse populations. 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 competencies needed to care for diverse childbearing family including preconception, prenatal, pregnancy antepartum and postpartum. High risk and complications of pregnancy addressed as well as critical issues of women's health care. Theoretical content applied in acute care and community settings. Prerequisites: NURS 301/301L, 302, 303, 304. Corequisites: NURS 313/313L, 315/315L.

NURS 315 Pediatric Nursing (2)
NURS 315L Pediatric Nursing Laboratory (1)
Emphasis on growth and developmentally appropriate management of health and illness related needs of the child within the family. Patho-psychological and psycho-social dysfunctions of children and adolescents explored. Nursing process used to systematically gather and analyze data and formulate interventions. 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 Population Health Nursing (2)
NURS 403L Population Health Nursing Laboratory (1)
Theoretical basis for nursing populations and community aggregates. Analyze health of populations from a macro system perspective. Assess health of, plan interventions for populations. Assess efficacy of these interventions and consider the effect of policy and finance on the health of these populations. Population risk reduction will be used to develop nursing interventions for high-risk aggregates. Application of course content will be demonstrated in a concurrent clinical course. Prerequisites: NURS 313/313L, 314/314L, 315/315L.

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)
Emphasis on the assessment of the outcomes of health promotion of health promotion and health care interventions. Research questions relevant to clinical practice developed, with projects presented at the poster presentation at the end of the semester. Prerequisite: STAT 200. Corequisites: NURS 403/403L, and NURS 406/406L.

NURS 408 Health Information Systems (3)
Explores the use of information systems in health care and nursing practice. Examines current trends and issues in using, designing, and implementing heath care information systems, healthcare information management, decision support and knowledge management applications in the context of challenges facing healthcare organizations today. Explores legal and ethical issues as related to the protection of the privacy, confidentiality, and security of information in health care environments, utility of wide array of personal health information management and social networking tools in communicating healthrelated information. Prerequisites: RN degree at the associate or diploma level; permission of instructor; application in to HITS program.

NURS 409 Quality Assessment and Improvement in Health Care Settings (3)
Review of outcomes-based quality assessment and improvement methods. Focuses on techniques of measuring quality of care, customer satisfaction, and safety. Implementation of quality management programs, and creating a culture supporting adherence to best practices and standards. Prerequisite: permission of instructor.

NURS 410 Public and Population Health (2)
NURS 410L Public and Population Health Laboratory (1)
Theoretical basis for nursing population and community aggregates. Analyze health of population from a macro-system perspective. Perspective utilized to assess the health of and plan interventions for populations. Evaluate efficacy of these interventions and consider the effect of policy and finance on the health of these populations. Population risk reduction used to develop nursing interventions for high-risk aggregates. Application of course content will be demonstrated in the concurrent clinical course. Corequisite: NURS 410. Prerequisites: NURS 220/220L.

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NURS 411 Nursing Leadership (2)
NURS 411L Nursing Leadership Laboratory (1)
Leadership and management theory utilized in development of characteristics of a nurse leader. Role of the professional nurse as change agent in shaping health care for the future is explored. Prerequisites: NURS 403/403L, 406/406L, 407. Corequisite: NURS 412L, NURS 415, and NURS 416.

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 413 Community Health Micro Systems (2)
NURS 413L Community Health Micro Systems Laboratory (1)
Theoretical basis for nursing individuals and families across community settings evaluated and analyzed. Analyze multiple roles available to nurses in the community. Assessing, planning, and evaluating care for community individuals, families and micrsystems. Applications of transitions of care and financing concepts in the community care setting. Application of course content will be demonstrated in concurrent clinical course. Prerequisites: NURS 313/313L, NURS 314/314L, and NURS 315/315L.

NURS 415 Business of Health Care(2)
Appraisal of financial indicators on impact of health outcomes explored in the context of the professional's ability to provide quality care to a diverse patient population. Prerequisites: NURS 403/403L, 406/406L, 407. Corequisites: NURS 411/411L, 4/12L, 416.

NURS 416 Transition to Professional Nursing (2)
Exploration of core competencies for a BSN. Four core competencies: Communication, Assessment, Technical Skills, and Critical Thinking. Competencies examined from the perspective of a graduating nurse about to transition into the professional world of nursing. Prerequisites: NURS 403/403L, 406/406L, 407. Corequisites: NURS 411/411L, 412L, 415.

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 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 418 Gerontological Nursing and Chronic Illness (2)
Evaluate current key clinical information and issues central to caring for the highly specialized physiological and psycho-social needs of older adults. Review of the current financial, social, political, and cultural issues that affect nursing care for the elderly explored through a geriatric nursing curriculum in a scientifically sound, holistic process to provide care to this vulnerable popultation. Prerequisites: NURS 403/403L and NURS 401. Corequisites: NURS 406, NURS 413, and NURS 422.

NURS 420 Global Health (3)
This is a multidimensional course for nursing students who want to broaden their understanding of health care in the global community The course involves pre-trip seminars, travel to a country of focus and post-trip sessions. Attendance is required at all sessions. Level Two nursing preparation recommended. The pre-trip seminars are conducted by the lead faculty and guest speakers. Students will prepare and present on topics during the seminars and will have opportunities to develop leadership skills. Within the focus country, students will travel as a group, meeting local health care professionals, student nurses, and nursing faculty. Students will volunteer alongside local providers, delivering care within their scope of practice and the boundaries delineated by the Ministry of Health. Opportunities to develop critical thinking skills, the nursing process and culturally sensitive care will be part of the pre-trip and in-country experiences. A post-trip seminar and a presentation to the community are also mandatory.

NURS 422 Nursing Roles in the Community (2)
NURS 422L Nursing Roles in the Community Laboratory (1)
Theoretical basis for nursing individuals and families across community settings evaluated and analyzed. Analyze multiple roles available to nurses in the community. Assessing, planning, and evaluation of care for community individuals, families, and microsystems. Transitions of care analyzed for outcomes, policy and financial impact on health care systems. Prerequisites: NURS 220/220L.

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 (2)
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. Prerequisites: Prior RN degree and licensure, and current enrollment in the BSN program.

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 concent, 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 502 Health Information Systems (3)
Explores the use of information systems in health care and nursing practice. Examines current trends and issues in using, designing, and implementing health care information systems, healthcare information management, decision support and knowledge management applications in the context of challenges facing healthcare organizations today. Explores legal and ethical issues as related to the protection of the privacy, confidentiality, and security of information in health care environments, utility of a wide array of personal health information management and social networking tools in communicating health-related information. Prerequisite: Bachelor of Science in Nursing degree.

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 managment 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 505 Quality Assessment and Improvement in Health Care Settings (3)
Review of outcomes-based quality assessment and improvement methods. Focuses on techniques of measuring quality of care, customer satisfaction, and safety. Implementation of quality management programs, and creating a culture supporting adherence to best practices and standards.

NURS 525 Pathophysiologic Concepts (3)
Advanced concepts in pathophysiological process and disease/disorder management. For the advanced practice nurse. Includes evidenced-based practice in assessment, disease management, diagnostic testing and treatment of selected body systems and disease processes across the lifespan.

NURS 526 Pharmacology for Advanced Nurse Practitioners (3)
Major drug classifications and the nursing management required for drug therapy. Core drug knowledge (pharmacotherapeutics, pharmacokinetics, pharmacodynamics, contraindications and precautions, adverse effects, and drug interactions) presented. Patient variables (health status, lifespan and gender, lifestyle, diet, and habits, environment, and culture) and their use in accurate patient assessment in drug therapy presented. Emphasizes importance of nursing management in drug therapy (maximizing therapeutic effect, minimizing adverse effects, and patient and family education). Foundation knowledge of basic pharmacology necessary for advanced prescriptive authority in the State of Colorado. Prerequisite: Bachelor of Science in Nursing.

NURS 527 Advanced Health Assessment (3)
Focused and comprehensive health assessment of clients across the lifespan. Includes diverse populations, biological, psychological, sociological, spiritual, and cultural aspects. Diagnostic reasoning emphasized as the primary means of collecting and analyzing data from client history, physical examination, and diagnostic procedures. 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

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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.

NURS 540 Teaching Strategies for the Nurse Educator (3)
Theories, principles, and application of evidence-based teaching strategies that promote proficiency in teaching and learning. Learning environment development that supports nursing student success across a variety of settings from clinical to classroom. Integration of didactic learning with an educational practicum. Prerequisite: Bachelor of Science in Nursing.

NURS 545 Curriculum Design/ Evaluation (3)
Functional approaches to curriculum design and educational programs in nursing. Philosophical foundations of nursing education and curriculum development. Models for curriculum design and development of educational program models with the context of organizational mission and philosophy, philosophical or theoretical frameworks, and desired learning outcomes and competencies. Prerequisite: Bachelor of Science in Nursing degree.

NURS 575 Capstone Project (3)
Development of capstone project demonstrates synthesis of graduate work and establishes groundwork for future scholarship. Capstone project reflects the student's clinical practice setting with a selected population group. Culminates in a formal paper and presentation in an academic setting. Prerequisite: Bachelor of Science in Nursing degree.

NURS 580 Thesis (3)
Development of thesis. Synthesis of graduate work. Establishes groundwork for future scholarship. Topic chosen for thesis should reflect the student's nursing practice setting with a selected population group. Thesis project involves original research. Culminates in dissemination of findings in a formal paper to be submitted for publication. Prerequisite: Bachelor of Science in Nursing degree.

NURS 595 Independent Study (1-3)

NURS 600 Family Nurse Practitioner Issues (2)
Roles and responsibilities of the nurse practitioner in augmenting client health and health services. Examines the history of nurse practitioners, client relations, and legal and ethical considerations. Interdisciplinary teams, health policy formation and political strategies considered. Professional involvement and practice, leadership, collaboration and teamwork in various settings examined. Prerequisites: Bachelor of Science in Nursing, Master of Science in Nursing, or completion of 500-level coursework.

NURS 601 Primary Care of the Child/Adolescent (3)
Focuses on primary care of the child and adolescent, beginning with the newborn. Growth, nutrition, well client care and guidance, assessment, diagnosis and management of acute and chronic conditions in the client population. Culture and ethnic considerations, child development, family, environment theories and concepts integrated throughout the didactice and clinical components. Prerequisites: Bachelor of Science in Nursing, MSN or completion of 500-level coursework. Corerequisite: NURS 610.

NURS 602 Primary Care of the Adult (3)
Principles and issues relevant to Advance Practice Nursing in Primary Care. Emphasis on health care management of adult patients with stable chronic and/or multiple complex problems utilizing clinical relevant research and guidelines. Primary health care, including wellness counseling of healthy adults, management of acute and chronic conditions of adults, referral of conditions requiring management by other health professionals, and community implications related to the health of adults explored. Examines evidenced-based trends and issues in the health of adults. Explores health promotion research. Prerequisite: Bachelor of Science in Nursing, Master of Science in Nursing, or completion of 500-level coursework. Corerequisite: NURS 620.

NURS 603 Primary Care of the Elderly (2)
Primary care of older adults with complex geriatric conditions and issues impacting care across a variety of settings. Preparations to meet the medical, bio-psychosocial and functional needs for the aging person with acute and chronic illness through appropriate assessment, diagnostic and management activities. Prerequisite: Bachelor of Science in Nursing, Master of Science in Nursing, or completion of 500-level coursework. Corerequisite: NURS 630.

NURS 610 Clinical Practicum: Child/ Adolescent (2)
Application of theoretical concepts of primary care in care of children and adolescents. Integration of health assessment, pathophysiology, pharmacology, health promotion and disease prevention, chronic and acute illness management in clinical practice as an advanced practice nurse. Prerequisite: Bachelor of Science in Nursing, Master of Science in Nursing,or completion of 500-level coursework. Coursework: NURS 601.

NURS 620 Clinical Practicum: Adult (2)
Application of theoretical concepts of primary care of adults. Integration of health assessment, pathophysiology, pharmacology, health promotion and disease prevention, chronic and acute illness management in clinical practice. Prerequisite: Bachelor of Science in Nursing, Master of Science in Nursing, or completion of 500-level coursework. Corequisite: NURS 602.

NURS 625 Statistics for Health Sciences (3)
Basic knowledge and skills to effectively use biostatistics in different research design and data analysis, and to understand articles in related professional journals. Includes choosing correct statistical methods and study designs in nursing research and practice, descriptive statistics; probability distributions; estimation

and hypothesis testing, simple linear regression, introduction to analysis of variance and an introduction to statistical software packages. Prerequisite: Bachelor of Science in Nursing, Master of Science in Nursing, or completion of 500-level coursework.

NURS 626 Epidemiology (3)
Explores epidemiological concepts and biostatistics as applied to public health problems. Advanced clinical nursing practice. Emphasizes principles and methods of epidemiologic investigation, appropriate summaries and displays of data. Use of classical statistical approaches in measuring health of the population. Explores understanding the causes of poor health, screening, developing interventions for disease prevention and control. Improving health and reducing health disparities. Translating evidence into practice and evaluating the impact of policies and programs. Includes dynamic behavior of disease, usage of rates, ratios and proportions, epidemiologic study designs for investigating associations between risk factors and disease outcomes. Criteria for causal inferences, legal and ethical issues. Application of epidemiology in health services, screening, genetics, and environment policy presented. Prerequisite: Bachelor of Science in Nursing, Master of Science in Nursing or completion of 500-level coursework.

NURS 630 Clinical Practicum: Elderly (2)
Application of theoretical concepts of primary care in care of elderly. Integration of health assessment, pathophysiology, pharmacology, health promotion and disease prevention, chronic and acute illness management in clinical practice. Prerequisite: Bachelor of Science in Nursing, Master of Science in Nursing or completion of 500-level coursework.

NURS 640 Clinical Practicum: Rural Health Care (1)
Application of theoretical concepts of primary care in care of rural population groups. Integration of health assessment, pathophysiology, pharmacology, health promotion and disease prevention, chronic and acute illness management in clinical practices. Explores unique aspects of advanced practice nursing role in rural health care. Prerequisites: Bachelor of Science in Nursing, Master of Science in Nursing or completion of 500-level coursework; NURS 601, NURS 602, NURS 603, NURS 610, NURS 620, NURS 630.

NURS 650 Family Nurse Practitioner Preceptorship (4)
Focuses in-depth on the role of an FNP in the client-care setting with selected populations. Experience designed to integrate and synthesize preceding clinical and didactic course knowledge and skills, development of clinical management, leadership and interdisciplinary collaborative practice skills at an advanced competency level. The roles of an advanced practice nurse with an approved preceptor/mentor is practiced. Prerequisites: Bachelor of Science in Nursing, Master of Science in Nursing or completion of 500-level coursework; NURS 601, NURS 602, NURS 603, NURS 610, NURS 620, NURS 630, NURS 640.

NURS 660 Transition into Advanced Nursing Practice (2)
Focuses on concepts of scope of practice, professional growth, role development, theory guided and evidenced based practice for the advanced practice nurse. Professional involvement and practice, leadership, teamwork, collaboration, legal, ethical, reimbursement, and role acquisition issues for advanced practice nurses. Prerequisites: Bachelor of Science in Nursing, Master of Science in Nursing or completion of 500-level coursework; NURS 650.

NURS 700 Evidence-Based Practice (3)
Preparations to discover, examine, and evaluate knowledge, theories, and creative approaches to health care. Skills to: a) identify research questions in practices; b) critically evaluate existing practice in the light of research findings; and c) develop strategies to incorporate research findings into the clinical setting. Prerequisite: Bachelor of Science in Nursing, Master of Science in Nursing or completion of 500-level coursework; NURS 650.

NURS 750 Capstone: EBP I (3)
Focuses on initial development of scholarly project proposal that demonstrates synthesis of doctoral work and lays the ground work for future scholarship. Emphasis on use of evidence to improve either practice or patient outcomes. Scholarly project reflects clinical immersion in a practice setting with a selected population group. Bachelor of Science in Nursing, Master of Science in Nursing or completion of 500-level coursework; NURS 650, NURS 700.

NURS 760 Capstone: EBP II (3)
Culmination of scholarly project includes translation of research into practice and the dissemination and integration of new knowledge into clinical practice as an advanced practice nurse. Evidence is generated through a practice setting to guide improvements in practice and outcomes of care. Prerequisites: Bachelor of Science in Nursing, Master of Science in Nursing, or completion of 500-level coursework; NURS 750.

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.

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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 120 Internet and Social Networking (3)
Enhance knowledge of the Internet and its resources. Individuals learn terminology in dealing with the Internet. Including data mining, search strings, privacy and copyright issues with information retrieved from the Internet. Explores searching the Internet and credibility of information obtained with searches. Emphasis on the impact, tools, trends, issues,and dangers of social networking for business. Covers the most popular social networks. Develop plans, procedures, and processes for using social networking effectively and efficiently in business. Helps students understand social media and social business innovation.

OFAD 125 Multimedia and Web Editing (3)
Equipment and technical considerations used in multimedia productions and the multimedia professions. Focuses on scanners, printers, digital cameras, and computers. Experiences in how technology is utilized for input and output in production and design projects. Overview of software and basic design principles will be explored. Provides tools used for designing and building web pages. Use of images, forms, frames, tables, templates, and layers will be covered.

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 (3)
Lecture/Lab. Preparation of business documents. Processing software. Increased document preparation proficiency includes beginning to advanced word processing techniques.

OFAD 201 Office Procedures (3)
Developments, technology, procedures, organization, and contemporary terminology used in effective office management. Essential coverage of video conferencing and event planning. 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 or instructor approval.

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 Voice Recognition and Business Editing (3)
Voice recognition technology in office simulations. Provides proofreading techniques and reviews spelling, punctuation, grammar, and word processing formats on various types of business documents. Creation of business documents using appropriate business vocabulary.

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.

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.

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 Desktop 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, contacts, tasks, journals, and notes.

OFAD 291 Service Learning (3-12)
Practical use of educational training through joint supervision of a participating business organization and a designated faculty member. Provides opportunity to supplement course work with practical work experience either on a paid or volunteer basis. Work experience must be related to educational program/ occupational objectives and requires designated faculty member approval. Provides opportunity of service to the community utilizing knowledge and skills acquired. Prerequisite: final semester or sophomore standing.

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-GTAH3 (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-GTAH3 (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 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'

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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)
Algebra-based introduction to classical mechanics and thermodynamics. Includes mechanics, energy and momentum conservation, thermodynamics and statistical mechanics. Extensive use of high school level algebra and trigonometry, mastery of these subjects required. 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)
Algebra-based introduction to classical electromagnetism, optics and modern physics. Detailed coverage of electrostatics, electric circuits, magnetism, electromagnetic waves, geometrical optics and wave optics. Topics from modern and atomic physics. Extensive use of algebra and trigonometry. Prerequisites: PHYS 111/111L, or PHYS 131/131L, with a grade of C or higher.

✓ PHYS 131 Fundamental Mechanics-GTSC1 (4)
✓ PHYS 131L Fundamental Mechanics Laboratory-GTSC1 (1)
Calculus-based introduction to classical mechanics. Detailed coverage of the kinematics and dynamics of linear and rotational motion using Newton's Laws, momentum and energy conservation. The mathematics of calculus and vectors is used throughout. For majors in the sciences and engineering. Prerequisite: MATH 151 or MATH 135 (either may be taken concurrently).

✓ PHYS 132 Electromagnetism and Optics-GTSC1 (4)
✓ PHYS 132L Electromagnetism and Optics Laboratory-GTSC1 (1)
Calculus-based introduction to classical electromagnetism and optics. Detailed coverage of electrostatics, electric circuits, magnetism, electromagnetic waves, geometrical optics and wave optics. The mathematics of calculus and vectors is used throughout. For majors in the sciences and engineering. Requires a mastery of the foundations of classical mechanics as covered in PHYS 131. Prerequisites: PHYS 131/131L, and MATH 152 or MATH 136 (either may be taken concurrently). A grade of C or higher in PHYS 131/131L is required.

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. Prerequisites: junior or senior status, or consent of instructor.

PHYS 311 Electromagnetic Theory I (3)
A mature study of electromagnetic fields. Electrostatics and magnetostatics presented. Special techniques, including multipole expansion of fields, analyzed. Electrodynamics introduced leading to Maxwell's equations. Prerequisites: PHYS 132/132L, and MATH 260 or MATH 236.

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. and MATH 260 or MATH 236.

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 advanced treatment of Newtonian dynamics, conservation laws, gravitation, and the Lagrangian and Hamiltonian formulations of dynamics. Topics may include central force motion, systems of particles, non-inertial reference frames, rigid bodies, oscillating systems, couple oscillations, and waves on a string. Prerequisites: PHYS 230, and MATH 260 or MATH 236.

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 or MATH 236.

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.

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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)
Foundation covering application of computational techniques to solving physical problems. Numerical integration, differentiation, and matrix methods covered. Techniques of solving various regular and partial differential equations studied. Application of discretizing numerical solutions for physical problem stressed. Turning analytic problems into solvable computational schemes. Data analysis and visualization covered. Familiarity with any programming language is required. For any Science, Engineering or Mathematics major. Prerequisites: MATH 260 or MATH 236, and PHYS 311 or PHYS 321 or PHYS 342 or instructor permission.

PHYS 472 Computational Physics II (3)
A continuation of PHYS 471. Advanced topics in solving partial differential equations and simulating physical systems using modern parallel computing covered. MPI, Open MP, and their applications to physical phenomenon on Linux workstations covered. Introduction to translating analytical problems to parallel computational problems Prerequisite: PHYS 471.

PHYS 473 Modern Optics (3)
Modern principles and applications of optics. Optical models including ray and wave optics presented. Laws of reflection and refraction studied within the context of both ray and wave optics. Reflectivity and transmissivity analyzed. Superposition and wave interference discussed. Diffraction theory used in a number of applications. Concludes with an introduction to lasers and quantum optics. Prerequisite: PHYS 311.

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 196 Topics (1-3)

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.

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 Electronics I (3)
Fundamentals of practical and theoretical DC and AC circuits. Application of basic entry skills and analysis/verification of theoretical results. Introduces the basic skills required by many careers in electronics and related fields. Operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes, and introducing basic digital concepts. Emphasis on common test instruments in troubleshooting, working on real-world and applicable projects. Lecture/lab format.

PROS 118 Electronics 2 (3)
Advanced DC, AC and digital circuitry. Analysis and verification of theoretical results with practical applications. Builds on PROS 117 Electronics 1 and covers advanced concepts of DC and AC circuits. Includes expanded treatment of power supplies, dual-supply rectifier circuits, and Zener diode, voltage regulators. Includes digital concepts. Emphasis on common test instruments in troubleshooting, working on real-world projects. Lecture/lab format. Prerequisite: PROS 117.

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

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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 290 Certification: (1)
Capstone certification preparation specifically addressing each emphasis and associated certifications. Addresses Certified Electronics Technician (CET) program and other certifications.

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 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: Declared major in Psychology, PSYC 150 and ENGL 112.

PSYC 202 APA Style of Writing for Psychology Minors (1)
APA writing format as foundation for further study in the psychology minor. Not intended for psychology majors. Prerequisites: PSYC 150, ENGL 112, and declared minor in psychology.

PSYC 216 Research Methods in Psychology (3)
PSYC 216L Research Methods in Psychology 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. Corequisite: PSYC 216L.

✓ **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 300 Health Psychology (3)
Health and psychology are intertwined in a variety of ways. This course examines what it means to be healthy and look at the connection between behavior and both physical health and illness and mental health and illness. Prerequisite: PSYC 150 or PSYC 233.

PSYC 308 Applied Ethics in Mental Health and Counseling (1)
Application of professional ethical principles and codes to mental health and health service settings.

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 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 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 215.

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. Prerequisite: PSYC 150.

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 411 Human Sexuality (3)
Study of the biological, psychological, and social bases and manifestations of human sexual behavior. Includes theory, research and diversity in sexuality, the biology of sex, gender development, sexual diseases, deviancy and coercion. Prerequisites: PSYC 150, STAT 215, and PSYC 216/216L.

PSYC 412 Industrial and Organizational Psychology (3)
Psychological principles applied to formal, productive organizations such as businesses, governments, and schools. Personnel selection, placement, training, 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. Prerequisites: PSYC 150, and good standing as a junior or above psychology major or permission of instructor.

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 216, 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: Junior or senior status, PSYC 150.

PSYC 435 Advanced Social Psychology (3)
Survey of theories and research in social psychology. Advanced topics in social psychology through readings and discussion on historical and current perspectives. May include self, person perception, attitudes, attributions, close relationships, social influence, and group conflict. Prerequisites: PSYC 150 and PSYC 320.

PSYC 495 Independent Study (1-3)

PSYC 496 Topics (1-3)

PSYCHOLOGY: COUNSELING (PSYP)

PSYP 305 Suicide Intervention Training (1)
Provides a clear and direct method to intervene with those at risk of suicide. Students learn to identify risk factors, develop safety plans, practice skills to intervene, and develop an understanding of resources available. This is a two day (16 hour) suicide intervention workshop.

PSYP 306 Applied Ethics in Mental Health and Counseling (1)
Application of professional ethical principles and codes to mental health and health service settings.

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

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will be discussed including life stages, transitions, midlife crisis, stress, and adjustments necessary for career development effectiveness. Prerequisites: PSYC 201 or consent of instructor.

PSYP 322 Multicultural Service Learning (3)
Exploration of multiculturalism through ethnography and community service field work. Prerequisite: PSYC 201.

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-V. Interview types will include counseling, intake, assessment, and diagnosis. Prerequisites: PSYC 201, 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.

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.

PADM 396 Topics (1-3)

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.

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.

PADM 495 Independent Study (1-3)

RADIOLOGICAL 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 Laboratory (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. 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.

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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 092 College Reading Studio(1)
This course is designed to offer supplemental support for students in reading intensive courses across the disciplines. Daily mini-lessons will be provided based on Ten Steps to Advanced College Reading Skills, and will follow with individual assistance with discipline-specific vocabulary from college texts. This is a corequisite with social science 100 discipline strands for students with Accuplacer scores of 62-79.

READ 096 Topics (1-3)

REAL ESTATE BROKER (REEB)

REEB 201 Real Estate Broker I (6)
Taught in conjunction with REEB 202 - Real Estate Broker 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 101 Introduction to Lesbian, Gay, Bisexual, and Transgender Studies (3)
Introduction to lesbian, gay, bisexual, and transgender studies. Exploration of LGBT studies as an academic field and consideration of the experience of being lesbian, gay, bisexual or transgender.

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 120 Technology and Society-GTSS3 (3)**
Overview of technological innovations and human societies throughout modern history. Emphasizes impacts of technology within a social, political, economic, and environmental context.

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 122 Americorps Field Placement II (3)
In-depth analysis, strategic planning, implementation and evaluation of community projects. This class shall give the students an opportunity to examine real issues in the community and become a part of the problem-solving process. Prerequisite: SOCI 121.

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 351 History of Ideas: Ancient and Medieval Periods (3)
The major ideas of man and society in ancient Greece and Rome with attention to social conditions influencing their development and transmission into the social thought of Medieval Europe.

SOCI 395 Independent Study (1-3)

SOCI 396 Topics (1-3)

SOCI 410 Death, Dying & Bereavement (3)
Provides an in-depth overview of the issues surrounding death, dying and bereavement. The social and psychological processes of death using interdisciplinary readings from psychology, sociology, anthropology, history, medicine and philosophy.

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.

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 210 Social Work for Diverse Populations (3)
Knowledge and skills necessary for social work practice with diverse populations. Explores issues of stereotypes, prejudice, discrimination and oppression. Examines cultural diversity in U.S. society and how to increase self-awareness related to worldviews and beliefs about diversity issues. Emphasis on empowerment of individuals and groups and on multicultural competence. Prerequisite: SOWK 150.

SOWK 296 Topics: (1-3)

SOWK 301 Child Welfare (3)
Signs and symptoms of abuse and neglect of children. Family dynamics in abuse and neglect, and programs of prevention and intervention. Explores foster care, adoptions, delinquency problems, poverty and homelessness, and related issues in child welfare. Examines the crime of human trafficking. Prerequisite: SOWK 150.

SOWK 308 Medical Social Work (3)
Explores interface of social work and patients' rights, medical decision-making, case management, process of diagnosis and treatment, palliative and end-of-life care, and the concept of health care consumer. Focus on the current health care system in the United State, the interface of health care and populations-at-risk, and role of the social worker in medical settings. Prerequisite: SOWK 150.

SOWK 311 Ethical Issues in Social Work (3)
Analysis of specific ethical dilemmas from personal, professional and policy perspectives. Focus on ethical issues common to the social work profession and on the NASW Code of Ethics. Utilize code of ethics as guide to decision making. Explore relationship between professional ethical issues and the development of social policy. Prerequisite: SOWK 150.

SOWK 320 Social Work Practices in Mental Health (3)
Practice models and methods of intervention for effective social work practice in mental health care. Includes the promotion of mental health, the prevention of mental illnesses, and delivery of psychosocial treatment and rehabilitation services. Prerequisite: SOWK 150.

✓ 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 53.

SOWK 330 Social Work for Diverse Populations (3)
Knowledge and skills necessary for social work practice with diverse populations.

SOWK 344 School Social Work (3)
Overview of social work practice in an educational setting. Cooperative work with school personnel in the identification, prevention and treatment of social, emotional and behavioral problems of children and intervention techniques with parents. Prerequisite: SOWK 150.

SOWK 350 Legal Aspects of Social Work (3)
Exploration of the roles of the social worker in the legal field. Legal terms, procedures, state and federal court systems studied. The legal aspects of protective services for children and adults, the child support laws and the juvenile justice system examined. Prerequisite: SOWK 150.

SOWK 365 Social Work Intervention Methods I (3)
Knowledge, values, and skills for multilevel (micro, mezzo, macro) general practices. Focuses on engaging clients in the helping process, interviewing skills, assessment tools, social histories, goal writing, termination and evaluation. Addresses professional ethics and values and applying systems and ecological frameworks to practice situations. Examines strengths-based assessments, the phases of the helping relationship, and the dynamics of change in interpersonal helping relationships, within a framework of social justice and diversity. Prerequisites: SOWK 150, SOWK 210, and SOWK 320. This course is only open to social majors who have been formally accepted into the BSW program.

SOWK 375 Social Work Intervention Methods II (3)
Examines generalist social work roles and techniques in group work practice. Building on interviewing and engagement skills presented in Intervention Methods I. Focuses on assessment, planning, and intervention with treatment and task groups. Emphasizes basic theory about groups and group process, demonstrates skills necessary for effective practice, explores leadership, group cohesion, and group dynamics. Uses of task and treatment groups in a broad range of settings with diverse client groups. Prerequisites: SOWK 150, SOWK 210, SOWK 320, and SOWK 365. This course is only open to social work majors who have been formally accepted into the BSW program.

SOWK 377 Spirituality and Social Work (3)
Overview of the knowledge, values, and skills to provide spiritually sensitive social work practice. Prepare generalist social work practitioners to work with clients and their families from a holistic framework (bio, psycho, social, cultural, spiritual) and with diversity and respect. Use of interview techniques, spirituality assessments, and strengths-based approaches. Prerequisites: SOWK 150.

SOWK 381 Gerontology and Social Work (3)
Overview of health aspects of aging in the United States. Explores theories of aging, social and health issues, family and caregiving dynamics, and end of life concerns. Prepares generalist social work practitioners to work with older clients and their families and with service delivery systems addressing the needs of this population. Prerequisite: SOWK 150.

SOWK 385 SW Intervention Methods III (3)
Emphasizes study of skills from a problem-solving strengths and empowerment perspective with organizations and community systems. Viewed as an integral component of a model for bringing about social change, especially at the mezzo and macro levels. Attention paid to developing processes of building constitutencies, mobilizing resources, networking, political participation, leadership development, and grassroots development. Introductory overview of strategies, tactics, and techniques of social change. Explores basic skills necessary to write effective grant proposals. Prerequisites: SOWK 150, SOWK 210, SOWK 320, SOWK 365, and SOWK 375. This course is only open to social work majors who have been formally accepted into the BSW program.

SOWK 387 Social Work Research Methods (3)
Provides an overview of the principles and methods of basic social work research. Explores qualitative and quantitative research methods and how to critically consume research studies and use research findings to strengthen social work practice. Explore how quality research can assist in making important decisions about the design and implementation of projects, programs, and policies that address the social needs of diverse groups. Create research instruments for numerous purposes (e.g. intake, assessment, client satisfaction, facilitating group services, etc.) Prerequisites: SOWK 150, SOWK 210, and SOWK. This course is only open to social work majors who have been formally accepted into the BSW program.

SOWK 394 Social Work Practicum Seminar I (1)
Discussion of practicum-related issues, professional development, and exploration of learning objectives in field practicum experiences. Requires regular reporting of field activities. Prerequisites: SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 385, and SOWK 387. Corequisite: SOWK 397. This course is only open to social work majors who have been formally accepted into the BSW program.

SOWK 396 Topics (1-3)

SOWK 397 Social Work Practicum I (5)
Involves 225 clock hours per semester. Opportunities to apply theories, techniques, and concepts through observation and participation in supervised activities. Assists in the understanding and achievement of learning objectives ini field practicum experiences. Prerequisites: SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 385, and SOWK 387. Corequisite: SOWK 394. This course is open only to social work majors who have been formally accepted into the BSW program.

SOWK 460 Social Welfare Policy (3)
Nature and development of American social policy. Includes history of current

structures of social welfare services, the role of policy in service delivery and analysis of current social policy issues including gender policy, homelessness, health care policy, domestic poverty, and child welfare policy. Provides an overview of social policy and legislation and the processes of influencing public policy. It links policy with social work practice. Prerequisites: SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 385, and SOWK 387.

SOWK 491 Directed Readings (1-5)
Student and/or faculty initiated special projects/independent study that explores some aspect of social work theory or practice such as: intervention methods, policy, research, populations-at-risk, values and ethics, aging, spirituality, child welfare, addictions, mental health, social and economic justice, and diversity *Restriction: Senior standing, instructor's permission and a plan for study. Prerequisites: SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, and SOWK 387.

SOWK 494 Social Work Practicum Seminar II (1)
Discussion of practicum-related issues, professional development, and exploration of learning objectives in field practicum experiences. Requires regular reporting of field activities. Prerequisites: SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 385, SOWK 387, SOWK 397, SOWK 394, and SOWK 406. Corequisite: SOWK 497

SOWK 497 Social Work Practicum II (5)
Involves 225 clock hours per semester. Provides students with opportunities to apply theories, techniques, and concepts through observation and participation in supervised activities. Assists students in the understanding and achievement of learning objectives in their field practicum experiences. Prerequisites: SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 385, SOWK 387, SOWK 397, SOWK 394. Corequisite: SOWK 494. This course is only open to social work majors who have been formally accepted into the BSW program.

SOWK 499 Internship (3-5)
Professional practice with individuals, groups, and communities in various social work sites under professional supervision. Prerequisite: SOWK 150.

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 202 Introduction to Sociological Inquiry (3)
Methods and areas of sociology. Preparation for writing and research requirements of upper-division sociology courses. Prerequisite: SOCO 260 or SOCO 264.

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 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 305 Environmental Sociology(3)
An overview of the interrelations among the physical environment, population, and technology; the origin and basis of environmental social movement organizations; the social construction of environmental issues. Prerequisites: SOCO 260 or consent of the instructor.

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 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 318 Sociology of Health & Illness (3)
Exploration of the sociological perspectives relating to the definitions and experiences of health and illness including the social distribution of illness in the population, stigmas of bodily and mental illness, health behaviors, comparison of health care delivery systems, and the medical professions. Prerequisite: SOCO 260 or SOCO 264.

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.

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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 331 Sociology of Aging (3)
Exploration of the sociological perspectives relating to the definitions and experiences of aging, including demographics of the aging population, family life and social support, physical and mental challenges, Medicare and Social Security, and social problems experienced by the elderly. Prerequisite: SOCO 260 or SOCO 264.

SOCO 340 Sex and Gender (3)
Perspectives on the social organization of sex and gender. Prerequisites: SOCO 260; or consent of instructor.

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 420 Field Studies (6)

SOCO 495 Independent Study (1-3)

SOCO 496 Topics (1-3)

SOCO 499 Internship (4)

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 305 Statistics and Quality Control for Engineering (3)
Introduction to descriptive and inferential statistics, and principles of quality management. Includes

descriptive statistics, probability distributions, hypothesis testing, regression analysis, control charts, total quality management, quality improvement process, process capability, gauge repeatability and reproductibility, six-sigma, risk assessment, quality audit and ISO 9000. Prerequisites: MATH 135 or MATH 151, and CSCI 130.

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 135 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 096 Gearing Up for College (1-3)

SUPP 100 Higher Education Success Skills (1)
Introduction to fundamental learning skills, first semester management strategies and campus resources specific to the higher education environment. Emphasized development of basic practical competencies necessary for successful completion of entry level university courses.

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 196 Topics (1-3)

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)

✓ 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 53.

TECHNOLOGY INTEGRATION (TECI)

TECI 110 Applied Physics (3)
Instruction and application of physics in relation to technical education. Exploration of physics through concepts, mathematics and experimentation. Real-world applications. Examines basic concepts, and interprets different forms of scientific representations. Includes properties, mechanics, fluid, electrical, and thermal systems. Lecture/lab format.

TECI 118 AC Passive Circuits (3)
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 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 (4)
The first of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: OSI model, internetworking devices, IP addressing, LAN media and topologies, structured cabling, electronics. CCNA certified individual can perform the following tasks: -Install and configure Cisco Switches and routers in multi-protocol internetworks using LAN and WAN interfaces. -Provide Level 1 troubleshooting service -Improve network performance and security -Perform entry-level tasks in the planning, design, installation, operation, and troubleshooting of Ethernet and TCP/IP networks.

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 (3)
Windows Domain Management and Windows Deployment. Introduces Microsoft Deployment Toolkit (MDT) to accelerate and automate deployments of Windows 8,Windows Server 2012, Windows 7, Office 2010, and Windows Server 2008 R2. MDT provides a common console with comprehensive tools and guidance for every organizational role. Recommended process and toolset to automate large-scale desktop and server deployments. Prerequisite: TECI 260.

TECI 290 Certification: (1)
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)

THEA 114 Summer Theatre (3)
THEA 214 Summer Theatre (3)
THEA 314 Summer Theatre (3)
THEA 414 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 116 Music Theatre Workshop (1)
THEA 216 Music Theatre Workshop (1)
THEA 316 Music Theatre Workshop (1)
THEA 416 Music Theatre Workshop (1)
A performance-based ensemble that combines musical theatre singing, acting, and dancing into a unified performance. Through focus on the works of specific composers and/or stylistic eras, students will produce and perform a musical revue for a public audience. Intended for Music Theatre majors, but students from other disciplines are invited to enroll. Prerequisites: THEA 153, MUSL 137, or consent of instructor.

THEA 117, 118 Play Production (1)
THEA 217, 218 Play Production (1)
THEA 317, 318 Play Production (1)
THEA 417, 418 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. Prerequisites: courses must be taken in sequence or by consent of the instructor.

THEA 119, 120 Technical Performance (1)
THEA 219, 220 Technical Performance (1)
THEA 319, 320 Technical Performance (1)
THEA 419, 420 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)
THEA 228, 229 Theatre Forums (1)
THEA 328, 329 Theatre Forums (1)
THEA 428, 429 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)
THEA 247, 248 Drama Performance (1-2)
THEA 347, 348 Drama Performance (1-2)
THEA 447, 448 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 156 Acting II: Contemporary Scenework (3)
Further development in the application of Stanislavski-based theory studied in Acting I. Includes substantial scene and monologue work in addition to beat analysis. Continued investigation into the depth and breadth of the actor's art. 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 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 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 156 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 256 Acting IV: Auditions (3)
Resumé writing. Choice and preparation of effective audition pieces.

✓ 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 53.

Prerequisite: THEA 253 or 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 300 Advanced Acting: Stage Combat (2)
This course is designed to introduce the actor to advanced study in various theatrical fighting styles including: unarmed, rapier and dagger, sword and shield, smallsword, broadsword, knife, single sword, and quarterstaff. The student will learn stage combat techniques adapted from actual historical fighting techniques and use those techniques in scenework. Prerequisite: THEA 253.

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 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.

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 353 Advanced Acting: Styles in Acting (3)
Various styles of acting used for the Classical, Elizabethan, Romantic, 19th century Melodrama and Realistic periods. Prerequisite: THEA 256 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. Prerequisite: THEA 256 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 356 Advanced Acting: Dialects (3)
Introduces students to the fundamentals of acting while using common stage dialects. Prerequisites: SPCH 112 and THEA 256, 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 256.

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 400 Sound Design for Theatre (3)
Incorporates theory and practice of conceptual sound design for live theatre, with extensive work in QLab software. This course will apply extensive knowledge and use of sound recording devices, mixing software, sound effects libraries, and playback methods.

THEA 401 Career Preparation (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 445 Senior Tech/Design Capstone (3)
Work experience in various aspects of theatre tech/design. Prerequisites: Senior standing or consent of instructor.

THEA 446 Senior Tech/Design Capstone (3)
Work experience in various aspects of theatre tech/design. Prerequisites: Senior standing or 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 256 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 256 or consent of instructor.

THEA 459 Advanced Acting: Chekhov Technique (3)
Introduction and exploration of the Michael Chekhov Acting technique. Prerequisites: THEA 256 or consent of instructor.

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.

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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.

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 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 SMAW (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.

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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. Prerequisities: 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 (2)
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 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 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 155 Basic Incident Command Systems and Facilitative Instructor (2)
Provides the entry level Wildland Firefighter with the essential understanding of the Incident Command System organizational chart, functions and responsibilities. This course combines the curriculum of the National Wildfire Coordinating Group Firefighter Training of the ICS I 200 and I 300 levels.

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 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/Adminstrative Requirement. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-300.

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 278 Supervised Work Experience (3)

FSWM 296 Topics (1-3)

FSWM 299 Internship (3-8)

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Administration

Colorado Mesa University Board of Trustees

(Date indicates year term expires.)

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BETTY BECHTEL (2015), Grand Junction

TILMAN M. BISHOP (2016), Grand Junction

KATHLEEN ECK (2014), Edwards

PAULA HERZMARK (2015), Denver

JOSE D.L. MARQUEZ (2014), Englewood

RAY MARTINEZ (2017), Fort Collins

DOUG PRICE (2016), Denver

DOUGLAS QUIMBY (2016), Colorado Springs

JOAN RINGEL (2015), Denver

GAYLA SLAUSON (2015), Faculty Trustee

ROBERT WILSON (2017), Grand Junction

Colorado Mesa University Administrators

TIMOTHY FOSTER (2004), President; BA, Kenyon College; JD, University of Denver

CAROL FUTHEY (2004), Provost and Vice President, Academic Affairs; BSEd, Slippery Rock State College; MA, Southern Illinois University-Edwardsville; PhD, University of Cincinnati

PATRICK DOYLE (2004), Vice President, Finance and Administrative Services; BS, University of Detroit; MA, Eastern Michigan University

JOHN MARSHALL (2007), Vice President, Student Services; BA, Mesa State College; MPA, University of Colorado-Denver

BRIGITTE SÜNDERMANN (2001), Vice President, Community College Affairs and Assistant Technical Professor of Manufacturing Technology; BS, Colorado State University; MBA, University of Phoenix

DEREK WAGNER (2009), Vice President, Intergovernmental and Community Affairs; BA, Mesa State College

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CODY ADAMS (2013), Academic Success Coach; AA, Front Range Community College, BBA, Regis University

RICK ADLEMAN (2001), Director, Alumni Relations; BBA, MBA, Mesa State College

RON ALLEN (2012), Head Coach, Men's and Women's Swimming and Diving; BS, Lewis and Clark College; MA, University of Oregon

BRENT ALUMBAUGH (2010), Clinical Coordinator/Physiologist; BA, Mesa State College; MS, University of New Mexico

BRIAN ARCAND (2013), Associate Director of Telecommunications and Instructional Technology; AAS, Mesa State College, BS, Colorado State University; MS, University of Colorado

KURTIS ARMSTRONG (2011), Director, Community Education Center, Western Colorado Community College; BA, MA, University of Northern Colorado

SKIP BANKS (2012), Student Conduct; BA, Mesa State College, MEd, East Carolina University

DIANA BARNETT (2012), Assistant Coordinator of Career Services; BA, MEd, University of Montana

JESSICA BARNETT (2009), Special Projects Coordinator, Academic Affairs; BA, University of Massachusetts-Boston

KEVIN BATES (2005), Information Technology Administrator; BSEE, Utah State University

JULIE BAUMGARTNER (2014), Acting Admissions Counselor, Denver; BBA, Colorado Mesa University

ROBYN BILLINGS (2013), Admissions Processing Manager; BS, Brigham Young University; MBA, Utah State University

ANNE KNIPE BLEDSOE (2004), Reference Librarian; BA, Lawrence University; MA, University of Wisconsin

JOEY MONTOYA BOESE (2005), Director, Montrose Center; BS, Adams State College; MS, Colorado State University

BARBARA BORST (1981), Library Instruction Coordinator; BA, Sterling College; MLS, Indiana University

LAURA BRADLEY (2010), Communications Coordinator and Box Office Manager; BA, Mesa State College

SONIA BRANDON (2004), Director, Institutional Research and Assessment; BA, MA, University of Colorado-Colorado Springs; PhD, University of Colorado, Denver

ASHLEY BRENNER (2011), Fiscal Analyst and Special Projects Coordinator, Financial Office; BA, University of California Irvine; MA, Emory University

KEVIN BRENZEL (2011), Area Coordinator for Orchard Avenue Apartments, Tolman and Pinon Halls; BS, State University of New York – Cortland

TRACY BRODRICK (2004), Bookstore Manager; BA, Chadron State College

PATRICK BROOKS (2011), Graduation and Records Specialist; BS, University of Wyoming

JEREMY BROWN (1998), Executive Director, Information and Communication Technology; BS, Mesa State College

NAOMI BROWN (2013), Assistant Athletic Trainer; BS, Colorado Mesa University; MEd, Midwestern State University

COURTNEY BRUCH (2013), Instruction and Reference Librarian; BA, University of Missouri-Kansas City; MLS, University of Missouri-Columbia

MARLENE BRUNET (2012), Outreach Center Manager; BBA, Mesa State College

CHANDLER BURGON (2013), Acting Associate Director, Admissions; BBA, Colorado Mesa University

ROBERT CACKLER (1997), Records Manager; AA, BA, Colorado Mesa University

APRIL CACKLER (2006), Academic Advisor; BA, Mesa State College

ASHLEE CADDY (2008), Financial Aid Counselor-Processing; BA, Adams State College; MPA, Capella University

PAIGE CADMAN (2009), Event Coordinator, University Center; BA, Mesa State College

MELISSA CALHOON (2012), Director of Student Support Services (TRiO); BS, Slippery Rock University; MS, Baypath College

ANNETTE CALLAWAY (1999), Professional Staff Assistant to the Provost and Vice President for Academic Affairs; BS, MEd, Colorado State University

KRIS CALVIN (2008), Admissions Office Manager; BA, Concordia University

MATT CANTERBURY (2007), Head Coach, Cross Country and Men's Track and Field; BA, MA, Cal State-Chico

PATTI CARLSON (2012), Instructional Designer – Media Specialist; BS, Purdue University; MS, Indiana University

NICHELLE CHANDLER (2013), Admissions Counselor; BA, Colorado Mesa University

DAVID CHANG (2013), Senior Applications Programmer; BS, Xiamen University-China; MS, University of Utah

KAYLI CHANGSTROM (2013), Assistant Coach, Swimming and Diving; BS, Washington State University

MICHAEL CHAVEZ (2013), Assistant Coach, Football; BS, Whittier College, MA, National University

JOANNE CHOJECKI (2012), Assistant Coach, Women's Lacrosse; BS, Washington and Jefferson College

JAMES CIHA (2008), Financial Aid Counselor – Customer Service, Financial Aid; BS, University of Wisconsin

JASON CLARE (2013), Head Coach, Women's Soccer; BS, University of Wales Institute-Cardiff

BARBARA CRANE (2011), Special Projects Coordinator; BS, University of Wyoming; MBA, University of Phoenix

SARAH CRON (2011), Library Director; BA, MLS, University of Iowa; PhD, Indiana University

SETH DAMRON (2014), Assistant Coach Football; BA, Mesa State College, MA, Adams State University

BRYAN DAVIS (2008), Assistant Controller; BBA, Western Michigan University; MBA, Colorado Mesa University

RYAN DEAN (2013), Assistant Athletic Trainer; BS, University of Wyoming; MS, University of Wisconsin-Madison

ALECIA DEMBOWSKI (2014), TAACCCT Grant Academic Outreach Advisor/Career Specialist; BA, Mesa State College

DARELL DIEDRICH (2011), Coordinator of Tutorial Services; BA, Mesa State College; MA, Northern Arizona University

PATTY DIEKMAN (2008), Financial Aid Counselor; AS, State University of New York Agricultural and Technical College; BS, Colorado State University

JODY DIERS, (2014), Acting Director of Residence Life; MA, University of Colorado-Colorado Springs

JAMES DILDINE (2013) Special Collections and Archives; BA, University of Minnesota; MLIS, MA, University of Arizona

KELLIE DIPPEL (2013), Registration Manager; MEd, University of Hawaii

MICHAEL DOMINGUEZ (2013), Assistant Coach, Men's Basketball; BA, Mesa State College

JEFFERY DOYLE (2006), Foundation CFO/Scholarship Coordinator; BBA, Western Michigan University

LINDA DU (1995), Database Administrator; BA, Beijing College of Economics; MBA, State University of New York-Buffalo

LYNN DUNCAN, RN (2011), Clinical Education Center Assistant Coordinator; BSN, South Dakota State University

RYAN DUTCH (2011), Assistant Director of Outdoor Program; BS, Mesa State College

SUZANNE ELLINWOOD (2000), Purchasing Manager; BS, University of Colorado-Boulder

HEATHER EXBY (1998), Director of Student Services, Western Colorado Community College; BA, Colorado College; MEd, Harvard University; PhD, Colorado State University

JAKE FERGUSTROM (1992), Life and Safety Specialist; BBA Colorado Mesa University

GYPSY FISHER (2013), Broadcast Media Specialist; BA. Emerson College; MLS. CUNY Queens College

DAVID FLEMING (2005), Head Coach, Women's Volleyball; BA, Denison University; MS, University of Michigan

SEAN FLOHR (2011), Enrollment Marketing Analyst; BBA, MBA, Colorado Mesa University

BELINDA FLYNN (2006), Director, Information Systems; BS, Mesa State College

DOUGLAS FRAZIER (2013), Bookstore Manager; BA, Colorado Mesa University

CHRIS FREIJE (2010), Assistant Coach, Wrestling; BA, Western State College of Colorado

JOSH FULLMER (2006), Head Athletic Trainer; AS, College of Eastern Utah; BS, Weber State University; MS, University of Utah

SYNDEE GARLAND (2007), Academic Advisor; BA, University of California-Riverside; MA, Adams State College

JOANNA GARZA (2013), Academic Success Coach; BA, Colorado Mesa University

KANDIS GILLESPIE (2012), Payroll Manager; BBA, University of Alaska Southeast

ANNIE GINGERICH (2010), Associate Director of International Programs and Services; BA, Central College; MA English, MA Spanish, Colorado State University

KEITH GISSEL (2013), Admissions Counselor, California; BA, MA, University of Redlands

DEBRA GORE (2013), TAACCCT Project Manager; BS, University of Wisconsin

CANDACE GRAUS (2007), Purchasing Coordinator; BS, University of Colorado

DANIELLE GREINER (2012), Academic Advisor; BA, Simpson College; MA, Louisiana State University

AMY GRIMES (2013), Professional Staff Assistant, Human Recourse BA, Colorado Mesa University

CHRIS HANKS (1993), Head Coach, Baseball; BS, Mesa State College; MA, University of Northern Colorado

SCOTT HANSEN (2012), Head Coach, Women's Golf; BS, University of Colorado-Colorado Springs

LISA HANSON (2013), Admissions Counselor, California; BS, Iowa State University; MA, Hawaii Pacific University

KATHRYN HARRIS (2013), Admissions Counselor, Processing; BA, Mesa State College

SHANNON HATTERVIG (2011), Clinical Coordinator – Athletic Training Program; BS, MS, South Dakota State University

JIM HEAPS (1991), Assistant Athletic Director – Student Success; BS, Mesa State College; MS, Southern Illinois University

AMANDA HERRON (2014), Graduation and Records Specialist; BBA, Colorado Mesa University

KRISTI HIPP (2014), Residence Hall Coordinator of North Avenue Hall; BA, Sonoma State University; MS, Indiana State University

KYLIE HOLLEY (2011), Manager of Wellness and Fitness; BS, Mesa State College

AMANDA HOLMAN (2010), Assistant Coordinator, Testing Services; BAS, Mesa State College

NICOLE HOLTON (2013), Admissions Counselor, Processing; BA, Mesa State College

AMY HOWARD (2008), Assistant Director, Residence Life; BA, Keene State College; MAEd, Naropa University

GAIL HOWE (2012), Program Coordinator, Office of Development; BA, University of Colorado-Boulder

LIZ HOWELL (2012), Professional Staff Assistant to the Vice President for Student Services; BAS, University of Wyoming

MICHAEL HUGHES (2009), Assistant Director of University Center Operations; BA, MBA, Mesa State College

KATHY HURSHMAN (1989), Assistant Controller; AAS, BBA, Colorado Mesa University

LUKE JACKSON (2013), Admissions Counselor, Denver; BBA, Colorado Mesa University

DAVID JAHNKE (2008), Sports Information; BS, Mesa State College

DONNA JUSTIN (2009), Professional Staff Assistant, Montrose Campus; BS, Colorado State University

MIKE KANSGEN (2013), Director, Computing and Network Systems; BS, Mesa State College; MSM, Colorado Technical University

MITCHELL KARSTENS (2012), Director of Student Life and Associate Director of the University Center; BS, MA University of Colorado-Colorado Springs

ANDREA KECK (2008), Digital Communications Manager; BBA, Mesa State College

JON KELLER (2011), Insitution Technology AV Specialist; BS, Utah State University

APRIL KENT (2010), Assistant Coordinator, Tutorial Services; BA, University of Northern Colorado

BARBARA CASE KING (2005), Director, Human Resources; BS, University of Wyoming; JD, University of Wyoming

MIKAELA KING (2012), Admissions Counselor, Denver; BA, Colorado State University; MA, Hult International Business School

CHRISTINA KLEESPIES (2011), University Center Director and Associate Director of Student Life; BS, Arizona State University

JILL KNUCKLES (2006), Benefits and Compensation Manager; BBA, Mesa State College

KARLI KNUDSEN (2011), Assistant Coach, Women's Basketball; BS, University of Montana

DIANE KULL (2007), Coordinator of Career Services; BA, Eastern New Mexico University

CONRAD LAGA (2013), Videographer and Media Asset Coordinator; BS, Dixie State College

PEGGY LAMM (2011), Director of Development; BS Ed, Emporia State University

MEGAN LANE (2013), Senior Admissions Counselor; BBA, MBA, Colorado Mesa University

CAROL LAWRENCE (2005), Assistant Director of Financial Aid; BS, MA, University of North Dakota

NICOLE LEBLANC (2014), Area Coordinator of Monument and Rait Halls and Walnut Ridge Apartments; BA, Keene State College; MS, Binghamton University

BARBARA LENGERICH (2014), Acting Development Program Coordinator/ Bookeeper

TYLER LIFF (2011), Bookstore Assistant Manager; AAS, Mesa State College; BS, Colorado State University

TANNER LINDT (2013), Transfer Manager; BBA, Colorado Mesa University

DANIEL LINSACUM (2009), Strength and Conditioning Coach; BA, Mesa State College

HEATHER LOPEZ (2011), Transfer Services Coordinator; BA, Colorado Mesa University

MERCEDES LOVATO (2013), Assistant Softball Coach; BS, California State University Northridge

CINDY LUEB (2000), Director, Sponsored Programs; BBA, MBA, Stephen F Austin State University

DANIEL MACDONALD (2005), Head Coach, Men's and Women's Tennis; BBA, Mesa State College

DOUGLAS MACDONALD (2010), Landscape Design and Sustainability Manager; AAS, Sinclair Community College; BS, Purdue University; MLA, Ball State University

LINDSEY MANNING (2013), Accounts Receivable Specialist, BS Elmhurst College

MICHAEL MANSHEIM (2005), Director, Marketing and Publications; BBA, University of Miami, MS, Syracuse University

IAN MARKS (2013), Sports Information Director; BS, University of Wisconsin-Superior

JESSE MARQUARDT (2013), Assistant Manager-Auxiliary Custodial Services; BA, Colorado Mesa University

KENT MARSH (2007), Director, Facilities Services; BS, Colorado State University

BEN MARTIN (2012), Assistant Coach, Football; BA, Southeast Missouri State; MS, Chadron State College

CURT MARTIN (1995), Director of Financial Aid; BA, University of Nebraska; MBA, Mesa State College

RUSS MARTIN (2012), Head Coach, Football; BS, MS, Chadron State College

SARAH MARTINEZ (2013), Assitant Coordinator of Testing Services; BA, Colorado Mesa University

HEATHER MCKIM (2008), Senior Research Analyst; BS, Wichita State University; MEd, University of Illinois at Chicago

SEAN MCKINNEY (2008), Assistant Coach, Baseball; BA, Mesa State College

GILLIAN MCKNIGHT-TUTEIN (2013), Assistant Vice President of Academic Affairs/Director of Distance Education; AA, College of Boca Raton; BA, Florida International University; MS, Barry University; PhD, Nova Southeastern University

KATHRYN MCMILLAN (2010), Student Information Specialist; BA, University of Puget Sound

MIKE MEENS (2007), Senior Systems Administrator; BS, Mesa State College

BREANNE MEIER (2005), Assistant Director, Student Life; BS, MBA, Mesa State College

JARED MEIER (2004), Director, Admissions; BBA, MBA, Mesa State College

ALISHA MENDELSON (2013), Purchasing Administration Coordinator; BBA, Colorado Mesa University

MARIANNE MERCADO (2006), Financial Aid Counselor; BFA, University of Colorado; AAS, Colorado Institute of Art

ELIZABETH MEYER (2013), Development Officer; BA, University of Puget Sound

SHANNON MIMS (1992), Human Recourse Generalist; BBA, Mesa State College

MILLIE MOLAND (2005), Director of Advising and Academic Services; BA, Minot State University; MSA, Central Michigan University

WILLIAM MOORMAN (2014), Club and Intramural Sports Manager; BS Colorado State Univeristy-Pueblo; MPA Drake University

JENNIFER MOTZ (2013), Acting Director of Presidential Affairs; BS, Colorado State University

FRANCESCA MORALES (2005), Student Mentor, Student Diversity, Advocacy and Health; AA, Mesa State College

KRISTIN MORT (1994), Associate Athletic Director/Senior Women Administrator; BA, Mesa State College; MA, Colorado Christian University

TRACY MUNDY (2006), Grants Specialist

ADAM NEFF (2008), Assistant Athletic Trainer; BS, Mesa State College

DJ NEPHEW (2013), Systems Administration; BSEE, University of Wisconsin-Madison

AMANDA NESBIT (2014), Accounts Receivable Specialist; AA, BS, MBA, Colorado Mesa University

ANNA NICHOLS (2012), Assistant Controller/Bursar; BA, Colorado Mesa University

AMANDA NICKSIC (2013), Academic Success Coach; BA, MA, Chapman University

ERIN NIX (2012), Assistant Coordinator, Educational Access Services; BA, Mesa State College

DANA NUNN (1999), Director, Media Relations

KELLY O'CONNELL (2006), Institutional Research Analyst; BS, Mesa State College

TODD PADGET (2014), Head Coach, Men's Soccer; BS, Fort Lewis College

MARCUS PATTON (2014), Assistant Coach, Football; BS, Kansas State University

KEEGAN PFEIFFER (2013), Assistant Manager-Auxiliary Custodial Services; BBA, Colorado Mesa University

RENAE PHILLIPS (2008), Professional Staff Assistant to the Director of Health Sciences; BS, Mesa State College; MS, Western Illinois University

JEFF PIPER (2013), Manager of Business Services; BBA, Mesa State College

CHARLES PIPHER (2006), Head Coach, Wrestling; BS, Colorado State University-Pueblo

JANE QUIMBY (2012), Public Safety Department Director; BS, University of Utah; JD, University of Denver

SYLVIA RAEL (2006), Head of Public Services, Tomlinson Library; BA, Washington State University; MLIS, Louisiana State University

THOMAS RAMLER (2010), Associate Director of Facility Services

IVAN RAYMOND (2013), Residence Hall Coordinator of Grand Mesa Hall; BA, MAEd, Wingate University

CREE ROBERTS (2008), Academic Advisor; AA, Colorado Mountain College; BA, Mesa State College; MA, Kansas State University

RYAN ROBINSON (2014), Assistant Director of Campus Recreation Services; BA, MBA, Colorado Mesa University

ANDREW RODRIGUEZ (1989), Assistant Vice President, Auxiliary Services; BS, University of Northern Colorado

BRYAN ROOKS (1997), Associate Athletic Director, Compliance and Eligibility; BS, Mesa State College

ERIN ROOKS (2001), Special Projects Coordinator, Academic Affairs; BBA, Mesa State College

KRISTYN ROSE (2007), Coordinator, Distance Education; BS, MAEd, Texas Tech University; PhD, Walden University

PATRIC RÖSTEL (2013), Head Coach Cycling; BS, Colorado Mesa University

EMILY SAMS (2013), Financial Aid Counselor – Scholarship Coordinator; BA, Mesa State College

DANNY SANDOVAL (2012), Director of Diversity, Advocacy and Health; BA, Mesa State College; MA, University of Colorado–Denver

JANE SANDOVAL (2005), Coordinator, Entrepreneurial Business Institute

BETTE SCHANS (1994), Director of Assessment of Student Learning and Professor of Radiologic Technology; BS, Metropolitan State College; MS, University of Colorado; PhD, Colorado State University

JENNIFER SCHMALZ (2013), Budget Services Coordinator; BA, Colorado Mesa University

SHERRY SCHREINER (2009), Director, Developmental Programs; BS, Colorado State University; MA, University of Northern Colorado; PhD, Colorado State University

SALLY CROW SCHUMAN (2011), Assistant Director, Financial Aid; BA, University of Montana

JESSE SCOTT (2013), Student Mentor, Student Diversity, Advocacy and Health, BA, Mesa State College

JOLENE SENA (2013), Assistant Coordinator of Testing Services; BS, Colorado Mesa University

ANDREW SHANTZ (2000), Head Coach, Basketball; BA, Mesa State College

ABBY SIMPSON (2011), Head Coach, Women's Lacrosse; BS, State University of New York – Cortland

ERIC SISNEROS (2014), Applications Administrator; BS, Colorado Mesa University

DAVID SKAFF (2012), Assistant Coach, Volleyball; BA, Colorado Mesa University

TERRI SMATLA (2013), Academic Success Coach; BS, Metropolitan State College; MEd, Adams State College

DAVID SMITH (2013), Assistant Coach, Tennis; BS, Mesa State College

GERALD SMITH (2012), Director Monfort Human Performance Lab and Assistant Professor of Kinesiology; BS, Walla Walla College; MS, University of Illinois Urbana-Champaign; PhD, Pennsylvania State University

JEREMY SMITH (2007), Senior Graphic Artist and Creative Project Manager; BA, Mesa State College

VINCE SMITH (2013), Head Coach, Men's Lacrosse; BA, Hampden-Sydney College

TINA SNOVER (2012), Graduate Coordinator, Center for Teacher Education; BA, Sweet Briar College

TOM SPICER (2013), Athletic Director; BS, MS Fort Hays State University

ED STEHLIN (2012), Acting Aquatics Coordinator and Head Coach, Club Swim; BS, Western State College

A J STEVENS (2009), Assistant Athletic Director for Emerging Sports; BS, University of Massachusetts-Dartmouth

JOHN STEWART (2013), Financial Aid Counselor; BA, Flagler College

RYAN STEWART (2012), Bookstore Department Manager

JENNIFER STOLL (2013), Event Management Coordinator; BA, Mesa State College; MS, University of Louisville

SEAN STRODE (2013), Academic Advisor; BA, Berklee College; MA, Northwestern University

STEPHANIE SUMMAR (2012), Web Content and Social Media Coordinator; BA, Colorado Mesa University

MARK SUTTON (2011), Parking Services Manager; BS, Colorado State University

WHITNEY SUTTON (1996), Director, Budgeting; BS, Mesa State College

COLE SWEETSER (2014), Assistant Coach, Men's Soccer; BA, Fort Lewis College

RICK TAGGART (2010); Acting Executive Director of Marketing and Student Recruitment; BS, Syracuse University; MBA, University of Phoenix

JOSEPH TAYLOR (2005), Controller; BA, Fort Lewis College

HOLLY TEAL (1996), Registrar; BS, Mesa State College; MS, Regis University

CHAD THATCHER (2002), Outdoor Program Coordinator; AA, Clark College; BA, MEd, Portland State University; PhD, Prescott College

KATRICE THOMAS (2007), Head Track and Field Coach; BA, Colorado State University

JEFFREY TURNER (2014), Residence Hall Coordinator of Garfield Hall; BA, Colorado Mesa University

DANA VANDEBURGT (2011), Coordinator, Educational Access Services; AS, Colorado Mountain College; BA, University of Colorado; MA, University of Northern Colorado

SARAH VESCIO (2013), Staff Assistant Parking Services; BBA, Colorado Mesa University

ALLISON VICKERS (2013), Residence Hall Coordinator of Bunting Avenue Hall; BA, University of Iowa; MA, New York University

PHILIP VIGIL (2013), Assistant Coach, Football; BS, Mesa State College, MA, Northwest Missouri State University

HEIDI WAGGONER (2012), Financial Aid Counselor – Financial Literacy and Debt Management; BBA, Colorado Mesa University

TAYLOR WAGNER (2012), Head Women's Basketball Coach; BS, University of Alaska-Anchorage

KRISTA WAGSTROM (2014), Facilities Administration Coordinator; BA, Colorado Mesa University

JAMES WALKER (2006), Head of Technical Services, Tomlinson Library; BA, MS, Loma Linda University; MSLS, University of Southern California

ERIN WARD (2009), Coordinator of Student Success; BA, University of Southern Indiana; MEd, Kent State University

NATHAN WATCHMAN (2006), Assistant Director of Residence Life–Operations; AS, BAS, BBA, Mesa State College

THOMAS WATSON (2002), Computer Support Services Manager; BS, U.S. Coast Guard Academy

STEVEN WERMAN (1990), Assistant Vice President, Academic Affairs and Professor of Biology; BS, MS, California State University–Long Beach; PhD, University of Miami

MICHAEL WILCOCK (2012), Associate Head Athletic Trainer; BS, MS, Brigham Young University

CHRIS WILCOX (2009), Student Services Coordinator, Montrose Campus; BS, Embry-Riddle Aeronautical University; MS, Troy University

ROSE WILLETT (2011), Scholarship Mentor, Student Diversity, Advocacy and Health; BS, University of Colorado - Boulder

JERMAINE WILLIAMS (2009), Athletic Event Management Coordinator; BS, Greenville College

LYNN WILSON (2012), Acting Director, Campus Recreation Services; AAS, Mesa State College

ROBERT WILSON (2010), Laboratory and Safety Technician; BS, Mesa State College

DAVID WING (2003), Senior Applications Programmer; BS, Mesa State College

TERRI WISE (1993), Coordinator, Testing Services; AA, Mesa State College; BS, Colorado Christian 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 10 years.)

CHARLES BAILEY, BA, MA, Professor of Mathematics (2005)

RICHARD BALLARD, BA, MS, PhD, Professor of Biology (2008)

CATHY BARKLEY, BS, MS, PhD, Professor of Mathematics (2010)

RICHARD BERKEY, BA, MA, Associate Professor of English (2010)

CLARE BOULANGER, BS, MA, PhD, Professor of Anthropology (2014)

JAMES BROCK, BS, MS, Associate Professor of Physical Sciences (2010)

ESTHER BROUGHTON, BA, MS, PhD, Professor of English (2008)

JAMES BUCKLEY, CPA, BA, MS, Professor of Accounting (2006)

HAROLD DAVENPORT, BS, MS, Ph D, Professor of Mathematics (2010)

FORBES DAVIDSON, BS, PhD, Professor of Biological Sciences (2011)

MATTS DJOS, BA, MA, PhD, Professor of English (2006)

ARUN EKTARE, PhD, Professor of Computer Science (2014)

BYRON EVERS, BS, MS, Associate Professor of Mass Communication (2013)

JUDY GOODHART, RN, BS, MSN Professor of Nursing (2009)

ANDREW GORDON, BA, MA, PhD, Professor of Spanish (2012)

CHAD LEE GRABOW, BS, MS, MA, PhD, Professor of Computer Information Systems (2006)

THOMAS GRAVES, BA, MA, EdD, Professor of Psychology (2007)

CHARLES HARDY, BA, MFA, Professor of Art (2006)

MYRA HEINRICH, BS, MA, PhD, Professor of Pshychology (2014)

ROBERT JOHNSON, BA, MA, PhD, Professor of English (2010)

LONGINO LUIS LOPEZ, BA, MA, PhD, Instructor of English (2012)

GARY MCCALLISTER, BS, MS, DA, Professor of Biological Sciences (2014)

DENISE MCGINNIS, BEd, MBA, PhD, Professor of Computer Information Systems, Business (2005)

BETSY MCLOUGHLIN, BA, MA, PhD, Associate Professor of Spanish (2006)

PRASANTA MISRA, BS, MS, PhD, Professor of Physics (2005)

JERRY MOORMAN, BS, MEd, EdD, Professor of Business (2013)

LAVERNE MOSHER, BA, MFA Professor of Art (2009)

TIMOTHY NOVOTNY, BA, BS, MA, MSBA, PhD, Professor of Mathematics and Statistics (2008)

JANINE RIDER, BA, MA, PhD, Professor of English (2007)

DAVID ROGERS, BA, MBA, Professor of Accounting (2012)

CHERYL ROY, BS, MSN, Associate Professor of Nursing (2010)

JAMES RYBAK, BSEE, MS, PhD, Professor of Engineering and Mathematics (2005)

ANN SANDERS, BA, MA, Associate Professor of Theatre and Dance (2006)

GENE STARBUCK, BA, MA, PhD, Professor of Sociology (2006)

CYNTHIA THOMAS, BSN, MS, PhD, Associate Professor of Nursing (2011)

KATHLEEN R TOWER, BME, MA, PhD, Professor of Library Science (2006)

SUSAN YEAGER, BA, MS, PED, Professor of Kinesiology (2011)

MARY ZIMMERER, BA, MS, PhD, Professor of Business (2007)

Colorado Mesa University Visiting Professors

Aspinall Professors

CARL ABBOTT (1985), History; BA, Swarthmore College; MA, PhD, University of Chicago

WILLIAM BEEZLEY (2008), History; BA, Chico State College; MA, PhD, University of Nebraska

STEPHEN BENNET (1995), History; BS, MS, Illinois State University-Normal; PhD, University of Illinois, Urbana-Champaign

ALAN BLOCK (1996), History, Political Science, and Public Affairs; AB, PhD, University of California-Los Angeles; MA, California State University

PETER BOYLE (1989), History and American Studies; MA, Glasgow University, Scotland; PhD, University of California, Los Angeles

GEORGE BROWDER (2001), History; BS, Memphis State University; MA, PhD, University of Wisconsin at Madison

WILLIAM CHALOUPKA (2009), Political Science; BS, University of Nebraska; MA, Arizona State University; PhD, University of Hawaii

CORNELL CLAYTON (2014), BA, University of Utah, MLiH; DPhil, Oxford University

WALKER CONNOR (1992), Political Science; John R Reitmayer Professor of Political Science, Trinity College

THOMAS DAVIS (2007), History; AB, Fordham University; MA, PhD, Columbia University; JD, State University of New York-Buffalo

ROGER DINGMAN (1991), History; BA, Stanford University; MA, PhD Harvard University

RICHARD W. ETULAIN (2010), History; AB, Northwest Nazarene College; MA, PhD, University of Oregon; DHL, Northwest Nazarene University

RICHARD FUNSTON (1987), Political Science; BA, MA, PhD, University of California-Los Angeles; JD, University of San Diego

ANDREW GULLIFORD (1997), History; BA, MAT, Colorado College; PhD, Bowling Green State University

GORDON MARTIN, JR (1998), Political Science, History, and Public Affairs; AB, Harvard College; JD, New York University

THOMAS MILLINGTON (2002), Political Science; BA, Williams College; MA, PhD, Johns Hopkins School of Advanced International Study

ROBERT MORTIMER (1986), Political Science; BA, Wesleyan University; MA, PhD, Columbia University

WILLIAM PARRISH (2000), History, Political Science and Public Affairs; BS, Kansas State University; MA, PhD, University of Missouri

EDWIN PERKINS (2003), History, Political Science, and Public Affairs; BA, College of William and Mary; MBA, University of Virginia; PhD, Johns Hopkins University

GLENDA RILEY (1993), History, Political Science and Public Affairs; PhD, University of Ohio

PAMELA RINEY-KEHRBERG (1999), History; BA, Colorado College; MA, PhD, University of Wisconsin

WILLIAM ROBBINS (1990), History; BS Western Connecticut; MA, PhD, University of Oregon

RANDOLPH ROTH (2012), History and Sociology BA, Stanford University; PhD, Yale University

JEROME STEFFEN (1988), History; BS, University of Wisconsin, Madison; MA, Eastern Michigan University; PhD, University of Missouri

ZACHARY SMITH (1994), History, Political Science and Public Affairs; BA, California State University, Fullerton; MA, PhD, University of California, Santa Barbara

ROBERT WESTBROOK (2004), History; BA, Yale University; PhD, Stanford University

JOHN WILLS, JR. (2005), History; BA, University of Illinois; MA, PhD, Harvard University

PETER H. WOOD (2013), History; BA, Harvard University; BA, University of Oxford; PhD, Harvard University

Campuses and Facilities

Colorado Mesa University's Main Campus encompasses 86 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 future. coloradomesa.edu.

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 **South Facility/Industrial Energy Training Center**, located at 29 and D Roads in Grand Junction, Colorado, houses staff offices, training areas and classrooms for the electric lineworker program.

The **Whitewater Facility** houses CMU's Forensic Investigation Research Station.

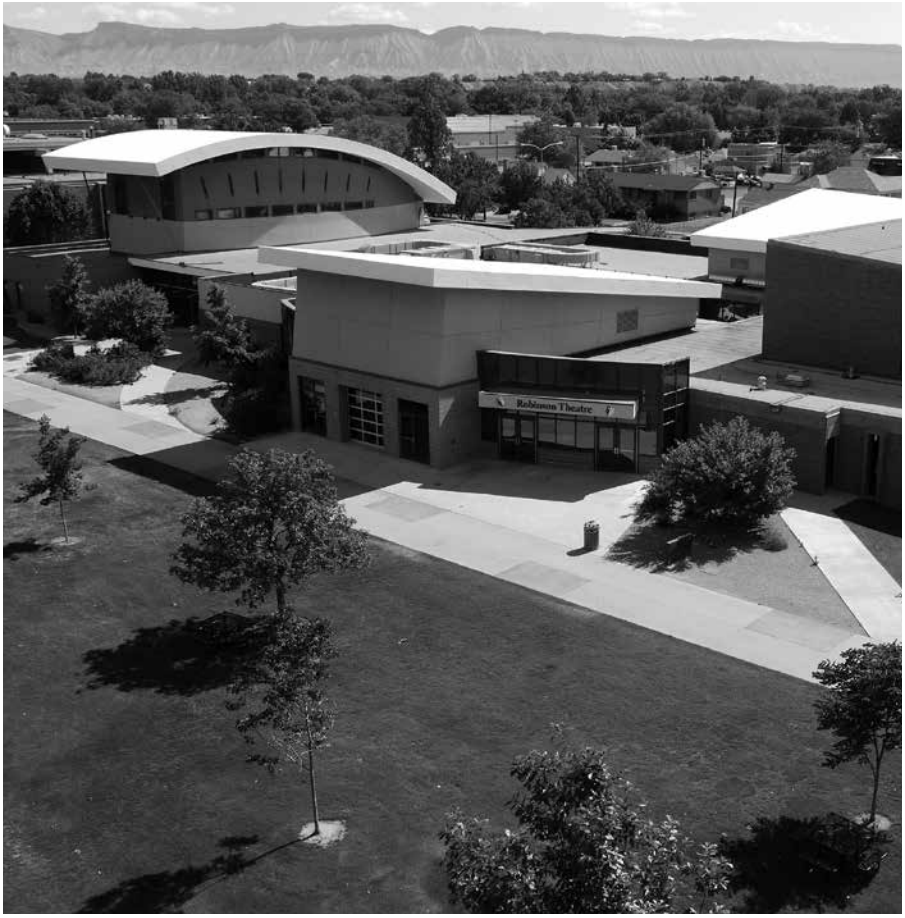
Academic Buildings

Albers Hall (1935, 2008, 2012) houses staff offices for diversity, advocacy and health, as well as the mentoring program.

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.

Bishop Health Sciences (2013), located on the Bishop Campus, houses classroom and laboratory space for certificate and associate-degree programs in health sciences.

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, POST Academy and high school programs.



The **Dominguez Hall (2008)** houses modern classrooms, lecture auditoriums, small breakout rooms for student collaboration, faculty offices and features an outdoor patio as well as a coffee bar.

Elm Hall (1969, 2008, 2010, 2014), houses classroom and meeting space for the intensive English program and international students.

Escalante Hall (2014) The nearly 76,000-square-foot building is home to state-of-the-art classrooms, four computer labs, one open lab, several lecture style classrooms, numerous smaller seminar rooms, two television studios and offices for language, literature and mass communication faculty and staff. A state-of-the-art television production studio is part of the mass communication facilities. Escalante Hall is also home to KRMJ-TV, the Grand Junction affiliate of Rocky Mountain PBS.

The **Fine Arts Building (2002)** provides studio laboratories, offices, and classrooms for studio art and graphic design. This facility has a large covered outdoor work area for ceramics kilns and a bronze foundry. The building design allows viewing of the studio activities from the hallways.

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)** is home to performance venues, classrooms, choral and instrumental rehearsal rooms, dressing rooms, and offices. It features the Walter Walker Lobby (originally built in 1969); the 605-seat **William S. Robinson Theatre** with fly loft and modern drama lighting systems; the smaller, more intimate **Mesa Experimental Theatre**; and a 300-seat recital hall. A three-story addition to the south end includes a scene shop, a costume shop, and a dance studio.

The **Maverick Center (2010)** houses intercollegiate athletics 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 Center was expanded in 2014.

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 Complex** 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 Complex**.

The Maverick Center is connected via a skybridge to the **Maverick Pavilion (2014)** a venue that hosts several indoor sport activities throughout the year.

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 (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.

Health Sciences North (2014) houses classroom and laboratories for health sciences and kinesiology programs, as well as the student health clinic.

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

Bunting Hall (2011) 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.

Garfield Hall (2013, 2014) is a traditional style residence hall that offers accommodations for 416 residents in double bedrooms. Each floor boasts three lounges and a community kitchen.

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 Hall (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.

Orchard Avenue Apartments (2012) is the University's newest residence hall. The building offers fully furnished, three and six-person apartments for 185 students. Most apartments include individual balconies as well as large community rooms and balconies on each floor.

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 two-story, 100,000 square-foot building and four-level parking structure that serves as the hub of campus life.

The facility features 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; Career Services; an Information Desk/Parking Services customer service area; 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 Student Life offices 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.

The Plaza (2014) the central, ellipse-shaped open space in the heart of campus is bound on four sides by the University Center, Monument Hall, Escalante Hall and Dominguez Hall. It provides a venue for large-scale productions, events and recreational activities.

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 (BA, BBA, BS, 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 (BA), Bachelor of Science (BS) 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 (AA, AS, 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.

ESSENTIAL LEARNING - Refers to the revised curriculum formerly described as General Education.

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 CERTIFICATES – Contain graduate level (5xx-7xx) courses. A student must be admitted as a graduate student to attempt a graduate certificate.

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.

PROFESSIONAL CERTIFICATE – A Professional Certificate contains primarily upper division (3xx-4xx) courses. For a student to attempt a Professional Certificate after the student has earned a baccalaureate degree, the student must be admitted to study as a post-baccalaureate student or as a graduate student.

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.

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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	DH 309	248.1778
Computer Science, Mathematics, & Statistics	WS 132	248.1407
Health Sciences	MC 169	248.1398
Kinesiology	MC 237	248.1635
Languages, Literature, & Mass Communication	EH 237	248.1687
Music	MPAC 113	248.1233
Physical & Environmental Sciences	WS 232	248.1993
Social & Behavioral Sciences	H 212G	248.1696
Teacher Education	DH 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
Accounting & Financial Services	LHH 101	248.1567
Advising Center	LHH 127	248.1177
Admissions Office	AO	248.1875
Alumni Association	1450 N 12th	248.1525
Associated Student Government	UC 212	248.1762
Athletics	MC 229	248.1503
Behavioral Clinical Services	1005 N. 12th #105	241.6500
Bookstore	UC 130	248.1422
Box Office	MPAC	248.1604
Career Services	UC 106E	248.1404
Campus Dining	UC 115	248.1742
Community Education Center	WCCC (BB185)	255.2800
Computer Lab, Library	L 120	248.1885
Criterion Newspaper	UC 211	248.1255
Distance Education	CSA 106	248.1384
Educational Access Services	H 108	248.1856
Entrepreneurial Business Institute	DH	248.1778
Extended Studies Program	CSA 106	248.1384
Facilities Services	CSA	248.1465
Financial & Administrative Svcs	LHH 252	248.1804
Financial Aid	LHH 116	248.1396
CMU Foundation	1450 N 12th	248.1295

OFFICE	LOCATION	EXTENSION
MA in Ed Program	DH 109	248.1786
MBA Program	DH 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
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, Marketing	LHH 205	248.1412
Regional Outreach	LHH 107	248.1366
Registrar's Office	LHH 121	248.1555
Residence Life	RL 100	248.1536
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Garfield Hall		248.1536
Grand Mesa Hall		248.2170
Monument Hall		248.2160
North Avenue Hall		248.2180
Orchard Avenue Apartments		248.2196
Pinon		248.1793
Rait		248.2151
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 106A	248.1758
WCCC Student Services	WCCC (BB 102)	255.2670

Building Legend

A .....Albers Hall
AO .....Admissions Welcome Center
BISH.....Tilman M. Bishop Campus (WCCC)
CSA.....Campus Services Administration
CSA.....Facilities Services
DEVCTR.....Development Center
DH .....Dominguez Hall
EH.....Escalante Hall
FA .....Fine Arts
H.....Houston Hall
HSN .....Student Health Center
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
RL.....Residence Life & Outdoor Program Offices
UC.....University Center
WCCC.....Western Colorado Community College
WS .....Wubben Hall and Science Center

MAIN CAMPUS

Map Legend

Building (code) . . . . . Number

Academic Quad 2
Admissions Welcome Center (AO) 3
Albers Hall (AH) 4
Diversity, Advocacy and Health; Office of Student Success
Alumni Association (A/F) 5
Basketball Court 41
Bergman Practice Field 6
Bunting Hall (BH) 7
Campus Services, Facilities (CSA) 8
Mail Room, Purchasing, Maintenance Shops
Delta Field 37
Development Center (DEVCTR) 9
Little Mavericks Learning Center
Development Office (A/F) 5
Dominguez Hall (DH) 1
Elliott Tennis Complex 10
Elm Avenue Quad 11
Elm Hall (ELM) 12
Escalante Hall (EH) 39
Fine Arts Building (FA) 13
Football Practice Field 14
Foundation (A/F) 5
Garfield Hall (GH) 38
Grand Junction Police Substation (UC) 35
Grand Mesa Hall (GMH) 15
Health Sciences North (HSN) 28
Houston Hall (H) 16
Educational Access Services (EAS), Testing Center, Tutorial Learning Center (TLC)
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Advising Center, Accounting and Financial Services, Financial Aid, Human Resources, President's Office, Registrar's Office, Student Services
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Brownson Arena, El Pomar Natatorium, Hamilton Recreation Center, Health Sciences Center, Monfort Family Human Performance Lab, Saunders Field House
Maverick Pavilion (MAVP) 20
Monument Hall (MH) 21
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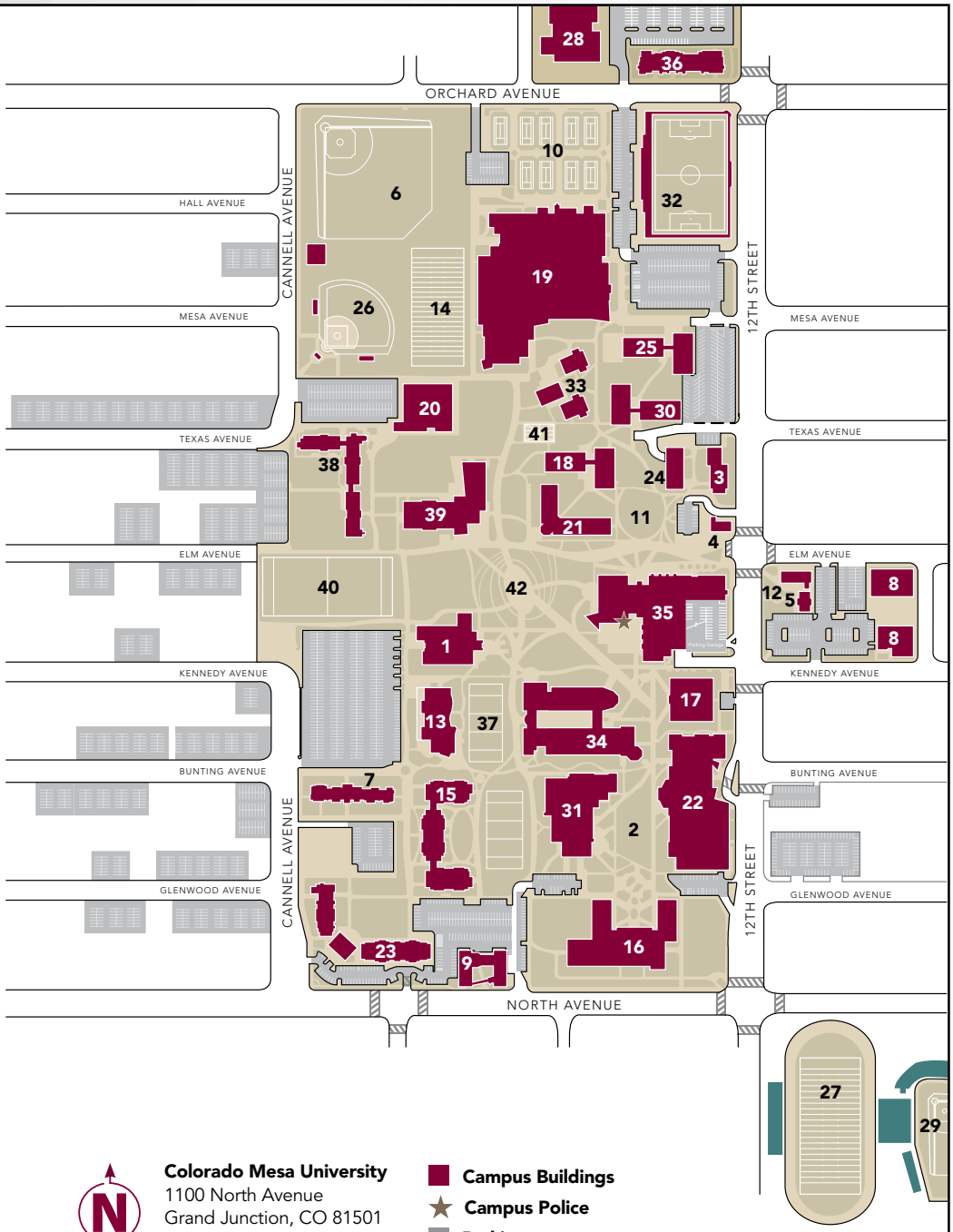

Colorado Mesa University
1100 North Avenue
Grand Junction, CO 81501
970.248.1020

- **Campus Buildings**
- **Campus Police**
- **Parking**
- **City of Grand Junction Buildings**

Academic Affairs

970.248.1881 coloradomesa.edu/academics
1100 North Avenue • Grand Junction, CO 81501-3122

Colorado Mesa University

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