

dreams

future

college

community



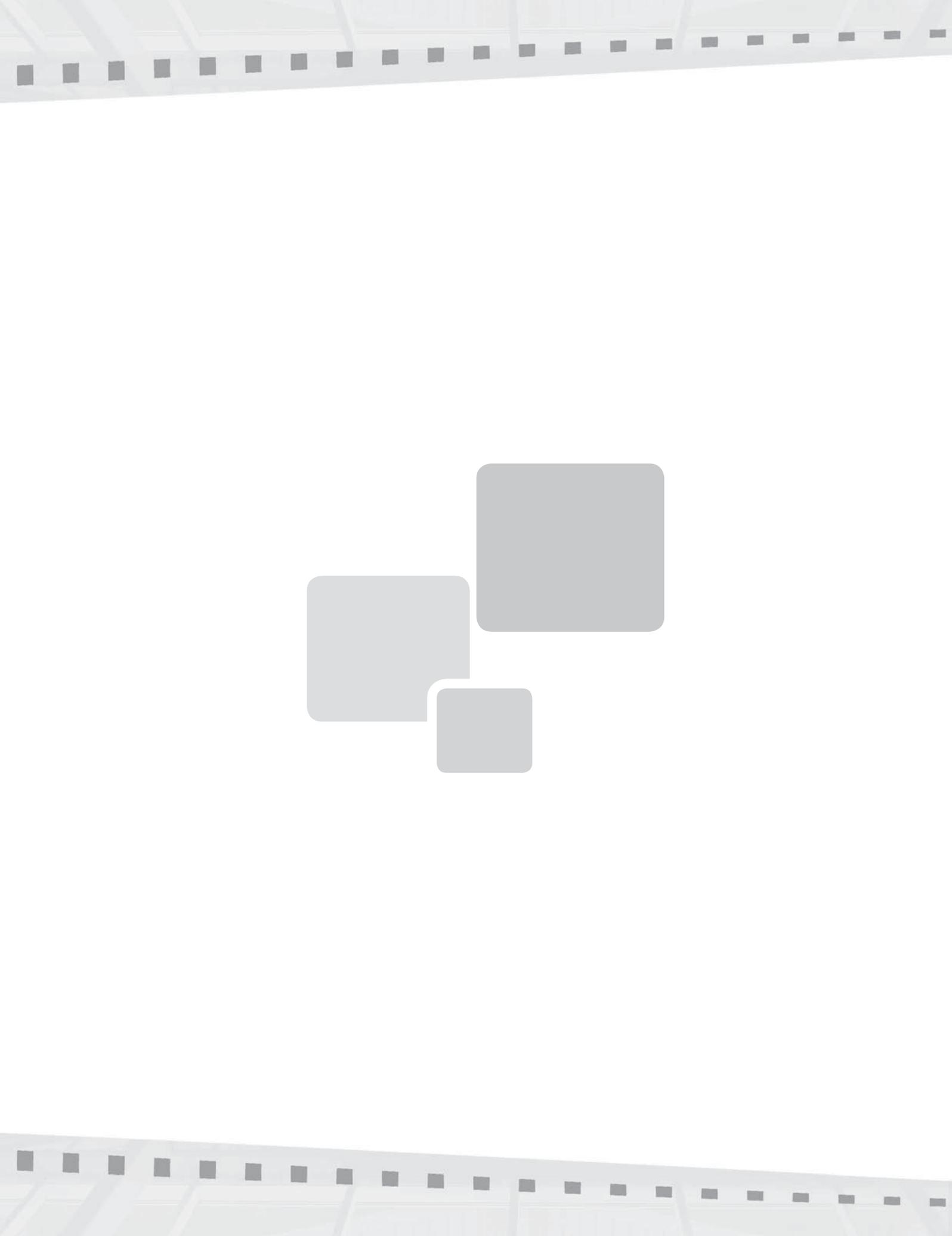
# YOU

that's what we're about

2100 16th Avenue South • Great Falls, MT 59405

406 771-4300 or 800 446-2698

[www.msugf.edu](http://www.msugf.edu) • [info@msugf.edu](mailto:info@msugf.edu)



Dear Prospective Student:

When you opened this catalog, you opened a door to exciting educational opportunities. If you are interested in preparation for a high-skill/high-tech career in health sciences, business, skilled trades, or technology, the opportunities are here. On the other hand, if you're looking for courses and programs that transfer to a four-year degree program, Montana State University—Great Falls College of Technology has many options for you to pursue.

The opportunities provided at this college go beyond a wide selection of educational programs. Here you have the opportunity to learn from high-quality faculty who take pride in good teaching. You can learn in small classes where you'll get individualized attention. You'll have the chance to experience learning enhanced by high-tech equipment and extended through a wealth of electronic resources.

Above all, here at MSU—Great Falls College of Technology, you have the opportunity to pursue your educational goals in an environment where student success and student satisfaction are the top priorities. Whatever our individual title, everyone here believes that, essentially, our job is the same: to help you make the most of the opportunities that this College offers.

So on behalf of the faculty, staff, and administration, I welcome you to Montana State University—Great Falls College of Technology. May the door to opportunity that you open today lead to many more doors in the years to come.

Sincerely,



Dr. Mary Sheehy Moe  
Dean



# OUR Mission STATEMENT

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Montana State University - Great Falls College of Technology, a student-centered two-year college, provides quality educational opportunities responsive to community needs.

## **TYPE OF INSTITUTION**

Montana State University-Great Falls College of Technology is a public postsecondary two-year educational institution affiliated with Montana State University. The College is committed to a dual mission: providing viable technical education to prepare individuals for work in a technologically driven global economy and providing learning opportunities to enhance educational access to the Montana University System.

## **DEGREES OFFERED**

Montana State University-Great Falls College of Technology delivers course offerings on-campus as well as at appropriate off-campus sites and through electronic technology. The College has an academic mission to:

- award Associate of Applied Science Degrees or Certificates of Applied Science in the career areas of Health Sciences and Business and Technology;
- award Associate Degrees for transfer to bachelor degree programs;
- offer general education courses reflective of the core curriculum requirements of the Montana University System;
- offer courses, seminars, workshops, and customized training to meet the educational needs of individuals, businesses, and other groups.

## **CONSTITUENCIES SERVED**

Montana State University-Great Falls College of Technology is a teaching institution that:

- provides beneficial and accessible technical education for training or retraining in high demand career fields to meet present and emerging employment needs;
- provides quality general core transfer courses and associate degrees parallel to the first two years of a bachelor's degree;
- stresses a student-centered approach to the delivery of educational services;
- promotes equal opportunity in education for all students;
- engages in community service and technical assistance activities.

## ACADEMIC RESPONSIBILITIES

Montana State University-Great Falls College of Technology designs its programs and courses to enhance the student's ability to:

- demonstrate competence in technical and related subject matter to attain lifelong career goals;
- demonstrate intellectual skills to realize advancement in higher education;
- acquire the knowledge and skills to live a productive life while achieving a balance between career, personal life, and service to others;
- analyze problems and identify and evaluate important information resources;
- recognize the importance of lifelong learning and gain the confidence to be a self-directed learner;
- think critically with a sensitivity to the human community and the ethics of the physical world;
- discover personal potential, and respect the uniqueness of others.

## ACCESS AND PARTNERSHIPS

Montana State University-Great Falls College of Technology is committed to strengthening access to public postsecondary educational opportunities through the administration of the Great Falls Higher Education Center; maintenance of contemporary telecommunications resources; and expansion of collaborative relationships with secondary and postsecondary institutions as well as with appropriate business, government, and human service entities to ensure the most effective use of resources.

## COMMITMENT TO ASSESSMENT

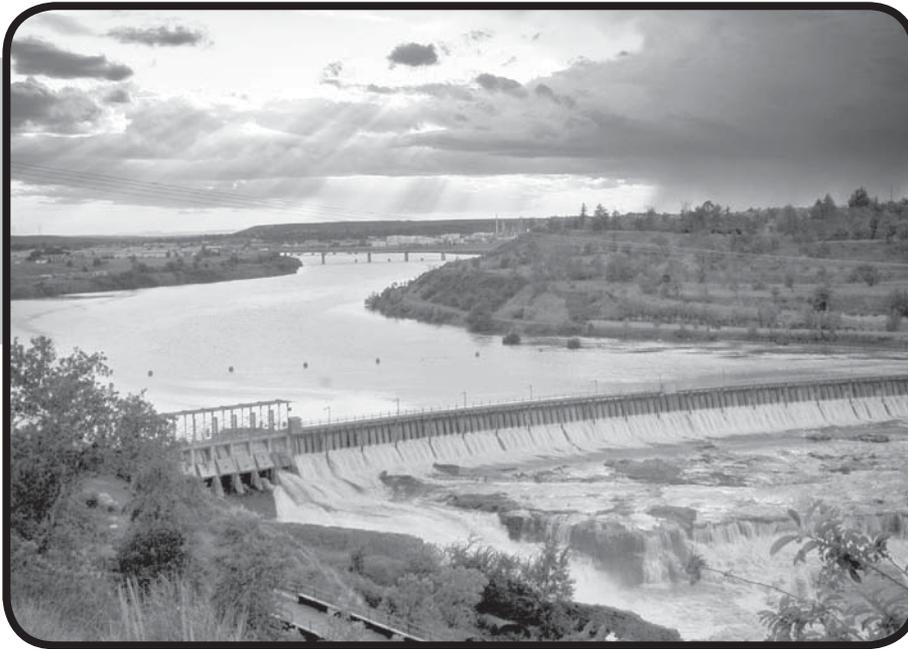
MSU – Great Falls College of Technology prides itself on being a student-centered two-year college providing quality educational opportunities responsive to community needs. The college is committed to the evaluation of institutional effectiveness and the assessment of student learning outcomes. This commitment is reflected through an assortment of activities and processes that all begin with a patent expression of the College's mission, vision, values, goals, strategic plan, and the espousal of these principles by the academic departments, their programs and all co-curricular divisions and departments.

## MONTANA STATE UNIVERSITY-GREAT FALLS COLLEGE OF TECHNOLOGY EIGHT ABILITIES

The faculty and staff of MSU – Great Falls College of Technology have deemed the following abilities to be central to the personal and professional success of all students:

1. **Communication:** The ability to utilize oral, written and listening skills to effectively interact with others.
2. **Quantitative Reasoning:** The ability to understand and apply mathematical concepts and models.
3. **Inquiry and Analysis:** The ability to process and apply theoretical and ethical bases of the arts, humanities, natural and social science disciplines.
4. **Aesthetic Engagement:** The ability to develop insight into the long and rich record of human creativity through the arts to help individuals place themselves within the world in terms of culture, religion, and society.
5. **Diversity:** The ability to understand and articulate the importance and influence of diversity within and among cultures and societies.
6. **Technical Literacy:** The ability to use technology and understand its value and purpose in the workplace.
7. **Critical Thinking:** The ability to demonstrate critical evaluation of an argument's major assertions, its background assumptions, and the evidence used to support its assertions, and explanatory utility.
8. **Effective Citizenship:** The ability to commit to standards of personal and professional integrity, honesty and fairness.





## GREAT FALLS HISTORY

In 1803, Thomas Jefferson commissioned Meriwether Lewis and William Clark and the Corps of Discovery to find “the most direct and practicable water communication across this continent for the purposes of commerce.” Lewis and Clark documented their experiences on the banks of “the thundering great falls of the Missouri” in their famous journals. You will enjoy reliving their epic expedition in a visit to the Lewis & Clark Interpretive Center.

In 1882, Paris Gibson, a Minneapolis city planner and engineer, recognized the potential in the area’s abundant resources and central location and with the backing of railroad magnate James J. Hill, became the city’s first developer. Gibson’s legacy was a carefully planned city incorporating 56 parks, a heritage of beauty that makes Great Falls unique today.

## GREAT FALLS . . . ALWAYS IN SEASON

Located in the heart of Montana, Great Falls is a progressive city surrounded by three mountain ranges, nestled in wheat fields with the Sun and Missouri rivers converging near the center of the city. A moderate climate with clean, pure air, low humidity, and long days of sunshine is enjoyed by Great Falls residents and visitors. Southwesterly Chinook winds make most winter days warm and pleasant.

## ALL ABOUT GREAT FALLS AND CASCADE COUNTY

### POPULATION

Great Falls .....	56,338
Cascade County .....	79,401
Elevation .....	3,300
Founded .....	1882

### FINANCES

Per capita income .....	\$21,724
State .....	\$19,338

### RESIDENTIAL REAL ESTATE

Median sales price (2006) .....	\$138,000
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### ATTRACTIONS

- Children’s Museum
- Giant Springs Heritage Park
- Great Falls Symphony
- Lewis & Clark Interpretive Center
- Paris Gibson Square Museum of Art
- Showdown Ski Area
- CM Russell Museum
- Gibson Park
- The History Museum
- Montana Expo Park & State Fair
- Rivers Edge Trail
- Ulm Pishkun Archaeological Site

### OUTDOOR RECREATION

- Biking
- Cross-Country Skiing
- Fishing
- Hunting
- National Parks
- Camping
- Downhill Skiing
- Hiking
- National Forests
- And much more . . .

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# YOUR Academic CALENDAR & DIRECTORY

## FALL SEMESTER 2008

Continuing Student Registration Begins for Fall 2008 .....	April 2
New Student Registration Begins for Fall 2008 .....	May 13
Bozeman Only – Freshman Orientation .....	June 9-11
Bozeman Only – Freshman Orientation .....	July 7-9
Bozeman Only – Freshman Orientation .....	July 14-16
Intersession- No classes, offices open .....	July 28 – August 29
Health Science Orientation .....	August 21
Bozeman Only – Freshman Orientation .....	August 27-29
Great Falls Only - Orientation Day for New Students .....	August 27
Challenge Exams .....	August 27
Keyboarding I & II; Intro to Computers; Medical Terminology .....	
FOA Days .....	August 19-29
Payment Deadline .....	August 29
Labor Day Holiday (No classes; offices closed) .....	September 1
100% Tuition Refund for Classes Dropped before .....	September 2
Classes Begin .....	September 2
90% Tuition Refund for Classes Dropped between .....	September 2-8*
Last Day to Add Class on Web .....	September 8
75% Tuition Refund for Classes Dropped between .....	September 9-15*
Instructor approval needed for adding class .....	September 9-22
Bozeman Only – last day to drop class on Web .....	September 15
50% Tuition Refund for Classes Dropped between .....	September 16-22*
Last Day to Withdraw/Drop Classes with a Partial Refund .....	September 22*
Great Falls Only – last day to drop class on Web .....	September 22
Instructor approval needed for dropping class .....	September 23 – December 5
Columbus Day – Classes in session, offices open .....	October 13
Graduation Applications Due .....	October 17
Mid-Term Grades Due .....	October 27
Continuing Student Registration for Spring 2009 Begins .....	November 3
Election Day (No classes; offices closed) .....	November 4
Veteran’s Day (No classes; offices closed) .....	November 11
New Students’ Registration Begins (Spring 2009) .....	November 24
Thanksgiving Holiday (No classes; offices closed) .....	November 27-28
Last Day to Withdraw with a “W” .....	December 5*
Last Day of Classes .....	December 12
Finals Week .....	December 15-18
Intersession – No classes, offices open .....	December 19 – January 13
FOA Days .....	December 19, 22
Grades Due .....	December 22
Grades Available on the Web .....	December 25
Christmas Holiday (No classes; offices closed) .....	December 25-26

## SPRING SEMESTER 2008

Continuing student registration begins for Spring 2009 .....	November 3
New student registrations begins for Spring 2009 .....	November 24
Intersession – No classes; offices open .....	Dec 19 – Jan 13
Christmas Holiday (No classes, offices closed) .....	December 25-26
New Year’s Holiday (No classes; offices closed) .....	January 1
Payment deadline - \$40 Late Payment Fee after this date .....	January 13
Orientation for New Students .....	January 9
Challenge Exams .....	January 9
Keyboarding I & II 9:00-10:00 B126 .....	
Intro to Computers 10:15-11:45 B127 .....	
Medical Terminology 2:30-4:00 B136 .....	
College in a Day .....	January 8
FOA Days .....	January 5-9, 12-13
MSU Only – new student orientation .....	January 12-13
Health Science Orientation .....	January 12
100% Tuition refund for classes dropped before .....	January 14*
Classes Begin .....	January 14
90% Tuition refund for classes dropped between .....	January 14-21*
Martin Luther King Holiday (No classes; offices closed) .....	January 19
Last Day to Add Classes on Web .....	January 20

# Academic CALENDAR & DIRECTORY

75% Tuition refund for classes dropped between.....	January 22-28*
50% Tuition refund for classes dropped between.....	Jan 29-Feb 4*
Last day to withdraw/drop classes with a partial refund.....	February 4*
Instructor approval needed for dropping class.....	Feb 4-April 24
President's Day (no classes; offices closed).....	February 16
Graduation applications due (with \$25 fee).....	March 6
Spring break – no classes, offices open.....	March 16-20
Mid-Term grades due.....	March 23
Mid-Term grades available on the Web.....	March 30
Continuing student registration for Summer 2009.....	April 1
Continuing student registration for Fall 2009.....	April 1
Student Picnic.....	April 10
Student Appreciation Week.....	April 13-17
Last day to withdraw with a "W" grade.....	April 24
New student registration begins (Summer Session 2009).....	April 27
Last day of classes.....	May 1
Finals Week.....	May 4-7
Commencement.....	May 8
Grades Due.....	May 11
FOA Days.....	May 8, 11, 12
Intersession.....	May 8 – May 15
Grades Available on the Web.....	May 15
New Student Registration for Fall 2009 begins.....	May 18

## SUMMER SEMESTER 2009

Continuing Student Registration for Summer 2009 Begins.....	April 1
New Student Registration Begins (Summer Session 2009).....	April 27
<i>Intersession – No classes, offices open.....</i>	<i>May 8-15</i>
Health Sciences Summer Session Dates.....	May 18 – July 24
Memorial Day Holiday (No classes; offices closed).....	May 31
Payment Deadline for Summer Session.....	May 29
Regular Summer Session Dates.....	June 1 – July 24
100% Tuition Refund for Classes Dropped before.....	June 1
Classes Begin.....	June 1
90% Tuition Refund for Classes Dropped between.....	June 1-3*
Last Day to Add Classes.....	June 3
75% Tuition Refund for Classes Dropped between.....	June 4-8*
50% Tuition Refund for Classes Dropped between.....	June 9-11*
Last Day to Withdraw/Drop Classes with a Partial Refund.....	June 11*
Graduation Applications Due (with \$25 fee).....	June 26
Independence Day Holiday (No classes; offices closed).....	July 3
Last Day to Withdraw with a "W" grade.....	July 17
Last Day of Classes.....	July 24
Grades Due.....	July 27
<i>Intersession – No classes, offices open.....</i>	<i>July 27 – August 30</i>
Grades Available on Web.....	July 31

\* *Withdrawal and refund dates do not apply to Courses numbered 116 or 199. Please see catalog Tuition and Fees Policy section or MSU-Great Falls Outreach for more information.*

## TELEPHONE DIRECTORY

MSU – Great Falls College of Technology.....	800-446-2698 or 406-771-4300
Admissions & Records.....	406-771-4420
Arts & Sciences Department.....	406-268-3705
Business & Technology Department.....	406-771-4391
Business Office.....	406-771-5129
COTtage Bookstore.....	406-771-4367
Distance Education Department.....	406-771-4440
Financial Aid.....	406-771-4334
Health Science Department.....	406-771-4350
Help Desk.....	406-771-4433
Learning Center.....	406-771-5127
Library.....	406-771-4398
Outreach and Workforce Development.....	406-771-4303
Student Central.....	406-771-4414

# YOUR General INFORMATION

**NOTICE CONCERNING MATERIALS DESCRIBED IN THIS CATALOG:** All provisions within this catalog are subject to change without notice.

While the College will make every effort to provide all described courses and programs, the final decision regarding availability will be determined by enrollment, available faculty, funds, and employer training needs.

## **GOVERNANCE**

Montana State University-Great Falls College of Technology is a two-year technical/community college within Montana's public university system. Central administrative control of the College is vested exclusively in the Montana Board of Regents. The Regents have full power, responsibility, and authority to supervise, coordinate, manage, and control the colleges and universities within the Montana University System.

Although a stand-alone institution for purposes of institutional accreditation, budget, personnel, and management, Montana State University-Great Falls College of Technology has been affiliated with Montana State University since July 1, 1994.

## **ACCREDITATION**

Montana State University-Great Falls College of Technology is accredited by the Northwest Commission on Colleges and Universities, a regional postsecondary accrediting agency. Regional accreditation assures the quality of the educational experience and facilitates the transfer of credit to state and national colleges and universities.

In addition, the Dental Assistant, Dental Hygiene, Emergency Medical Technician, Health Information Technology, Medical Assistant, Physical Therapist Assistant, Practical Nurse, Respiratory Care, and Surgical Technology programs are accredited and/or approved by their respective state and/or national agencies.

All educational programs offered by the College are approved by the Montana Board of Regents, United States Department of Education, United States Department of Veterans Affairs, and Montana Department of Vocational Rehabilitation Services.

## **IMPORTANT COLLEGE REGULATIONS AND POLICIES**

### **COMPUTER & NETWORK USAGE POLICY**

This college is pleased to offer students a wide variety of computer facilities, services, equipment, and software. Students are encouraged to use them within official guidelines. The Montana University System Board of Regents has implemented information technology policies that apply to all public institutions of higher education within the state of Montana. These policies may be reviewed at: <http://www.bor.montana.edu/borpol/bor1300/1304-1.htm>. Additional college policies can be found at [www.msugf.edu](http://www.msugf.edu). Failure to comply with these guidelines may result in disciplinary action, including expulsion from the college and criminal prosecution.

#### **• Access**

Students have access to computers on the MSU – Great Falls campus at several locations – in computer labs, the library, computer classrooms, and at the computer kiosks outside the bookstore. Students currently enrolled for classes also may have access to wireless networking but must first sign an agreement with the Information Technology Department when using personal computers for such use and comply with the Network Attached Device Policy and Standards. Students and non-students are welcome to use the computer kiosks, but are asked to share that resource with others who wish to use it. Similarly, students and non-students may use the research computers in the library to meet their informational needs. Computers in the library dedicated as computer lab workstations

will require a current student identification card. Library computer workstations dedicated for research are available to the general public; however, priority for these machines will be given to students enrolled at the college. The library's computers (both student lab workstations and research stations) may not be used for communicative or leisure purposes - for instance, personal email, chat rooms, blogging and online or personal gaming. Because access to computer labs and classrooms is purchased by students through their computer fees, computer labs and classrooms may be used only by students currently enrolled in classes, workshops, or seminars at the College. Students are allowed access to open computer-equipped classrooms when the building is open, Monday - Friday. On weekends, in the event of an overflow from the Library Computer Lab, a classroom may be unlocked for student use.

#### **• Privacy of Information**

MSU – Great Falls campus computer systems and networks are public and subject to Montana State laws. Files of personal information, including programs, regardless of the medium on which they are stored or transmitted, may be considered public information and are stored on MSU – Great Falls College of Technology computers. However, simply being able to access a file or other information does not imply permission to do so. The preservation of individual privacy is given high regard at this College, and students may not use electronic and other technological methods to infringe upon another's privacy. No one should look at, copy, alter, or destroy any individual's personal files without explicit permission from that individual, unless authorized by the Dean of the College in compliance with law or regulation.

#### **• Libel, Slander, and Harassment**

No member of the College community may, under any circumstances, use MSU – Great Falls College of Technology computers or networks to libel, slander, or harass any other person. Harassment includes intentionally using the computer to threaten or sexually harass another person; contact another person repeatedly regarding a matter for which one does not have a legal right to communicate once the recipient has provided reasonable notice that he or she desires such communication to cease; and/or disrupt or damage someone's academic, research, administrative, or related pursuits.

#### **• Responsible Use of Resources**

Students are responsible for knowing what information resources (including networks) are available, remembering that the members of the College community share them, and refraining from all acts that waste these resources or prevent others from using them. Details regarding available resources can be obtained by consulting with the Information Technology department.

Students are discouraged from using campus computing and network services for non-academic purposes such as game playing and non-academic chat rooms. A student using a computer for non-academic matters must give it up when someone who wishes to use the computer for academic purposes is waiting.

State law restricts the use of state facilities and equipment for personal gain or benefit. Computing facilities, services, and networks at MSU – Great Falls may not be used for compensated outside work or work for the benefit of organizations not related to MSU – Great Falls without written permission from the Dean. Electronic gambling, stock trading, or any other financial gain method conducted on College computers, services, or networks is forbidden. State law also restricts the use of College computer systems for political advocacy or for commercial advertising.

#### **• System Security**

Students are prohibited from attempting to circumvent or subvert any security measures, degrade the performance of a computer system or network, or deprive authorized personnel of resources or access to any College computer system or network.

The following harmful activities are also prohibited: creating or propagating viruses; disrupting services; deleting or damaging files without proper authorization; intentionally destroying or damaging equipment, software, or data belonging to MSU – Great Falls or other users; and the like.

No software may be installed, copied, or used on College resources except as permitted by system administrators.

## CRIME AWARENESS AND CAMPUS SECURITY

It is the policy and commitment of the College to afford its students, employees, and visitors a campus and educational environment that is as safe and free of crime as possible. Students, employees, and visitors contribute to overall campus safety by reporting criminal activity, by securing personal possessions, and by being aware of personal safety when entering or exiting the campus buildings. A brochure which provides campus crime prevention information as well as statistics on the incidence of campus crime is available from the Welcome Desk.

## DRUG-FREE CAMPUS POLICY

In compliance with the Drug Free Workplace Act of 1988, Public Law 101-690, Montana State University – Great Falls College of Technology is committed to a good faith effort to provide a drug-free campus. Therefore, the manufacturing, distribution, sale and/or abuse of illicit and/or prescription drugs, or the inappropriate use of alcohol at the College or in any activity affiliated with the College is prohibited. In addition, the College will enforce the Board of Regents' policy, Section 503.1, of the Policy and Procedures Manual regarding alcoholic beverages. Students must comply with this policy as a condition of attendance. Violations of this policy will result in disciplinary action up to and including expulsion and/or referral for prosecution. At the discretion of the Dean of the College of Technology, a student violating the policy may be required to satisfactorily complete a drug or alcohol abuse rehabilitation program as an alternative to expulsion or as a condition for readmission.

According to information provided by the U.S. Department of Education, drug and alcohol abuse may cause personal health problems, as well as interfere with work, school and daily living performance.

The Great Falls community has a number of excellent resources available to assist an individual who is having difficulty with drug and/or alcohol abuse. Student Central Advisors at the MSU - Great Falls College of Technology are familiar with community resources and are available to refer individuals for assistance and/or treatment to overcome the problem of drug or alcohol abuse. If an individual is reluctant to approach College personnel, information about assistance programs may be obtained by calling the Community Help Line--761-6010.

## EQUAL OPPORTUNITY POLICY

Montana State University – Great Falls College of Technology is committed to the provision of equal opportunity for education, employment, and participation in all College programs and activities without regard to race, color, gender, marital status, disability, age, disadvantage, religion, political affiliation and/or national origin.

The College's Equal Opportunity Officers are the Executive Director of Human Resources and the Assistant Dean of Student Services, 2100 16th Avenue South, Great Falls, MT 59405. Telephone: 406-771-4300.

## FIREARMS, MUNITIONS, EXPLOSIVES

Possession, use, or threatened use of firearms, ammunition, explosives, chemicals, and/or any other weapons are prohibited. This applies to all campus locations, including campus grounds and parking facilities. Violations of this policy will result in disciplinary action up to and including dismissal and/or referral for prosecution.

## SEXUAL HARASSMENT POLICY

Title VII of the Civil Rights Act of 1964 prohibits discrimination on the basis of gender. Sexual harassment is a form of gender-based discrimination. Montana State University-Great Falls College of Technology prohibits and will not tolerate sexual harassment on its premises, within any of its programs, services or other College-sponsored activities, or by anyone acting as an agent of the College.

MSU – Great Falls College of Technology uses the definition of sexual harassment set forth by the U.S. Equal Employment Opportunity Commission which states:

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitutes sexual harassment when submission to or rejection of this conduct explicitly or implicitly affects an individual's employment, unreasonably interferes with an individual's work performance or creates an intimidating, hostile, or offensive work environment.

Title IX extends these protections to include students. Other consumers and members of the general public who come into contact with the College or its agents are covered by this policy as well.

Any employee who believes her or she is experiencing sexual harassment should immediately contact the College's Executive Director of Human Resources to discuss options for resolving the issue. Students should contact the Assistant Dean of Student Services and anyone else should contact the College's Dean. Individuals are generally encouraged to attempt to resolve the issue informally by discussing their concerns with the alleged harasser, his or her supervisor, or both. However, the College recognizes that sexual harassment is a sensitive and potentially volatile issue, and if it is not feasible for the harassed individual to follow this recommended procedure, the appropriate agent should be contacted initially to begin an investigation. All complaints will be handled with discretion and information provided in the initial complaint and during the course of the investigation will remain as confidential as possible. The identity of both the complainant and the alleged harasser will be protected.

Any individual found to be guilty of violating the College's sexual harassment policy will be subject to discipline commensurate with the nature of the offense. Disciplinary action up to and including termination (or dismissal in the case of a student, termination of a contract in the case of a contractual relationship, or restricted access to the College in the case of a member of the general public) may be implemented.

Individuals who submit complaints and/or participate in the investigation process are protected from retaliation due to their participation. Anyone engaging in retaliatory behavior will be in violation of the College's sexual harassment policy, and therefore subject to appropriate disciplinary action as outlined above.

MSU – Great Falls College of Technology is committed to providing and ensuring a safe, positive learning environment that is free from harassment. A complete version of this policy may be obtained from Human Resources or online at [www.msugf.edu](http://www.msugf.edu)



# YOUR Student Central - ADMISSIONS

Student Central is a type of “One Stop Student Shop” for students at MSU - Great Falls College of Technology. Located at the north end of campus, just inside the big atrium entrance, students can have confidence that everything they need in terms of services and information will be right there. Student Central contains the following services and functions for the College’s students:

- Academic Advising
- Admissions
- Assistant Dean of Student Services
- Career Pathways
- Career Service
- Facilities Director
- Financial Aid
- Recruitment
- Registrar
- Student Accounts
- Student Assistance Foundation
- TRIO/Educational Opportunity
- Veteran’s Services

## Admissions

### APPLICANTS

As an open admission institution, Montana State University-Great Falls College of Technology will attempt to admit all persons who complete admission requirements. The College reserves the right to deny or conditionally admit, readmit, or cancel the enrollment of any individual, who in the judgment of the College presents an unreasonable risk to the safety and welfare of the College community, or who has failed to maintain satisfactory academic progress. Applicants/current students may be asked to complete either a Safety and Security Questionnaire or an Admissions Academic Appeal form before an admissions decision is made or changed.

Notification of an admission decision will be mailed to the applicant. Admission to the College does not guarantee admission to a specific program. Students must contact the program advisor for individual program admission requirements. For students choosing to apply for financial aid, documentation may be required. Admission decisions may be appealed, in writing, to the Dean of the College.

In the case of programs with limited enrollment, acceptance of individuals will be based on the criteria described in the program’s information packet or timely completion of the admission requirements for each program.

All applicants will be considered without regard to race, color, religion, national origin, marital status, age, gender, disability, or disadvantage in accordance with the following guidelines:

### DEGREE SEEKING

A degree seeking applicant is one who possesses a high school diploma or its equivalent and will enroll in a specific program to earn a certificate or degree.

### NON-DEGREE SEEKING

A non-degree seeking applicant is one who will not enroll in a specific program to earn a certificate or degree. If status changes at a future date to degree seeking, additional admission requirements will have to be met. Non-degree seeking applicants are not eligible for financial aid.

### UNDECLARED APPLICANT

An undeclared applicant is one who is degree/certificate seeking but has not declared a specific field of study. Undeclared applicants are not eligible for financial aid.

### FULL-TIME STUDENT

A full time student is one who is enrolled in 12 or more credit hours per term. Students who do not meet the criterion for full-time classification are part-time students.

### PROGRAM REQUIREMENTS

Some licensing or certification boards have varied restrictions, which may affect persons with a history of felony conviction. The College assumes no responsibility for the denial of licensure or certification by such boards. Prospective students are responsible for contacting the appropriate boards concerning any questions regarding their eligibility for licensure or certification.

Program directors may deny admission to a specific program based upon individual program admission criteria. In addition, program directors may dismiss a student from a specific program and withdraw that student from applicable courses in the case of student misconduct as defined by program and/or standards.

### RESIDENCY REQUIREMENTS

Under policies established by the Board of Regents, in accordance with Montana statutes regarding residency, all applicants for admission and all students at the units of the Montana University System shall be classified as in-state or out-of-state for fee purposes.

**In-state vs. Out-of-state:** A person may be classified as in-state following a 12-month continuous period of domicile in Montana with a documented and dated intent to become a resident of Montana as outlined in the Montana University System Guide to Montana’s Residency Policy, provided that the person is not registered for more than one-half of a full-time credit load at any post-secondary institution during the 12 month waiting period. Members of the United States Armed Forces assigned to active duty in Montana, their spouses, and dependent children during the member’s tour of duty may be granted in-state residency for fee purposes.

**In-State completely online:** A person classified as in-state and taking ONLY online courses is able to receive adjusted tuition and mandatory fees.

**Out-of-State completely online:** A person classified as out-of-state and taking ONLY online courses is able to receive adjusted tuition and mandatory fees.

**Western Undergraduate Exchange (WUE):** The Western Undergraduate Exchange (WUE) is a program of the Western Interstate Commission for Higher Education (WICHE). Through WUE, students in western states may enroll in many two-year and four-year college institutions at a reduced tuition level: 150 percent of the institution’s regular resident tuition. Visit the WICHE website at: <http://www.wiche.edu/> or visit <http://wue.wiche.edu> for more specific WUE information. MSU-GF COT has a limited number of WUE positions available per year. Please contact Admissions e for requirements and application materials.

Questions regarding residency status should be addressed to Admissions & Records in Student Central.

### ADMISSION REQUIREMENTS

*Please note that any documents submitted to the College during the admissions process become the property of MSU - GF COT, and must remain as part of the student’s admission and/or conduct file.*

1. **Complete and Submit Application for Admission:** Applications for admission may be obtained from Admissions & Records at the College or on the College’s website at [www.msugf.edu](http://www.msugf.edu). Prospective students are encouraged to consult with the Recruiter for information about selection of a program and financial aid before submitting their applications. Call 406-771-4414 or 1-800-446-2698 (in Montana) to arrange for an appointment with the Recruiter. Per Montana Board of Regents of Higher Education Policy 940.2 *Each campus of the Montana University System shall charge a non-refundable application fee of \$30 to each applicant for admission to a graduate or undergraduate program.*

2. **Furnish High School and College Transcripts:** Applicants to any program must submit copies of high school transcripts, high school diploma, or GED scores to Admissions & Records. High schools must be accredited by the appropriate state office of public instruction. In order to receive transfer credit, official college transcripts must be sent directly to the College from each regionally accredited college or university attended. College transcripts submitted from other institutions cannot be released or duplicated, as they remain the property of the institution.

**Furnish Immunization Records:** In order to be in compliance with Administrative Rules of Montana, updated June 2007, students born after January 1, 1957, taking seven (7) or more credits OR enrolled in a certificate/degree/transfer program must: Submit proof of TWO vaccinations against measles (rubeola) AND TWO against rubella (German measles). Immunizations must have been after 12 months of age, the second no earlier than 28 days after administration of the first dose. No measles vaccination given before 1967 is valid and no rubella vaccination given before 1969 is valid. Immunizations must be documented by a physician, registered nurse, or school official; or submit blood draw (titer test) results proving immunity for BOTH measles and rubella; or Submit documentation of having contracted measles and rubella. Documentation by a physician is required including dates of illness; or documentation of a file for a medical or religious exemption; or show proof of age, if born prior to January 1, 1957. Such evidence must be submitted before students will be permitted to register for courses. For more information about the Administrative Rules of Montana regarding immunizations, visit the links below:

- <http://arm.sos.mt.gov/37/37-28974.htm>
- <http://arm.sos.mt.gov/37/37-28977.htm>
- <http://arm.sos.mt.gov/37/37-28976.htm>

3. **Complete Placement Assessment:** Before enrolling in a math, English or biology course, all applicants are required to take the COMPASS placement test or submit their American College Test (ACT) or Scholastic Aptitude Test (SAT) scores. These tests must have been taken within the past three years. The COMPASS is a standardized test that measures an applicant's proficiency in English, reading and mathematics. The results are used to determine placement in courses. Special arrangements can be made for those applicants who have a documented or temporary disability. Arrangements for taking the COMPASS can be made by contacting Student Central at 406-771-4414 or 1-800-446-2698. There is a fee for the COMPASS test.

Students may choose to have their ACT or SAT scores sent to the College to determine placement. Please have scores sent to Admissions & Records directly from ACT or SAT. The College's ACT code is 2432, and the SAT code is 4482. The addresses and telephone numbers for ACT and SAT are:

ACT Records  
P.O. Box 451  
Iowa City, IA 52243-0451  
319-337-1313 [www.act.org](http://www.act.org)

SAT Program  
Princeton, NJ 08541  
866-756-7346 [www.collegeboard.com](http://www.collegeboard.com)

For persons wishing to attend a postsecondary institution other than Montana State University – Great Falls College of Technology, Student Central will provide, for a \$10 fee, monitoring for placement assessments. Individuals must arrange for the assessment materials to be sent to the College and for an assessment date through the Student Central staff. A forwarding address to the appropriate institution must also be provided.

## ADMISSION REQUIREMENTS FOR NON-DEGREE SEEKING STUDENTS

Non-degree seeking students must complete and submit the Application for Admission. For students taking courses with prerequisite requirements, an appropriate placement exam score, a challenge exam, or official transcripts demonstrating successful completion of prerequisite courses will be required. A one-time \$30 application fee must accompany the Application for Admission. Please note that non-degree seeking students are not eligible for financial aid.

## READMISSION TO THE COLLEGE

Students who have previously attended Montana State University-Great Falls College of Technology must reapply when they have been absent for one semester, excluding summer. Readmit applications are available in Student Central or on the College website ([www.msugf.edu](http://www.msugf.edu)).

Readmitted students must follow the graduation requirements for the catalog under which they are readmitted. Previously earned credits will be evaluated on the basis of the current degree or certificate requirements. Credits earned 5 or more calendar years earlier will be reviewed by the appropriate department chair, lead faculty, and/or Registrar, who may require repetition of any course in which the content has substantially changed.

Those students applying for readmission after serving at least one term of academic suspension must complete an Admissions Academic Progress Appeal Form along with the Application for Readmission. Such appeals will be reviewed by the Registrar's Appeal Committee before the student is informed in writing of the readmission decision.

## EARLY ADMISSION

High school students may be admitted and allowed to register for college-level courses provided they are academically prepared. This process shall be confined to students who present evidence of the ability and maturity to do college work. This admission requires that the high school principal or counselor approve participation of a student in the college level courses. High school students may earn college-level credit to be applied to a degree at Montana State University-Great Falls College of Technology or to transfer to another college or university once they graduate from high school. Course records for students will be entered and maintained on an MSU – Great Falls College of Technology transcript.

## HOME SCHOOL ADMISSION

Home school students must submit the admissions application and application fee, a notarized copy of the home school curriculum, two letters of recommendation from people other than family members, a parental approval form if the student is under 18 and immunization records if the student is degree seeking and taking more than six credits. Home school students must complete the ACT, SAT, or COMPASS test before enrolling at the College.

## NONIMMIGRANT FOREIGN STUDENTS

Montana State University-Great Falls College of Technology is authorized under federal law to enroll nonimmigrant foreign students. Each nonimmigrant foreign student is required to furnish the following documents in order to be considered for admission:

1. Completed Application for Admission accompanied by a \$30 non-refundable application fee;
2. TOEFL (Test of English as a Foreign Language) scores from an accredited testing service. A minimum score of 500 is the acceptable standard on the paper-based test, 173 on the computer-based test and 61 on the internet-based test. More information about TOEFL may be obtained from the Education Testing Service, Princeton, NJ 08540 or on the featuring websites, [www.ets.org](http://www.ets.org) and [www.toefl.org](http://www.toefl.org);

# YOUR Student Central - ADMISSIONS

3. Proof of completion of the equivalent of an American high school education with satisfactory grades. Transcripts must be evaluated by a credential evaluation service to make this determination. Please contact Admissions & Records for a list of credential evaluation services;
4. A Declaration of Finances or other present evidence of funds necessary to pay all living expenses and travel to and from the college;
5. All nonimmigrant foreign students must show a physician-validated immunization record for measles, rubella, diphtheria, tetanus, and skin testing for tuberculosis. The evidence must be presented before a student will be permitted to register;
6. Evidence of an accident and sickness insurance policy or one of equal coverage for each semester in attendance at the college.

After a nonimmigrant foreign student has completed all of the above items and returned the required forms, his/her admission file will be reviewed and a letter will be sent indicating either acceptance or denial of admission. Upon acceptance, the College will issue an I-20 Certificate of Eligibility for non-immigrant F-1 student status.

## **NEW STUDENT REGISTRATION AND ORIENTATION**

Degree seeking students will attend a STAR (STudent Advising and Registration) session with a Student Central advisor to register for their first semester of courses. These sessions are scheduled at various times for the student's convenience. Distance learning students can complete these sessions online and with a follow up phone appointment with a first semester advisor. After the student is accepted to the College they will receive a letter directing them to call to schedule their STAR session. Preferably the student will have completed placement testing (ACT/SAT or COMPASS) and have those scores sent to MSU-Great Falls if tests are taken elsewhere, prior to the STAR session. Students can call the college to sign up to take the COMPASS test if they do not have ACT or SAT scores, or transfer work in English and math. A New Student Orientation Day will be held before each fall and spring semester. Additional information on the activities of this day will be given to the students during their STAR session.

## **STUDENT IDENTIFICATION CARD**

Each student should obtain a nontransferable identification card. The identification card may be necessary when purchasing books, cashing checks in the bookstore and using the library. Students can replace a lost identification card through Student Accounts in Student Central for \$5.

## **CREDIT BY EXAMINATION**

College credit earned by currently enrolled students who successfully complete approved advanced placement examinations, CLEP and DANTES examinations, and Tech Prep articulations will have credits recorded on their academic records without an additional fee. Credit will not be awarded for courses that are prerequisites to subsequent courses that have been completed, or for courses that have been failed or previously audited.

## **COLLEGE ADVANCED PLACEMENT (HIGH SCHOOL STUDENTS)**

Applicants who have taken advanced placement courses in high school should request that the official scores be sent to Admissions & Records. Grades of 3, 4, or 5 on an advanced placement examination will be granted college credit for the appropriate courses.

## **EXPERIENTIAL LEARNING**

MSU - Great Falls College of Technology (MSUGF) recognizes that learning occurs outside of the college setting. The outcome of this learning is often the acquisition of skills and/or knowledge which may be equivalent to learning at MSUGF and other institutions of higher education. MSUGF may

award credit for this learning through the MSUGF Experiential Learning Policy. This policy is based on the Northwest Commission on Colleges and Universities (NWCCU) Policy 2.3.

- A. Credit may be granted only for documented learning which ties the prior experience to the theories and content of the relevant academic field(s).
- B. Credit may be granted only for documented learning which falls within the regular curricular offerings of the institution.
- C. Credit for prior experiential learning may be granted only at the undergraduate level.
- D. The applicability of Experiential Learning Credit toward specific degree program requirements is subject to departmental/institutional approval.
- E. Experiential Learning Credit will be based on the following evaluation methods.

- Portfolio
- Challenge Exams
- Proof of Competency

NOTE: The department chair or faculty, delegated by the department chair, will develop the criteria of the portfolio, challenge exams, and/or proof of competency.

- F. Credit for prior experiential learning should not constitute more than 25% of the credits needed for a degree or certificate.
- G. No assurances are made as to the number of credits to be awarded prior to the completion of the institution's review process.
- H. Credit may be granted only to enrolled students and is to be identified on the student's transcript as credit for prior experiential learning.
- I. Credit for prior experiential learning cannot duplicate other credit awarded.
- J. Experiential Credit will be treated in the same way as transfer credit. A "P" (pass) will be assigned, and it will not count toward the students' GPA.
- K. Materials and documents submitted for consideration of credit for experiential learning must comply with all MSUGF and Montana University System Policies. No experiential learning credit is guaranteed.
- L. Credits granted for experiential learning at MSUGF may transfer to other institutions. Students should check with the transfer institution regarding transferability.
- M. All submitted materials and documents become part of the students' academic record and will not be returned.
- N. Credit awarded for experiential learning will become part of the students' academic transcript.
- O. The student is responsible for providing the appropriate documentation as required by the guidelines and/or criteria established by the faculty member, program director, or department chair for the award of credit for experiential learning.
- P. Students will be assessed an experiential learning fee for each course substitute attempted through the award of Experiential Learning Credit. This fee will be 1/3 of the cost for the tuition of the course had the student enrolled in it through traditional means.
- Q. Experiential learning credits do not count towards enrollments in evaluating financial aid status.

The following checklist will help guide faculty and students through the Experiential Learning evaluation process and the required form.

1. A student interested in earning experiential learning credit for a particular course or courses should consult their advisor and/or the faculty member (faculty sponsor) responsible for the courses in question. Upon consultation and initial consent of the faculty sponsor and the student's advisor (if applicable), complete the "Student Information" and "Experiential Learning Course Substitution Information" portions of the form.
2. Next, the faculty sponsor and student will collaboratively decide which evaluation process (portfolio, proof of competency, or challenge exam) will be used for the evaluation of the student's prior learning to illustrate equivalency of the courses being substituted. Check the appropriate box in the "Evaluation Process for Assessment of Award" section.
3. Collaboratively the faculty sponsor and student will then identify the criteria, components, materials, documents required, and activities that must occur to complete the evaluation process. The faculty sponsor will provide the student with documentation outlining objectives, timelines, materials needed, and other pertinent information to establish clear expectations for the process.
4. Next, print the form with the top three portions completed. The student must sign and date in the appropriate areas.
5. The faculty sponsor and advisor (if applicable) must then confer and agree to approve the plan for assessing the student's prior learning for the award of experiential learning credit. If both approve, they must print their name, sign and date the form.
6. The faculty sponsor then submits the form to the Registrar. Upon reviewing the form for accuracy and completion, the Registrar will assess the student fee associated with this process, sign and date the form, and return to the faculty sponsor.
7. Once the student completes and submits a challenge test, proof of competency, or a student portfolio for review, the faculty sponsor will make a determination of whether to approve the award of credit for the student's experiential learning. The faculty sponsor will then confer with the department chair and they will make their recommendation. If both are in agreement, each will print their names, sign and date the form.
- H. Next, the faculty sponsor submits the completed form, criteria for the assessment process, and supporting documents (e.g. challenge test score, documents for proof of competency, or portfolio) to the Registrar. The Registrar will notify the student of the successful award.
9. Finally, the Registrar reviews the completed form and submitted materials. If all are in order and both the faculty sponsor and department chair have agreed to approve the award of credit for experiential learning, the Registrar will post the award to the student's academic transcript and notify the student of the completed process.

## COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) AND DANTES

Montana State University-Great Falls College of Technology awards credit toward graduation for successful performance in certain subject examinations of the CLEP and DANTES programs. Students may arrange to take these examinations at designated centers. Passing grades and the awarding of credit is determined by the American Council on Education (ACE) credit recommendations.

MSU – Great Falls College of Technology

Test identification numbers:

CLEP .....	7691	DANTES.....	9472
ACT .....	2432	SAT .....	4482

## TECH PREP CREDIT

Tech Prep provides high school students an opportunity to earn credits toward one-year or two-year certificates or degrees at Montana State University-Great Falls College of Technology while still in high school. This is a cooperative program carried out under articulation agreements between secondary and postsecondary institutions that have made a commitment to the program. Counselors and instructors at participating high schools have information available for interested students.

## TRANSFER FROM OTHER INSTITUTIONS

Credits from other regionally accredited postsecondary institutions may be accepted as they apply to the established course requirements of Montana State University - Great Falls College of Technology under the following guidelines:

- The transferring student must initiate the request for evaluation of credit during the admission procedure by furnishing an official transcript from the transferring institution(s) and the necessary materials, including copies of the appropriate catalog descriptions or course syllabi, to Admissions & Records. Official transcripts must be sent directly by the issuing institution to the following address:  
Admissions and Records  
MSU – Great Falls College of Technology  
2100 16th Ave S  
Great Falls, MT 59405
- Grades less than a "C-" for previous course work will not be considered for transfer credit. Course work taken more than 5 years prior to transfer request may not be accepted. If transfer credit cannot be granted, the student has the option of challenging a course or courses through the Experiential Learning policy.
- Transfer credit will be accepted only as it applies to the student's declared program of study.
- Students will be awarded a certificate/degree upon satisfactory completion of all program requirements, provided 25% of the credits required in the degree related program has been completed at MSU – Great Falls College of Technology.
- Transfer credit will be posted on the transcript for accepted transferred course work.
- Transfer grades are not figured in the grade point average (GPA).
- Students who wish to appeal a decision regarding acceptance of transfer credit should contact Admissions & Records to receive information on the appeal process. Students may be asked to provide course descriptions and/or syllabi for an appeal.

## TRANSFER TO OTHER INSTITUTIONS

Montana State University - Great Falls College of Technology is accredited by Northwest Commission on Colleges and Universities. For more information regarding the transferability of courses to other institutions, students should contact the institution they are planning to attend.

For transfer to another Montana school, a student may complete a Request for Transmittal of Application Materials form in order to have the contents of his/her admission file forwarded to the transfer school. There is an \$8 fee for this service.

The College offers a number of transfer options including the Montana University System Transferable Core and the Associate of Science and Associate of Arts degrees. In addition, students may transfer under one of the articulation agreements MSU – Great Falls College of Technology has with specific colleges and universities.

# YOUR Student Central - ADMISSIONS

## ADVISING

As students are admitted or readmitted to the College, they are advised by Student Central advisors. These advisors assist students in understanding college policies and procedures, choosing a program of study, choosing first semester classes, and understanding College resources.

Students continuing on to their second and subsequent semesters are assigned a faculty advisor. Faculty advisors act as mentors, helping to guide students through the curriculum in their program. A faculty advisor will be a student's main contact for academic and program advice. However, they may refer a student to Student Central advisors at times for specific assistance.

## REGISTRATION

Registration for students is available via Banner Web/My Info on the Internet. Continuing students are defined as students who have been continuously enrolled (excluding summer) at MSU – GF College of Technology.

Registration information and dates for new and continuing students is available on the Academic Calendar posted on the College website.

**Banner Web/My Info** [www.msugf.edu](http://www.msugf.edu)

To register, check grades, transcripts and course schedules, go to "Banner Web/My Info" then Login to Secure Area

Financial aid, class schedules, term registration, billing information, and payment options are accessible through Banner Web/My Info.

Students experiencing any problems accessing or using Banner Web/MyInfo should contact Student Central.

## TUITION AND FEES POLICY

### DEFERRED PAYMENT PLAN

The deferred payment plan is an installment loan available, for the fall and spring terms, for qualified applicants who are unable to make full payment of current semester tuition, fees, and other charges on the regular fee payment day. This plan is available to all qualifying students through Student Accounts. Installment payments and applicable fees are collected and processed by Student Accounts. The Student Accounts office is located in Student Central.

### LATE FEE

A \$40.00 late fee will be assessed if fees are not paid by the payment deadline each semester when there is not financial aid or a third party contract confirmed.

## FEE REFUNDS

### ~ Withdrawal from the College

Per Montana Board of Regents of Higher Education Policy 940.7: *Unless otherwise required by the Higher Education Act of 1965, as amended, refunds of fees in the event of withdrawal from school are authorized according to the following procedures. The registration fee is non-refundable.*

Students withdrawing from Montana State University-Great Falls College of Technology are refunded the fees paid in accordance with the following schedule established by the Board of Regents. In order for a student to receive a refund under the Board of Regents policy, an official withdrawal form must be on file in the Registrar's Office:

### Fall & Spring Semester:

Days of Instruction*	Percent Refunded
Registration day.....	100
1-5 .....	90
6-10 .....	75
11-15 .....	50
16-on .....	0

*These dates are pro-rated for the summer term(s)*

\* Days of instruction begin with the first day of classes for a term and conclude on the 15th day, which is the deadline to drop/delete courses.

**The Registration Fee and Application Fees are Nonrefundable per Montana Board of Regents of Higher Education Policies 940.2 and 940.7**

### ~ Refund Policy for Courses Numbered 116 and 199

All students wishing to drop or withdraw from courses numbered 116 and 199 are required to fill out an Add/Drop or Withdrawal Form. These forms are available at the Office of Outreach & Workforce Development.

- If a class is dropped at least **three working days** prior to the first day of class, the full amount of tuition and fees will be refunded. For credit-bearing courses (those with a course number of 116), the \$30 semester registration and \$30 one-time application fee will not be refunded.
- If a class is not dropped at least three working days prior to the first day of class or the student enrolls and does not attend, the full amount of tuition and fees will be assessed. In certain instances exceptions to this policy may occur for drops occurring less than three working days prior to the first day of class. To be considered for an exception, an appeal stating the justification for this exception must be made in writing to the Registrar.
- If the Division of Outreach & Workforce Development decides to cancel a class, students will receive a 100% refund on all tuition and fees.

See Course Descriptions section of this catalog for more information on these courses.

### CHANGES IN CREDIT LOAD AFTER PAYMENT OF FEES

Students adding courses after payment of fees are required to pay additional fees created by the change in credit load.

Students dropping classes (but not withdrawing) will receive a 100 percent refund on courses dropped before the end of the 15th class day. Refunds will not be made after the 15th class day. This schedule applies only to fall and spring semesters. For the summer withdrawal schedule, please see the academic calendar for that term.

Refunds are processed approximately five weeks after the start of a semester and mailed to the student's permanent address.

**TUITION AND MANDATORY FEES SCHEDULE**

The Montana Board of Regents of Higher Education has approved the following tuition and mandatory fees schedule for the 2008-2009 academic year beginning Fall Term 2008. Other tuition and mandatory fee schedules are available online at: [www.msugf.edu/adm\\_records/adm\\_records/TuitionFees.htm](http://www.msugf.edu/adm_records/adm_records/TuitionFees.htm)

Tuition and fees are based on credit hours and are paid by the student each semester. Tuition may increase by Board of Regents action at a future date.

Semester Credit Hours	Registration Fee	Resident Tuition	Building/Maintenance Fee	Computer Fee	Equipment Fee	Network Services Fee	Library Fee	Student Government	Total Resident Tuition & Fee	Additional Nonresident Tuition	Total Resident Fee
1	\$30.00	\$104.00	\$5.77	\$11.01	\$2.88	\$2.68	\$1.55	\$12.00	\$169.89	\$245.52	\$415.41
2	\$30.00	\$208.00	\$11.54	\$15.02	\$5.76	\$5.36	\$3.10	\$12.00	\$290.78	\$491.05	\$781.83
3	\$30.00	\$312.00	\$17.31	\$19.03	\$8.64	\$8.04	\$4.65	\$12.00	\$411.67	\$736.57	\$1,148.24
4	\$30.00	\$416.00	\$23.08	\$23.04	\$11.52	\$10.72	\$6.20	\$12.00	\$532.56	\$982.09	\$1,514.65
5	\$30.00	\$520.00	\$28.85	\$27.05	\$14.40	\$13.40	\$7.75	\$12.00	\$653.45	\$1,227.62	\$1,881.07
6	\$30.00	\$624.00	\$34.62	\$31.06	\$17.28	\$16.08	\$9.30	\$12.00	\$774.34	\$1,473.14	\$2,247.48
7	\$30.00	\$728.00	\$40.39	\$35.07	\$20.16	\$18.76	\$10.85	\$12.00	\$895.23	\$1,718.66	\$2,613.89
8	\$30.00	\$832.00	\$46.16	\$39.08	\$23.04	\$21.44	\$12.40	\$12.00	\$1,016.12	\$1,964.19	\$2,980.31
9	\$30.00	\$936.00	\$51.93	\$43.09	\$25.92	\$24.12	\$13.95	\$12.00	\$1,137.01	\$2,209.71	\$3,346.72
10	\$30.00	\$1,040.00	\$57.70	\$47.10	\$28.80	\$26.80	\$15.50	\$12.00	\$1,257.90	\$2,455.23	\$3,713.13
11	\$30.00	\$1,144.00	\$63.47	\$51.11	\$31.68	\$29.48	\$17.05	\$12.00	\$1,378.79	\$2,700.76	\$4,079.55
12-25	\$30.00	\$1,248.00	\$69.24	\$55.12	\$34.56	\$32.16	\$18.60	\$12.00	\$1,499.68	\$2,946.28	\$4,445.96

## RETURNED CHECK POLICY

Individuals presenting checks to the MSU - Great Falls College of Technology, which the bank subsequently refuses to honor, are required to reimburse the College for the amount of the check plus any fee charged by the bank for processing the dishonored check. Individuals (faculty, staff, and students) will be notified in writing of the dishonored check(s) and the amount needed to clear the item(s). Personal checks may not be used to clear dishonored checks.

Dishonored checks presented by students will be added to their account balance. Unpaid balances may result in a 'Hold' being placed on the student's account. This 'Hold' will prevent the student from registering for further semesters at this or any other Montana State University campus.

Individuals presenting two dishonored checks within a calendar year to the college will be prohibited from writing further checks payable to the College during that calendar year even after clearing the two dishonored items.

This applies to all checks payable to the College or a College entity including the library, bookstore, cafeteria, and dental clinic.

## STUDENTS OWING DEBTS

The College reserves the right to deny registration access to a student who has an overdue debt to any Montana State University unit. Students whose tuition and fees remain unpaid may have their registration for classes cancelled for the current semester. Transcripts, certificates, and degrees will be withheld from any student owing tuition, fees, or charges to a Montana State University unit. In the event a student has not returned books and/or materials belonging to this college or any other Montana University System unit, transcripts, certificates, and degrees may be withheld. The MSU - Great Falls College of Technology may refer past due student accounts to the Montana Department of Revenue for collection action.

## BILLING

The College has moved to paperless billing, as well as online bill payment by credit card or electronic check. Academic Progress

## ACADEMIC PROGRESS

Academic progress standards are as follows:

- All students enrolled in credit bearing courses at Montana State University - Great Falls College of Technology are required to maintain a 2.0 cumulative grade point average (CGPA). Students with less than a 2.0 CGPA at the end of any academic term will be notified by the Registrar that they have been placed on academic probation for the following academic term. If, at the end of a subsequent term, they meet the required 2.0 CGPA, they are removed from academic probation. Academic probation serves to notify students that the quality of their work is below an acceptable level and that the continuation of unsatisfactory work during their next semester of enrollment will result in academic suspension. Students on probation will be limited to 13 credits during the probationary period.
- All students enrolled in credit bearing courses who receive less than a 2.0 GPA and have a CPGA below a 2.0 for the second consecutive academic term will be suspended from the College. Students on academic probation who earn at least a 2.0 grade average for the semester without raising their cumulative grade average to the required minimum will remain on academic probation.

- Following suspension, students will not be considered for reinstatement until at least one semester (excluding summer) has passed. Readmission must be initiated through Admissions & Records by completing the Application for Readmission and the Admission Academic Progress Appeal Form. If the appeal for readmission is approved, students will be readmitted on probationary status, limited to 13 credits in the fall and spring terms and seven credits in the summer term, and will be re-enrolled under the current catalog requirements for graduation.
- Transfer applicants may be admitted on academic probation based upon their academic standing at previous institutions.
- Readmitted applicants may be admitted on academic probation based upon their cumulative grade point average (CGPA) and/or academic standing when last in attendance.
- Students who have been placed on academic probation or suspension may appeal in writing to the Registrar for review of circumstances.

## ADDING AND DROPPING COURSES

Students may add courses on Banner Web/My Info up to the end of the fifth day of fall and spring semesters. After the fifth day faculty must approve any add requests.

Students may drop one or more courses on Banner Web/My Info with no grade up to the end of the 15th day of fall and spring semesters. Although no refund will be given, students may continue to drop one or more courses with faculty approval with a grade of "W" prior to the end of the published deadline. See the tuition and fees section of the catalog for further information.

These deadlines are pro-rated for the summer term(s).

In all courses for which a student fails to complete all requirements and for which no formal drop (withdrawal) has been filed in Admissions & Records, the final grade will be the grade the student has earned at the end of the course.

The following steps must be completed in order to add a course after the fifth day of the term or drop a course after the 15th day of the term.

1. Obtain an official drop or add card from Admissions in Student Central
2. Complete the card and secure the necessary faculty signature(s)
3. Return the card to Admissions in Student Central

## WITHDRAWAL FROM THE COLLEGE

Students planning to withdraw from all courses must consult a Student Central advisor. The advisor will provide important information regarding the way a withdrawal will affect financial aid eligibility, tuition refunds, readmission to the college and grade point average. Courses the student is enrolled in at the time of withdrawal from the college will be entered on the student's transcript in accordance with the grading policy in effect.

## ATTENDANCE

Absences are exclusively within the purview of the faculty. When a student enrolls in a course, he/she enters into a contractual agreement with faculty for the duration of the course. Both the student and the faculty are expected to honor the specified terms of that agreement. It is important, therefore, for the student to understand the particular attendance requirements in each course. Generally, faculty communicate these requirements to students through the course syllabus and/or verbally during the first or second class meeting.

# Student Central - ACADEMIC INFORMATION

## **COURSE NUMBERING SYSTEM**

Courses numbered below the 100 level cannot be used to satisfy core requirements or general elective requirements and do not count toward graduation requirements, except when required in certificate programs. They do count as credits required to meet financial aid satisfactory academic progress requirements if enrollment is required based on placement test scores.

A unit of credit at MSU – Great Falls College of Technology is defined as three hours of student work per week for a 15 week semester, or an equivalent number of work hours in an instructionally related activity, and/or student study time. Academic credit is awarded based upon this definition, which is consistent with the glossary definition of a credit unit as defined by the Northwest Commission on Colleges and Universities.

## **COURSE SUBSTITUTION**

Students may request a substitution for a course if they have previously completed a college course in which the subject matter closely parallels that of the course for which they request the substitution. The department chair, student’s advisor and the Registrar must approve all substitutions. In no instance will a reduction be made in the number of credits required for completion of a program.

## **COURSE WAIVER**

A course may be waived if the student has previously completed equivalent work. All waivers must be approved by the student’s advisor, department chair, and the Registrar. College credit will not be given for a waiver. In no instance will a reduction be made in the number of credits required for completion of a program.

## **DEGREES OFFERED**

### **CERTIFICATE OF APPLIED SCIENCE (C.A.S.)**

The Certificate of Applied Science (CAS) recognizes a short program of study designed to prepare the student for entry-level employment in a specific technical field. The Certificate of Applied Science is comprised of 30 - 45 credits; with rare exceptions. Students should be able to complete the Certificate program in one calendar year or less if they are academically prepared in math and English. The general education course work in a Certificate of Applied Science often has an applied, rather than an academic focus.

### **ASSOCIATE OF APPLIED SCIENCE (A.A.S.)**

The Associate of Applied Science (AAS) degree is awarded in specific technical career fields. This degree is designed to prepare students for immediate entry into employment but may be fully or partially transferable to programs at selected four-year institutions.

The Associate of Applied Science degrees must be comprised of at least 60 but no more than 72 credits. For students entering these degrees prepared for the math and English required, the Associate of Applied Science degree requires at least two academic years to complete. A main difference between this degree and the Certificate of Applied Science is the added general education course work required.

Montana State University - Great Falls College of Technology offers AAS degrees in both the Business/Technology and Health Science areas. Specific requirements for each program are listed in the program section of this catalog.

### **ASSOCIATE OF ARTS (A.A.)**

The Associate of Arts degree is a general transfer degree indicating that the student has completed a course of study equivalent to the first two years of a bachelor’s degree. This degree does not officially include a major or minor course of study. For example, a student who plans to

emphasize history receives the Associate of Arts degree, not an Associate of Arts in History, for example.

### **ASSOCIATE OF SCIENCE (A.S.)**

The Associate of Science degree is a general transfer degree indicating that the student has completed a course of study equivalent to the first two years of a bachelor’s degree. This degree does not officially include a major or minor course of study. For example, a student who plans to emphasize mathematics receives the Associate of Science degree, not an Associate of Science in Mathematics, for example.

Baccalaureate requirements vary considerably among and within institutions. It is strongly recommended that students pursuing a general program of study for their Associate of Science or Associate of Art degrees carefully select courses that will meet specific institution program requirements for a baccalaureate degree. A current catalog of the selected institution should be consulted. Students should work closely with an academic advisor at the transfer institution.

## **EVALUATION OF COURSES**

Students are provided the opportunity to evaluate each of the courses they complete at the College during the final four weeks of each course.

Students are asked to approach the serious task of course evaluation professionally and positively. All faculty look forward to input from students in their courses. Faculty utilize the input from their students to improve or modify courses.

## **GRADING**

The following table outlines the grading system used at Montana State University-Great Falls College of Technology:

<b>Grades</b>	<b>Quality of Work</b>	<b>Grade Points for Each Credit</b>
A .....	Excellent .....	4.0
A- .....	.....	3.7
B+ .....	.....	3.3
B .....	Above average .....	3.0
B- .....	.....	2.7
C+ .....	.....	2.3
C .....	Average.....	2.0
C- .....	.....	1.7
D+ .....	.....	1.3
D .....	Passing .....	1.0
F.....	Failing .....	0
P .....	Pass.....	0
AU.....	Audit.....	0
CR .....	Credit .....	0
W .....	Withdraw .....	0
I.....	Incomplete .....	0
NC.....	No Credit .....	0
NR.....	Not Recorded .....	0

## **AUDIT**

Registered students may, with the permission of faculty, enroll in a course as an auditor for no credit. A student must decide to audit a course by the Add deadline of the term. Auditors pay the same fees as students enrolled for credit and are expected to follow the attendance guidelines set forth in the course. If attendance guidelines are not followed, the student may be issued a failing grade. If attendance guidelines are followed, the student will receive a grade of AU.

# YOUR Student Central - ACADEMIC INFORMATION

## INCOMPLETE

An Incomplete (I) grade is issued at instructor discretion when student course work has been satisfactory up until the final few weeks of a semester, but unavoidable mitigating circumstances have prevented the student from completing the course. After consulting with the instructor of the course, a student must make a formal request for an Incomplete grade by completing the Request for an Incomplete Grade form, stating what unavoidable mitigating circumstance(s) prevented completion of the work and proposing the conditions under which the work will be completed. If a request form does not accompany the final grade, the student will be issued a Not Recorded (NR) grade until the proper paperwork is completed and submitted to the Registrar. If the instructor approves the request, the student will have until the end of the following semester to make up the Incomplete. If a student fails to make up an Incomplete within the allotted time, the Incomplete grade will be converted to an "F". The department chair will approve all Requests for Incomplete Grades before they are submitted to the Registrar for posting. The department chair must be given all information necessary to do final grading for the student as backup for the instructor in case he/she is not available to do the grading at the appropriate time.

## PASS/FAIL POLICY

As a general policy, courses at Montana State University - Great Falls College of Technology are graded with the letter grades A, A-, B+, B, B-, C+, C, C-, D+, D, D- and F. However, certain courses, as indicated in the catalog, are offered only on a pass/fail basis for ALL students registered in the course. A passing (P) grade is equivalent to a grade of "C-" or better. Students receiving "P" grades may not request a change to a letter grade.

## COURSE REPEAT

Courses may be repeated to increase one's knowledge and/or grade point average. The original grade, as well as subsequent grade(s) in the course, is reflected on the academic transcript. However, the grade and grade point value for the repeated course will replace the earlier grade and grade point value in the cumulative totals. The grade and accompanying information for a repeated course will be posted on the student's academic transcript for the semester during which the repeated course was completed. Course repeats will not affect academic progress as it relates to recipients of Federal and State financial aid.



## GRADE POINT AVERAGE (GPA)

A student's level of academic performance is determined by the grade point average (GPA). To calculate the GPA the total number of grade points is divided by the total number of completed credits.

## GRADE REPORTS

Mid-term grades are available on Banner Web/My Info after the half way point of spring and fall semesters. Final grades are available on Banner Web/My Info one week after the end of the term.

## ACADEMIC RECORDS

Appeals regarding academic records must be addressed within three years of course enrollment. Any appeals filed more than three years after the date of last attendance will not be considered. Note: This policy applies to appeals for retroactive withdrawals and tuition refunds only. For policy on academic performance appeals, please see the Academic Complaints section of this catalog.

## CHANGE OF GRADE

A change of grade may be submitted to the Registrar for a variety of reasons. All grade changes must come from the instructor or department chair. If, after consulting with the instructor, questions still remain about the changing of a grade, please refer to the Academic Complaint Procedure.

## TRANSCRIPT OF RECORD

Walk-in requests for transcripts should be turned in to Student Accounts in Student Central. If the student requesting a transcript has an unpaid financial obligation to any Montana State University campus, the request will not be processed until the bill has been paid and the student has notified Admissions & Records of payment.

Please note that appeals for adjustments to the official transcript records will be reviewed beyond three years of the last date of attendance.

During most of the year, requests for transcripts will be processed within three to five working days after being received by Admissions & Records. Requests received during the last week of a semester will be held until final grades are processed.

Transcripts are sent only at the written request of the student. The request must include a signature, and can be paid with cash, check, money order, or credit card. Requests should be addressed to:

Admissions & Records - Transcripts  
MSU – Great Falls College of Technology  
2100 16th Ave S  
Great Falls, MT 59405

The first request for an official transcript will be processed without a fee; thereafter the processing fee for each transcript is \$3.00.

Transcripts/records submitted from other institutions/agencies cannot be released or duplicated, as they remain the property of the institution/agency.

Students attending Montana State University – Great Falls College of Technology after 1987 can access an unofficial transcript at our website: [www.msugf.edu](http://www.msugf.edu) by clicking "Banner Web/My Info" and logging into the secure area.



## **GRADUATION**

Montana State University-Great Falls College of Technology students follow the catalog in effect when they began their enrollment at the College as long as that enrollment has been continuous or may elect to follow any subsequent catalog. If a student is absent for one or more semesters, the catalog in effect at the time of readmission governs the student's graduation requirements. Students must pass all required courses and have an overall grade point average of 2.0 to graduate from Montana State University - Great Falls College of Technology.

Each program in the Health Science Department has specific requirements for matriculation and graduation. Students are informed of other specific program policies and requirements both at the time of their program orientation and throughout their educational experience.

Identified programs in the Business and Technology Department have specific requirements for matriculation and graduation. Courses that require a grade of "C-" or above are designated for each program in the program section of this catalog.

A student must submit a formal application for graduation by the published term deadline. Applications can be obtained from Student Central or online at [www.msugf.edu](http://www.msugf.edu). A \$25 non-refundable graduation fee is due upon submission of the application to Student Accounts. Application deadlines are published in this catalog and on the Academic Calendar located on the College's website. Students who fail to submit an application for graduation will not receive a certificate/degree. Students completing more than one certificate or degree must submit an application and \$25 fee for each degree and certificate.

Students will be awarded a certificate/degree upon satisfactory completion of all program requirements, provided that 25% of the course work required in the degree program has been completed at MSU – Great Falls College of Technology.

The commencement ceremony is held each May, at the conclusion of the spring semester. Caps and gowns can be purchased through the bookstore for a fee. Graduation announcements are also available for purchase through the bookstore.

Diplomas can be replaced at the request of the student. The cost of replacing a certificate, diploma, and/or cover is \$10.

## **HONORS**

Montana State University-Great Falls College of Technology recognizes students' academic achievements according to the following standards:

### **HONOR ROLL**

The honor roll includes students who earn 12 or more credits with no Incomplete grades in Non-Pass/Fail courses at the 100 level or above, and who have a grade point average of 3.49 - 3.25 for that semester.

### **DEAN'S LIST**

To be eligible for the Dean's List, a student must earn 12 or more credits in Non-Pass/Fail courses at the 100 level or above in one term, have a semester grade point average of 3.5 or above, and not have any Incomplete grades. If Incomplete grades changed to passing grades affect Dean's List eligibility, the student may request a letter noting Dean's List recognition.

### **PHI THETA KAPPA**

A chapter of Phi Theta Kappa, an international honor society for two-year colleges, was chartered at MSU – Great Falls College of Technology in 1998. Membership is based primarily on academic achievement. Students who meet the criteria are invited to join each semester. To be eligible, students must be full-time, must have completed 12 semester credits, and must have a cumulative grade point average of 3.5.

Membership in Phi Theta Kappa offers much more than a mere certificate of membership. The organization offers opportunities for scholarships, intellectual enrichment, and personal development through programs based on the four hallmarks of Scholarship, Leadership, Service, and Fellowship.

For further information, contact the chapter advisor: Roger Pepper.

### **GRADUATION HONORS**

Upon successful completion of program requirements, a graduating student with a cumulative GPA of 3.75 or higher will receive highest honors, and a graduating student with a cumulative GPA between 3.5 and 3.749 will receive honors.

# YOUR Student Central - FINANCIAL AID

Financial Aid Staff will help you identify federal, state and private programs to fund your college education. A variety of grants, loans, work study employment, and scholarships are available to MSU – Great Falls College of Technology students.

## DISABILITY DISCLOSURE STATEMENT

The Financial Aid Office may not award financial assistance in the form of loans, grants, scholarships, special funds, subsidies compensation for work, or prizes to students on the basis of race, color, national origin, sex, or handicap, except to overcome the effects of past discrimination. The Financial Aid Office may administer sex restricted financial assistance where the assistance and restriction are established by will, trust, bequest, or any similar legal instrument, if the overall effect of all financial assistance awarded does not discriminate on the basis of sex. Materials and information used to notify students of opportunities for financial assistance may not contain language or examples that would lead applicants to believe the assistance is provided on a discriminatory basis. If the Financial Aid Office's service area contains a community of national origin minority persons with limited English language skills, such information must be disseminated to that community in its language.

## ELIGIBILITY REQUIREMENTS

All recipients of federal financial aid at MSU - Great Falls College of Technology must meet the following general eligibility requirements:

- Have financial need as determined by a need analysis formula provided through information on the Free Application for Federal Student Aid (FAFSA);
- Be a U.S. citizen or an eligible noncitizen;
- Have a high school diploma or GED. Home school students must contact the Financial Aid Office;
- Be enrolled as a regular student in courses leading to a financial aid eligible certificate or degree program generally at least half time (some professional certifications and certain one credit seminars and workshops are not eligible for financial aid);
- Maintain Satisfactory Academic Progress in accordance with the policy of the Financial Aid Office;
- Not owe a refund on a federal grant or be in default on any Title IV loan;
- Register with Selective Service, if required;
- Agree to use any federal student aid received solely for educational purposes;
- Comply with the requirements of the Anti-Drug Abuse Act.

## ASSISTANCE IN APPLYING

Assistance is available to prospective students applying for financial aid. In addition, financial aid counseling for new students is an integral part of the admissions and orientation process. Once enrolled, students may receive counseling and assistance as needed. For assistance, please call 406-771-4334 or 1-800-446-2698 (in Montana), or write Financial Aid, Montana State University - Great Falls College of Technology, 2100 16th Avenue South, Great Falls, MT 59405, or email [finaid@msugf.edu](mailto:finaid@msugf.edu)

## PRIORITY DEADLINES

Priority deadlines are set to inform students when they need to apply for financial aid each year. REMEMBER: Every student must re-apply for financial aid each academic year.

New students beginning their attendance in the fall semester should apply for financial aid by July 1. New students beginning their attendance in the spring semester should apply for financial aid by November 1. All students attending the summer semester should apply by March 1.

Although the deadlines for fall, spring and summer are set in July, November, and March, some of the federal and state financial aid programs with limited funding may already be fully expended for the award year. An applicant should apply by the March 1 priority date to ensure consideration for all federal funding available for the award year.

Students may apply after these deadline dates; however, they may not have their financial aid awarded in time for the beginning of that semester. If a student's aid process is not complete when institutional charges are due, the student must pay his/her institutional charges and be reimbursed with his/her financial aid eligibility once the financial aid process has been completed and aid is received.

## APPLICATION PROCESS

Students seeking federal financial aid (which includes grants and loans) must complete the Free Application for Federal Student Aid (FAFSA) which is available online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). If the applicant wishes to complete the paper form, he/she should contact the Financial Aid staff for instructions. If the applicant submits an electronic FAFSA, a signature page must be mailed or the application must be signed electronically with a PIN number. Parent signatures are also required for dependent students. A pin number from the Department of Education for financial aid purposes may be obtained by going to this website: [www.pin.ed.gov](http://www.pin.ed.gov). As a result of completing a FAFSA, an applicant will receive a federal Student Aid Report (SAR) in the mail or online. An electronic version of the SAR is automatically sent to the schools listed on the FAFSA.

Students receiving financial aid must also submit copies of the proper federal income tax forms and any other information requested by the Financial Aid Office.

## ELECTRONIC NOTIFICATION

The Financial Aid Office at Montana State University – Great Falls College of Technology may use electronic notification for any official correspondence to financial aid applicants. All applicants should supply a valid email address and check it frequently for financial aid correspondence. Students may view financial aid status at any time by logging on to Banner Web/MyInfo.

## FINANCIAL AID PROGRAMS

The following federal and state programs are available at Montana State University - Great Falls College of Technology. Students apply for each of these through the FAFSA application unless otherwise noted.

### FEDERAL ACADEMIC COMPETITIVENESS GRANT (ACG)

A federal ACG grant is a form of gift aid for full time, Pell grant eligible students enrolled in an eligible program of study who have completed a rigorous program of study in high school (as determined by the Department of Education). Eligible students must have graduated from high school after 1/1/05 and must submit a complete high school transcript to the Registrar. The amount of the grant is determined by grade level and available funding.

### FEDERAL PELL GRANT

A federal Pell grant is a form of gift aid for students enrolled in an eligible program of study, who do not already have a bachelor's degree. The amount of the federal Pell Grant is determined by the Estimated Family Contribution on the federal Student Aid Report, the number of credits in which the student is enrolled, and the student's educational budget for the award year. Federal Pell Grant disbursements are made after the drop/add period for each term. A student's enrollment status for federal Pell Grant eligibility is based on credits carried at the end of the drop/add period for the term.

## **FEDERAL SUPPLEMENTAL EDUCATION OPPORTUNITY GRANTS (FSEOG)**

Federal Supplemental Educational Opportunity Grants are a form of gift aid. Student eligibility is determined by completing the FAFSA. Preference for the FSEOG is given to students who have federal Pell Grant eligibility and who are early applicants. Funding is limited and is awarded on a first-come, first-served basis.

## **FEDERAL WORK-STUDY**

The Federal Work-Study Program offers part-time employment for eligible students. Students seeking eligibility under this program must complete the FAFSA. A student's earnings are limited to the amount awarded through the Financial Aid Office. Federal Work-Study students are paid every other week according to the State of Montana payroll schedule. Federal Work-Study jobs may be on campus or in an off campus community service organization. Funding is limited and is awarded on a first-come, first-served basis.

## **GOVERNOR'S POSTSECONDARY SCHOLARSHIP - NEED BASED**

Governor's Postsecondary Need Based Scholarships are available to entering freshmen who demonstrate unmet need as determined by the FAFSA, are Montana residents, and are degree seeking. The amount of the award is \$1000 and may be renewable for up to two years. Funding is limited and recipients are selected by the Financial Aid Office based on annual funding levels.

## **MONTANA BAKER GRANT (MTAP)**

The Montana Baker Grant is available to Montana students who have enrolled full time and earned a predetermined amount of income the previous year. Receipt of other aid may affect eligibility. Grants are between \$100-\$1000 depending on an individual's eligibility. Funding is limited and is awarded on a first-come, first-served basis.

## **MONTANA HIGHER EDUCATION GRANT (MTHG)**

Montana Higher Education Grants are a federal and state form of gift aid. Students must have financial need and be a Montana resident. Student eligibility is determined by submitting the FAFSA. Students with federal Pell Grant eligibility and who apply early have preference. Funding is limited and is awarded on a first-come, first-served basis.

## **STATE WORK-STUDY**

The state Work-Study Program offers part-time employment for eligible students who are Montana residents. Students seeking eligibility under this program must complete the Free Application for Federal Student Aid (FAFSA). A student's earnings are limited to the amount awarded through the Financial Aid Office. State Work-Study students are paid every other week according to the State of Montana payroll schedule. State Work-Study positions are all located on campus. Funding is limited and is awarded on a first-come, first-served basis.

## **FEE WAIVERS**

Fee waivers are administered by the Financial Aid Office. For all students, inquiries should be directed to the Financial Aid Office. All fee waivers are based on financial need as a criterion whenever possible, except for honor scholarships for National Merit Scholarship semifinalists, high school honor scholarships, and faculty and staff fee waivers. Fee waivers do not require repayment. Fee waivers are state funded and require Montana residency status with the exception of the faculty/staff fee waiver.

## **HONORABLY DISCHARGED VETERANS' FEE WAIVER**

Tuition shall be waived for certain honorably discharged persons who served with the United States Armed Forces in specified time periods and are currently residents of the State of Montana according to the Board of Regents residency policy. A provision of this policy states that the fee waiver shall not apply to persons who qualify under federal laws

granting educational benefits to veterans. Application forms are available from the Financial Aid Office or the Financial Aid website at [www.msugf.edu/finaid/feewaivers.htm](http://www.msugf.edu/finaid/feewaivers.htm). Recipients of this fee waiver are subject to satisfactory academic progress requirements. Fee waivers are available for War Orphans and dependents of prisoners of war. Direct inquiries to the Financial Aid Office.

## **INDIAN STUDENT FEE WAIVER**

This waives tuition each semester and is awarded by the Financial Aid Office to students who submit documentation that they are at least 1/4 American Indian, complete an affidavit stating that they have been bona fide residents of the State of Montana for at least one year prior to enrollment in the Montana University System, and demonstrate financial need by completing the FAFSA. Applicants for this fee waiver must file a FAFSA, complete their financial aid file, and complete the fee waiver application available in the Financial Aid Office or online at [www.msugf.edu/finaid/feewaivers.htm](http://www.msugf.edu/finaid/feewaivers.htm). Recipients of this fee waiver are subject to satisfactory academic progress requirements.

## **MONTANA SENIOR CITIZEN FEE WAIVER**

Tuition shall be waived for students classified as in-state residents for fee purposes and who are at least 65 years of age at time of registration. To apply, students must submit a copy of their driver's license or state ID card to the Financial Aid Office, along with the Senior Citizen Fee Waiver application.

## **SURVIVING DEPENDENTS OF MONTANA FIREFIGHTERS/PEACE OFFICERS FEE WAIVER**

Tuition shall be waived for the surviving spouse or child of any Montana firefighter or peace officer killed in the course and scope of employment. This waiver shall not apply to the extent that any person is eligible for educational benefits from any governmental or private benefits program that provides comparable benefits. To apply, please contact the Financial Aid Office. Recipients of this fee waiver are subject to satisfactory academic progress requirements.

## **FACULTY AND STAFF FEE WAIVER**

All fees, except registration and building fees, shall be waived for a maximum of 6 credits per term for permanent Montana University System employees who are employed at least 3/4-time during the entire period of enrollment. Application forms are available from the Financial Aid Office, or online at [www.msugf.edu/finaid/statefeewaivers.htm](http://www.msugf.edu/finaid/statefeewaivers.htm).

## **DEPENDENT FEE WAIVER**

All employees who have been employed at least ¾ time for at least five years without a break in service are eligible for a dependent waiver benefit. The employee must remain employed for the entire time during which the tuition waiver is utilized. Eligible jointly employed spouses may utilize the dependent tuition waiver benefit for two children at one time but any one child may not receive more than a 50% tuition waiver under the dependent tuition waiver policy. Applications for the dependent tuition waiver benefit are to be initiated by the employee or the employee's dependent. Employees who do not submit a timely application for a dependent tuition waiver may be denied the dependent tuition waiver benefit.

Employees will be required to sign a statement verifying 1) that they are not utilizing the tuition waiver for themselves, and 2) the child utilizing the tuition waiver is claimed as a dependent for federal tax purposes, is unmarried and has not reached age 25 as of the first day of the semester for which the tuition waiver is granted; or 3) the employee is married to the spouse utilizing the tuition waiver. Documentation that a dependent has been claimed in the tax year the benefit is used may be required

# YOUR Student Central - FINANCIAL AID

for audit purposes or in cases of suspected misuse. False certification of dependent eligibility for the tuition waiver is cause for discharge and the employee shall be required to repay the cost of the tuition waiver.

The dependent tuition waiver benefit is a 50% reduction in the cost of residential tuition. This benefit is not taxable. In no case may registration, course fees, or any other mandatory fee be waived. There is no limitation on the number of credits that may be taken per semester under the tuition waiver benefit. Contact the Financial Aid Office for additional information.

## SCHOLARSHIPS

### INSTITUTIONAL SCHOLARSHIPS

MSU – Great Falls College of Technology has an institutional scholarship application for most institutional scholarships. The deadline for this application is the beginning of February for the next academic year. Contact the Financial Aid Office for this application.

### MONTANA UNIVERSITY SYSTEM HONOR SCHOLARSHIP

Recipients of the Honor Scholarship are selected by the Office of the Commissioner of Higher Education and will receive a waiver of tuition for fall and spring semester. Recipients must submit to the Financial Aid Office a copy of their Honor Scholarship notification from the Commissioner's Office upon receipt.

### HONOR SCHOLARSHIP FOR NATIONAL MERIT SCHOLARSHIP SEMIFINALISTS

Tuition shall be waived for National Merit Scholarship semifinalists from Montana. This scholarship (fee waiver) will be valid through the first two semesters of enrollment exclusive of any credits earned prior to high school graduation.

### SCHOLARSHIP SEARCHES

Graduating seniors should talk with their high school counselors. Many high schools offer good scholarship services for little or no charge. All students should periodically check the Financial Aid website: [www.msugf.edu/finaid/scholarships](http://www.msugf.edu/finaid/scholarships). The Financial Aid Office posts scholarship information and deadlines on the Financial Aid website as information becomes available.

There are many FREE scholarship searches available on-line; the Financial Aid Office recommends searching at these sites: <http://fastweb.com> or [www.finaid.org](http://www.finaid.org).



## FEDERAL FAMILY EDUCATION LOAN PROGRAM (FFELP)

### FEDERAL SUBSIDIZED STAFFORD/FEDERAL UNSUBSIDIZED STAFFORD/FEDERAL PLUS

The Free Application for Federal Student Aid (FAFSA) must be completed to determine eligibility for all FFELP loans. The FFELP loans offer assistance from a participating lending institution of the borrower's choice.

All borrowers must maintain satisfactory academic progress in accordance with the policy of the Financial Aid Office and be enrolled at least half-time to qualify for any FFELP loans. Deferments for Peace Corps or volunteer services may be available.

## VETERANS' BENEFITS

Students who are veterans of military services may be eligible for Veterans' Benefits. Application for benefits should be submitted to the regional Veterans' Affairs Office at least 30 days in advance of the start of the academic term. Other educational benefits are extended to orphans of veterans and for the vocational rehabilitation of veterans. Once enrolled, recipients must request that the Financial Aid Office verify their enrollment with the Department of Veterans Affairs before benefits will begin.

Veterans attending MSU – Great Falls College of Technology must maintain a 2.0 Cumulative GPA. If the student falls below a 2.0 CGPA, s/he will have one semester to raise his GPA to a 2.0. If the student is unable to do this, s/he will be placed on suspension and will have to sit out a term before s/he is able to return. Appeals may be granted for extenuating circumstances.

For information on Veterans' Benefits, contact the Financial Aid Office at 406-771-4334 or the Veterans Administration at 1-888-GIBILL1.

## STATE AND LOCAL SERVICES

Montana Social and Rehabilitative Services Division, Montana Workforce Services, Bureau of Indian Affairs, Project Challenge, and Rural Employment Opportunities offer assistance to students who qualify for their programs. For information regarding eligibility requirements, contact the specific program. The Financial Aid Office must be notified by the student if any assistance is received from an outside agency.

## WITHDRAWALS / CHANGES IN ENROLLMENT

Students receiving financial aid are expected to complete a designated percentage of the credits for which they are funded each academic term. The Financial Aid Office must be notified by the student of any increase or decrease in number of credits. Students may be suspended from financial aid for not completing the designated percentage of credits.

Those students who are receiving financial aid and completely withdraw from the college may owe the Department of Education a prorated amount of aid received based on class days attended in the term. Students who owe repayment will be ineligible for further federal financial aid as long as a repayment is outstanding.

Students who do not officially withdraw but stop attending classes and receive failing grades will be considered unofficial withdrawals. The institution will determine the last date of attendance. Based on this date, students may owe a repayment of aid received.

## RETURN OF TITLE IV FUNDS

This policy applies to students who officially or unofficially withdraw from the College. Refunds are determined according to the following policy:

1. The term "Title IV Funds" refers to the federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: subsidized FFELP loans, unsubsidized FFELP loans, FFELP PLUS loans, Federal Pell Grants, federal ACG Grants, and federal SEOG. The state fund that may be affected is the MTAP grant.
2. A student withdrawal date is:
  - The date the student began the institution's withdrawal process or officially notified the institution of intent to withdraw, or
  - The midpoint of the period for a student who leaves without notifying the institution; or
  - The student's last date of attendance at a documented academically related activity.
3. Return of fund calculations:
  - For the purpose of billing and calculating return of funds, the summer sessions are part of one summer term.
  - In accordance with federal regulations, when financial aid is involved, return of funds are allocated in the following order: unsubsidized FFELP loans, subsidized FFELP loans, FFELP Plus loans, federal Pell Grants, federal SEOG, other Title IV assistance.
  - Copies of this calculation can be requested from the Financial Aid Office.
4. Institutional and student responsibilities with regard to the return of the Title IV funds.



- Students are required to maintain a minimum 2.0 cumulative grade-point average (C average). Students with less than a 2.0 CGPA, but at least a 1.50 CGPA, at the end of each academic term will be placed on financial aid probation for the next academic term and placed on financial aid suspension at the end of the probation term if the CGPA is not 2.0 or above. If at any time a student's CGPA is less than a 1.50, and/or the completion ratio is less than 67%, the student will be placed on financial aid suspension;
- Students must complete 67 percent (rounded) of the number of attempted credits as of the end of the add/drop period each term. Students with a completion ratio of less than 67 percent at the end of each term will be placed on financial aid suspension;
- Students have a maximum time frame in which to receive financial aid, which is generally 150 percent of the number of required credits specified for each program of study;
- Students who have been placed on financial aid suspension and bring themselves into good standing may be reinstated for the payment period following the semester in which they regained satisfactory progress status. Students must submit a written request for reinstatement;
- Students will receive written notice when they are placed on financial aid probation or suspension; however, it is the student's responsibility to know if they are maintaining satisfactory academic progress for financial aid recipients.

MSU – Great Falls College of Technology's responsibilities with regard to the return of Title IV funds include:

- Providing each student with the information given in this policy;
- Identifying students who are affected by this policy and completing the Return of Title IV calculation for those students within 45 days of the withdrawal date;
- Returning any Title IV funds that are due to the Title IV programs.

The student's responsibility with regard to the return of the Title IV funds include:

- Repaying to the Title IV programs any funds that were disbursed directly to the student and which the student was determined to be ineligible for through the Return of Title IV funds calculation

Examples of this calculation can be obtained from the MSU – Great Falls College of Technology Financial Aid Office.

## ATTENDANCE

Attendance is mandatory to receive financial aid. Students must attend classes on a regular basis and complete them to continue to receive financial aid. If a student stops attending part or all of their classes, they may have to repay part or all of the financial aid they have received.

## SATISFACTORY ACADEMIC PROGRESS REQUIREMENTS

Federal and state financial aid regulations require that all financial aid recipients maintain satisfactory academic progress in their programs of study. Failure to maintain satisfactory academic progress will result in either financial aid probation or suspension. Students on financial aid probation may continue to receive financial aid. Students on financial aid suspension will not receive financial aid. Below is a brief outline of the standards to achieve satisfactory progress for financial aid recipients at Montana State University - Great Falls College of Technology. For a complete copy of the policy contact the Financial Aid Office.

Students who have been placed on financial aid suspension because of failure to meet the satisfactory academic progress requirements may appeal in writing to the Financial Aid Office for review of circumstances. Forms to appeal are available online at [www.msugf.edu/finaid/Forms.htm#sap](http://www.msugf.edu/finaid/Forms.htm#sap) or in the Financial Aid Office. Current federal regulations allow only for mitigating circumstances and occurrences beyond the student's control to constitute an eligible appeal. All appeals must contain documentation to verify the mitigating circumstances listed in the appeal.

Contact the Financial Aid Office for a complete satisfactory academic progress policy for financial aid recipients.

## CHANGES TO FINANCIAL AID POLICIES

Exceptions or amendments to any of the specific provisions regarding financial aid policies or requirements may be made at any time, without publication, due to changes in federal, state, and/or institutional regulations and policies.

# YOUR Student Central - STUDENT INFORMATION

## **POLICIES AND PROCEDURES**

### **ACADEMIC INTEGRITY POLICY**

As an institution of higher education, Montana State University - Great Falls College of Technology requires its students to adhere to high standards for academic integrity. It is a violation of academic integrity to present the ideas, designs, or work of another person as one's own effort or to permit another person to do so. The College will regard the following acts as violations of academic integrity requiring disciplinary action:

**Plagiarism** – Submitting an assignment -- whether written, oral, graphic, or computer-generated -- which consists wholly or partially of the words, work, or ideas of another individual without giving the original author proper credit.

**Copying** – Using crib notes, cheat sheets, books, or other material, resource, or electronic device as aids in an examination or any other graded exercise, unless the instructor of the class has given permission to use such materials; collaborating with another student or students on an examination or other graded exercise, without instructor permission; contributing to violations of academic integrity; knowingly assisting another student in an act which violates academic integrity.

Violations of academic integrity are serious offenses and will be subject to appropriate consequences at MSU - Great Falls College of Technology. The consequence for the first such violation is determined by the instructor involved, who will balance the seriousness of the violation with a concern for the development of the student as a learner and a citizen. Consequences of a first violation or subsequent violations in the same course may range from having to resubmit the particular assignment/test to receiving a failing grade in the course. Subsequent violations in other courses may result in the range of consequences determined by the instructor, as well as additional sanctions recommended by the department chair for enactment by the Associate Dean of Instruction, Assessment and General Education. A student who has violated the Academic Integrity Policy may also be prevented from representing the College in any official manner, including holding office in Student Government.

At the request of faculty and upon approval by the Assistant Dean of Student Services, a student may be prevented from withdrawing from a course in a case of academic dishonesty. After informing the student of a violation of this policy and the consequences that will be imposed, faculty must report all violations using the **Notification of Violation of Academic Integrity form**, to their respective department chair, the Assistant Dean of Student Services, and the Associate Dean of Instruction, Assessment and General Education within one week of the incident.

Students accused of academic dishonesty retain their right to due process and may file a complaint through Student Central in response to any academic or disciplinary sanctions. The appeal process is detailed in the College Catalog under Academic Complaints.

**Academic Integrity Processes for Bozeman Operation** – Because of the different structure and clientele of the College's Bozeman operation, the above processes have been modified to fit the two types of students served there and the administrative structure.

For **MSU students** taking courses with the Bozeman operation - The consequence for the first academic integrity policy violation is determined by the instructor involved, who will balance the seriousness of the violation with a concern for the development of the student as a learner and a citizen. Consequences of a first violation or subsequent violations in the same course may range from having to resubmit the particular assignment/test to receiving a failing grade in the course. Subsequent violations in other courses may result in the range of consequences determined by the instructor, as well as additional sanctions recommended by the Assistant Dean of Bozeman Programs.

At the request of faculty and upon approval by the Assistant Dean of Student Services, a student may be prevented from withdrawing from a course in a case of academic dishonesty. After informing the student of a violation of this policy and the consequences that will be imposed, faculty must report all violations using the **Notification of Violation of Academic Integrity form**, to the Assistant Dean of Bozeman Programs, the Assistant Dean of Student Services, and the Associate Dean of Instruction, Assessment and General Education within one week of the incident. The Assistant Dean of Student Services will notify the MSU Dean of Students of the violations and consequences imposed.

Students accused of academic dishonesty retain their right to due process and may file a complaint through MSU - Great Falls Assistant Dean of Student Services in response to any academic or disciplinary sanctions. The appeal process is detailed in the College Catalog under Academic Complaints.

For **MSU - Great Falls students** taking courses with the Bozeman operation - The consequence for the first academic integrity policy violation is determined by the instructor involved, who will balance the seriousness of the violation with a concern for the development of the student as a learner and a citizen. Consequences of a first violation or subsequent violations in the same course may range from having to resubmit the particular assignment/test to receiving a failing grade in the course. Subsequent violations in other courses may result in the range of consequences determined by the instructor, as well as additional sanctions recommended by the Assistant Dean of Bozeman Programs.

At the request of faculty and upon approval by the Assistant Dean of Student Services, a student may be prevented from withdrawing from a course in a case of academic dishonesty. After informing the student of a violation of this policy and the consequences that will be imposed, faculty must report all violations using the **Notification of Violation of Academic Integrity form**, to the Assistant Dean of Bozeman Programs, the Assistant Dean of Student Services, and the Associate Dean of Instruction, Assessment and General Education within one week of the incident.

Students accused of academic dishonesty retain their right to due process and may file a complaint through Student Central in response to any academic or disciplinary sanctions. The appeal process is detailed in the College Catalog under Academic Complaints.

### **ACCIDENTS/ILLNESS**

If a student incurs an injury or becomes ill while on campus and the student is unconscious, unable to respond, or the injury or illness is perceived to be of a serious nature, (911) will be called to reach emergency services. Students are responsible for the cost of transport and treatment for accidents or illness. If the student is conscious and able to respond, and the injury or illness is not perceived to be life-threatening, the student will be given the opportunity to refuse emergency services. Students will be requested to complete an Incident Report form available from the Welcome Desk or Student Central.

### **CHANGE OF ADDRESS**

A current mailing address, permanent address, and telephone number should be on file in Admissions & Records in Student Central. A forwarding address should be provided when a student withdraws or graduates. A change of address form is available at the Welcome Desk, Student Central or [http://www.msugf.edu/adm\\_records/forms.htm](http://www.msugf.edu/adm_records/forms.htm).

### **CHANGE OF PROGRAM**

In order to change their academic program, a student must complete the Change of Program form, which must be signed by the new advisor and returned to Admission & Records. Completion of this process ensures that the student is assigned an appropriate program advisor. The Change of Program form is available in Student Central or online at [http://www.msugf.edu/adm\\_records/forms.htm](http://www.msugf.edu/adm_records/forms.htm).

## COMMERCIAL ACTIVITIES/FUNDRAISING

The sale of goods or services and solicitation of funds from any source not affiliated with the campus is prohibited in the building, on campus grounds, and at all campus-sponsored activities. Exceptions to this policy must be granted in writing by the Dean or Dean's designee.

## COMPLAINT PROCEDURE

A student who believes that a policy of the college has been violated may make a complaint following the procedures outlined in this section. When possible, a student should attempt to resolve the complaint informally, by bringing it to the attention of the individual(s) directly involved. However, when informal methods fail, the College will assist in the resolution of complaints through the formal procedures outlined on the following pages.

**Types of Complaints:** The college has established procedures for each of the following types of complaints. The procedures for each type of complaint are provided in this section.

### ~ Student Equal Opportunity Complaints

The College's policies on equal opportunity and sexual harassment are provided in the catalog and are administered by the College's Assistant Dean of Student Services, 2100 16th Avenue South, Great Falls, MT 59405. (Telephone: 771-4300). If a student believes that his/her right to equal opportunity has been violated, he/she should take the following steps:

1. Discuss the situation with the individual(s) immediately involved. If unable or unwilling to discuss the matter with this individual, discuss it with an advisor or the supervisory staff most closely associated with the individual directly involved (e.g., the teacher of the class if the individual is another student, or the department chair if the individual is a faculty member, etc.).
2. If an acceptable resolution cannot be reached informally, or if such a discussion is not possible, the student may take her/his complaint to the Assistant Dean of Student Services, who will discuss the nature of the complaint with the student and direct the complaint to the appropriate official. Generally, the Assistant Dean of Student Services tries first to facilitate a resolution to the complaint through informal methods. However, this step may be bypassed at the discretion of the Assistant Dean of Student Services or at the request of the student.
3. If all informal processes fail to produce a satisfactory resolution, the student may choose to submit a formal complaint. To expedite an accurate investigation and a fair resolution of the problem at this level, the complaint should be stated in writing and should be brought to the Assistant Dean of Student Services as quickly as possible. The written complaint should describe the specific act(s) alleged to be in violation of the College's EEO policies, the student's attempts, if any, to resolve the grievance informally, the names of all individuals involved in or witness to the alleged act(s), and the precise remedy sought by the student. Students may use their own format for written complaints, or they may obtain a Formal Complaint Form from the Assistant Dean of Student Services.
4. All communication with the Assistant Dean of Student Services will be held in confidence to the extent possible; however, the Assistant Dean of Student Services may, in certain cases, assign the investigation of the complaint to another appropriately qualified individual and provide that individual with access to all documents and witnesses, with the understanding that all communication with the investigator will be held in confidence. All reasonable attempts will be made to complete the investigation within 15 working days of the submission of the complaint. However, extensions of this time frame may be necessary in certain cases.

5. Once an investigation has been authorized, the College is obligated to see it through to completion. Only the Dean of the College and the Assistant Dean of Student Services has the authority to halt an investigation. When the investigation has been completed, the Assistant Dean of Student Services will evaluate the evidence gathered and submit a Report of Findings to the Dean of the College within 10 working days of receipt of the Investigation Report, unless extenuating circumstances require an extension of that deadline.
6. Either party may appeal the Assistant Dean of Student Services findings from the investigation by submitting a written request for review to the Dean of the College. The request for review must be submitted within ten (10) working days after the student is notified of the findings of the Assistant Dean of Student Services. The Dean will receive and review all evidence and render a written decision with recommendations as to resolution within ten (10) working days of receipt of the request for review, unless extenuating circumstances require an extension of this time frame.
7. At any time prior to, during, or following the completion of the internal investigation process, complainants are entitled to contact and/or submit complaints to external civil rights organizations.

### ~ Academic Complaints

Students who disagree with an academic decision made by an instructor or administrator, including the assignment of grades or decisions about program or degree requirements or eligibility, may file an academic complaint. The academic complaint procedures are administered by the Associate Dean of Instruction, Assessment and General Education or Associate Dean of Workforce Programs. These procedures are designed to be used when a specific action or decision of a College instructor or administrator had a specific adverse effect on the academic performance or academic record of a student or students. Complaints about the general quality of the performance of an instructor or other College employee are to be addressed through the personnel evaluation processes in place at the College. The academic action or decision, including the assignment of a grade, will be considered unfair if the decision is made:

- on some basis other than performance in the course and/or compliance with course/College requirements;
- by more exacting or demanding standards than were applied to other students in the same section or circumstances;
- by a substantial departure from the instructor's, department's, or College's announced standards as articulated in the course syllabus, catalog descriptions, policies, and/or other written materials.

A student who wishes to make an academic complaint must follow these steps and may request assistance through the Assistant Dean of Student Services:

1. **Informal Meeting.** The student should attempt to resolve the matter directly with the instructor or administrator through a personal conference as soon as possible after the academic decision is known.
2. **Department Chair/Director Review.** If the student and instructor/administrator cannot reach a mutually satisfactory resolution to the problem, the student may file a formal grievance. The grievance must be presented in writing to the instructor's/administrator's Department Chair within ten (10) working days after the student became aware of the academic action/decision. In the case of adjunct faculty, the Director of Instruction should be included. The student must describe the grievance by explaining the specific adverse effect of a specific act(s) or decision of the instructor/administrator, why the student believes the act/decision was unfair, the student's attempts to resolve the grievance informally, and the precise relief sought by the student. The student may attach copies of any relevant documents to the formal grievance.

3. If a student requests assistance, the Assistant Dean of Student Services Department will assist with any remaining steps of the formal procedure that the student considers.
4. The student will send a copy of the grievance to the instructor/administrator, who will have ten (10) working days to respond after receipt of the grievance.
5. The Department Chair will receive and review all evidence, interview each party, if possible, and render a written decision to the student, instructor, and Assistant Dean of Student Services with recommendations as to resolution within ten (10) working days of receipt of the instructor's response. If the grievance is not concluded within this time, the student may carry it forward to the appropriate Associate Dean.
6. Associate Dean's Review. Either party may appeal the department chair's/Director's decision in writing to the Associate Dean, with copies to the instructor, student, department chair/director, and the Assistant Dean of Student Services. Such appeal will be filed within five (5) working days of receipt of the department chair's determination. The Associate Dean will submit a written decision to the student, instructor, Department Chair, and the Assistant Dean of Student Services within ten (10) working days of receipt of the appeal. The decision of the Associate Dean may be appealed to the Dean/CEO of the College.

## ~ Student Conduct Complaint Procedures

Below is an abbreviated version of MSU—Great Falls College of Technology's Student Conduct Complaint Procedures, including the Student Conduct Code and how to file a complaint. For a complete copy of the procedures, please see the office of the Assistant Dean of Student Services (771-5133) or the web page ([www.msugf.edu](http://www.msugf.edu)).

### I. Student Conduct Code

Montana State University - Great Falls College of Technology expects all students to conduct themselves as honest, responsible, and law-abiding members of the academic community and to respect the rights of other students, members of the faculty and staff, and the public to use the College's facilities and participate in the College's programs. Student conduct that disrupts, invades, or violates the personal, educational, or property rights of others is prohibited and may be subject to disciplinary action, including dismissal and/or referral for prosecution.

### II. Jurisdiction of Student Conduct Complaints

Conduct violations which occur on College property or at college-sponsored events are subject to the College's disciplinary jurisdiction. The College may also apply this code to student conduct, regardless of where it occurs, which adversely impacts or affects the overall mission, programs, and functions of the College or the health and safety of members of the college community.

Students who commit offenses against the laws of the city, state or United States are subject to prosecution by those authorities and may be subject to disciplinary action under this code if the offenses are also violations of this code. The College's disciplinary proceedings may precede, follow, or take place simultaneously with criminal proceedings and will not be subject to challenge on the ground that criminal charges involving the same incident have been dismissed or reduced.

The College's Student Conduct Review Board responds to cases involving alleged violations of the Student Conduct Code. The Board is a standing committee presided over by the Assistant Dean of Student Services. Its members are appointed annually by the Dean and include at least two professional staff, three faculty, two classified/support staff, and two students.

### III. Student Conduct Complaint Procedures

If informal attempts to resolve a student conduct complaint fail, any student, faculty, or staff member of the College may file a formal complaint through the Assistant Dean of Student Services. The formal complaint must be in writing and must contain at least the following information:

- the name and address (if known) of the student alleged to have violated the Student Conduct Code;
- the date(s) the incident(s) occurred;
- the location where the incident(s) occurred;
- a description of the incident which sets forth sufficient details to establish a possible violation of the Student Conduct Code.

The Assistant Dean of Student Services will complete an initial investigation to determine what, if any, sanctions are warranted. If all parties involved – the Assistant Dean of Student Services, the complainant and the student against whom the complaint has been filed – agree on an appropriate course of action, the process is complete. If any of the parties are not in agreement, the process moves into a hearing phase. A Hearing Committee is selected from the Student Conduct Review Board, and the Hearing Procedures delineated in the Student Conduct Complaint Procedures are followed. The decision made by the Hearing Committee may be appealed to the Dean of the College. A final appeal within the Montana University System may be made to the President of MSU Bozeman.

## EMERGENCY REPORTING

**Do not hesitate to dial 911 in an emergency situation either from a campus phone or your cell phone.** If you phone 911 from a campus phone, you will reach the police emergency dispatcher and the MSU—Great Falls Welcome Desk is immediately notified of the location of the call. Additional emergency phone numbers are posted in every classroom and meeting area along with emergency procedures for specific events. Concern for the safety of students and employees is of the utmost importance to the leadership of MSU – Great Falls COT.

## EMERGENCY RESPONSE

An Emergency Response Manual giving directions for responding to various types of emergency is posted in every classroom. If you hear and/or see the emergency siren and flashing lights within the building, evacuate the building immediately. Evacuation maps are at the entrance of every classroom and meeting space. Evacuate through the nearest exit and move away from the building. Crisis Team members in bright orange vests will guide you and answer your questions at that point. In the rare event that an off-campus gathering point is required, cross 16th Avenue to the University of Great Falls McLaughlin Center (gym).

## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act of 1974 grants certain rights, privileges, and protections related to students' educational records maintained by the College. Students' educational records (with the exception of directory information) will not be released to third parties outside of the College, except with the written consent of the student. Students have the right to inspect their own educational records, except for those to which students have expressly waived this right (e.g. Career Services placement). Students have the right to request amendment of their records. If they are found to be inaccurate, misleading or otherwise in violation of the student's privacy or other rights the student may request that their records be corrected. Such requests should be made as soon as the student becomes aware of the inaccuracy or any other problem.

# Student Central - STUDENT INFORMATION

Any student may file a complaint with the U.S. Department of Education concerning any alleged failure on the part of the College to comply with the requirements of the Family Educational Rights and Privacy Act.

**Directory Information:** The Family Educational Rights and Privacy Act permits the release of information designated as directory information to third parties outside the College without the written consent of the student. MSU – Great Falls College of Technology has designated the following items as Directory Information: student name, address, e-mail address, telephone number, major field of study, participation in officially recognized activities, dates of attendance, degrees and awards received, and most recent previous school attended. The College may disclose any of those items without prior written consent.

Currently registered students have the right to request that information designated as directory information be withheld from release by the College. Any student wishing to exercise this right must inform the Registrar in writing.

Any questions regarding educational records should be directed to the Registrar. A detailed guide of the Family Educational Rights and Privacy Act may be obtained from the Assistant Dean of Student Services.

## MINOR CHILDREN OF STUDENTS

Minor children of students may not be without adult supervision in any part of the building. The housing brochure has a listing of some of the local daycare facilities.

## PORTAL EMAIL AND ANNOUNCEMENTS

**MyMSU Portal** is the Internet portal for the four MSU campuses. The portal is a service to students and staff that provides a secure single login to various MSU systems and provides customizable access to information through roles and groups. Roles for MSU-Great Falls include students, faculty and staff. When you log into the MyMSU portal, you will gain centralized access to campus events & announcements, email, calendaring, course information, weather, news, important forms, and much more. The first time that you check your student email account and MyMSU Portal, you will need to log on through Banner Web – My Info. At MSU - Great Falls you will receive a student email account when you register for classes. Contact the HelpDesk for assistance.

**It is recommended that you check your MyMSU Portal email twice weekly to avoid missing important email and announcements.** The Portal email address is the College's official means of sending electronic messages to students. This may include information from instructors, College administration, the Financial Aid Office, and Student Accounts. Financial Aid award letters will be sent electronically. The Business Office uses the system for official notifications. Students may use the Portal to start social, academic-related or interest-based groups. Groups are useful for interaction and information sharing for clubs and student projects. The MyMSU portal calendar may be used by students to track class and personal schedules.

## POSTED ANNOUNCEMENTS

A student bulletin board is located in the Student Commons. All items must be dated on the front, or they will be removed. Date stamps are provided at the Welcome Desk located in the north atrium.

## PUBLICATION & DISTRIBUTION

All postings must be approved and stamped by the Welcome Desk Manager or the Executive Director of College Relations and Advancement. Bulletin board postings, index cards, posters, and table tents are allowed after approval. Postings without official stamps, as well as material that remains posted beyond the removal date will be removed. When possible, the Welcome Desk will post printed materials in locations requested. Postings are allowed in pre-approved areas only. For questions, please contact the Welcome Desk. The Welcome Desk staff will post, remove and dispose of posters in a timely manner. Avoid taping to building surfaces including painted, brick or stone walls, glass or metal finishes.

## SAFETY

Unsafe conditions on the campus should be reported immediately to faculty, staff, or the Welcome Desk. Because some instructional areas require safety clothing or equipment, students may not be allowed to work in these areas without proper clothing and/or equipment.

## SMOKING

Montana State University - Great Falls campus is a smoke-free building. Smoking is not allowed anywhere in the building or within twenty-five (25) feet of the building. Smokers are asked to use receptacles on the south side of the building for disposal of cigarettes in lieu of disposing of them on the College grounds.

## STUDENT RESPONSIBILITIES

Students attending Montana State University - Great Falls College of Technology have a responsibility to:

- Be informed regarding institutional policies and procedures that guide the educational experience;
- Attend classes regularly and be prepared to contribute productively to the learning environment in classroom activities;
- Treat other students, faculty members, and staff with courtesy and respect;
- Meet with their faculty advisors at least twice each semester to monitor progress and plan the program of study;
- Follow fair, appropriate, and noncollaborative procedures when evaluating courses;
- Maintain academic integrity with regard to proper acknowledgment of authorship of written documentation and other academic endeavors.

## TELEPHONES

The College's telephones are used for business purposes. Students' personal calls should be made on the pay telephone provided in the Student Commons near the Learning Center.

## SERVICES

### ASSOCIATED STUDENTS

The Associated Students of Montana State University – Great Falls College of Technology (ASMSU - GF COT) is an organization that acts on behalf of the MSU – Great Falls College of Technology student body by participating in a variety of campus planning activities. Some of the activities include: providing input to the College's administrative staff, the Montana Associated Students and to the Montana Board of Regents regarding issues and policies that impact students, planning student and campus activities, and prioritizing how student funds will be expended. Officers are elected at the end of each spring semester and hold office throughout the following year. Members of this organization also sit on various other College committees.

### ~ Student Emergency Assistance Program

The Student Emergency Assistance Program (SEAP) is sponsored by Associated Students and is dedicated to providing emergency assistance to students or to aid them in contacting other resources in the Great Falls area. SEAP is governed and regulated by ASMSU - GFCOT. All resources are obtained through donations. Students must go through an application process to receive assistance. Applications are located in Student Central, the Welcome Desk and the Library.



## COTTage BOOKSTORE

The MSU – Great Falls COTTage Bookstore is located near the center of the campus. Books and merchandise for the MSU – Great Falls College of Technology and the MSU Bozeman College of Nursing are available at the campus bookstore. Students can purchase or reserve textbooks and general merchandise through the COTTage Bookstore website or by selecting the “view textbooks” button located on the registration page in BannerWeb. The website is: [www.thecottagebookstore.com](http://www.thecottagebookstore.com), or students can take advantage of the “Pre-Package Service.” Students can take their class schedule to the Bookstore prior to financial aid charging and, the Bookstore will pre-package the books so that they are ready for the first day of classes! Take advantage of this great service!

### Interession / Summer hours:

7:30 am – 5:00 pm Mon. - Fri.

Closed weekends

### Spring / Fall Hours:

Monday - Thursday: 7:30 am - 8:00 pm

Friday: 7:30 am – 5:00 pm

Closed weekends

### Contact information:

Steven Halsted, Bookstore Manager

[shalsted@msugf.edu](mailto:shalsted@msugf.edu) or [bookstore@msugf.edu](mailto:bookstore@msugf.edu)

Phone: 406-771-4367

## CAREER SERVICES

A full range of Career Services are available to assist students and alumni in clarifying their educational and career goals and securing employment. Services include career counseling and assessment, a career resource library, workshops, and transfer guidance. Students also receive assistance in locating temporary, full- and part-time work, resume writing, and interviewing skills. Job placement is a team effort involving the student, program faculty, and the Career Services office. Career Services is located in Student Central. Please call 406-771-4414 or 800-446-2698 to make an appointment.

## DISABILITY SERVICES FOR STUDENTS

All students attending Montana State University – Great Falls College of Technology are entitled to equal access to academic programs, services, student activities, and campus events. Students with disabilities have a right to reasonable accommodations in order to fully participate in the student experience. Students with disabilities are encouraged to advocate for themselves to the extent possible. Disability Services provides support and assistance in determining what accommodations are best suited to each individual.

MSU – Great Falls College of Technology uses the definition of disability set forth by Section 504 of the Rehabilitation Act of 1973, which states that a disabled person is anyone who:

- Has a physical or mental impairment which substantially limits one or more major life activities;
- Has a record of such an impairment;
- Is regarded as having such an impairment.

Students needing accommodations must apply for services through Disability Services, located near the Learning Center, and be determined eligible by meeting all of the following criteria:

- Have a permanent or long-term (≥ 6 mos.) medical or psychological condition which significantly impairs the student’s ability to function in an academic setting;
- Provide Disability Services with current documentation of disability from a qualified professional; this documentation will be kept confidential in accordance with the Disability Services Confidentiality Policy;
- Be “otherwise qualified” for the chosen course of study and able to meet the behavioral standards set forth in the College’s Student Conduct Code.

Unlike high school, educational accommodations at the postsecondary level are student initiated. Each student who chooses to seek accommodations must meet with the Disability Services Director to determine what accommodations to request based on the needs of the student and the demands of the course. The medical, psychiatric and/or

# Student Central - STUDENT INFORMATION

psychological documentation provided by students is kept in separate and confidential files in Disability Services. A complete copy of the Eligibility Criteria and the Confidentiality Policy can be obtained from the Director or found online. Depending on the student, available accommodations may include, but are not limited to:

- Extended test time
- Distraction-reduced testing environment
- Various other test accommodations
- Adaptive computer equipment and software
- Notetakers
- Tutors
- Interpreter services
- Extended deadlines
- Ergonomic equipment
- Preferential classroom seating
- Tape recording lectures
- Materials in alternate format

Students with disabilities are encouraged to contact Disability Services upon enrollment and should visit with the Director each semester to determine accommodation needs for each class.

Building accessibility includes designated parking, curb cuts, automatic doors at the north, south and east entrances, ramp and elevator access to the second floor, accessible restrooms, Braille signage, and ramp access to theatre-style classrooms.

For more information, please contact Disability Services at (406) 771-4311 (voice) or (406) 771-4424 (TTY).

## EDUCATIONAL OPPORTUNITY CENTER (EOC)

The Educational Opportunity Center is a federally funded TRIO program of MSU – Northern in coordination with the Montana State University-Great Falls College of Technology. The EOC provides the following services for both students and the community:

- Help to choose a career, program of study, or training program;
- Academic advising to prepare for college;
- Assistance in completing application and other forms to enter college or training programs;
- Information on grants, student loans, scholarships and other types of financial aid;
- Referrals to support systems that can help students succeed.

The Educational Opportunity Center is located in Student Central. For more information, call the EOC Coordinator at (406) 771-4326 or 1-800-446-2698, ext. 4326.

## STUDENT ASSISTANCE FOUNDATION (SAF)

Student Assistance Foundation is a nonprofit organization whose mission is to provide students with the knowledge and tools to finance and pursue their postsecondary education. SAF is located in Student Central. For more information call (406) 771-5136 or (800) 852-2761. SAF provides the following services to students and the community:

- Student loan entrance and exit counseling
- College planning
- College success strategies
- FAFSA completion
- Transfer student assistance
- Scholarship services
- Debt management
- AND MUCH MORE!

## HEALTH INSURANCE AND HEALTH CARE

Although recommended, health insurance is not provided by Montana State University - Great Falls College of Technology. Brochures for outside agencies who provide this service are available in Student Central.

## HOUSING

The College is a commuter campus and does not have residential facilities. A brochure providing housing information for the Great Falls area is available at the Welcome Desk and in Student Central.

## LIBRARY

The new Montana State University - Great Falls Campus Library is located just off the atrium next to the Welcome Desk in the main building. The Library's collection supports all curricular areas; the collection includes books, videos, and periodicals as well as a rich array of electronic resources including full-text periodicals and newspapers, periodical indexes, reference materials, and the catalogs of other libraries. Access to Library holdings is through a Web-based catalog and the Library's website. Electronic resources can be accessed 24/7 from off-campus. The Library provides computers for research and space to study, including group study rooms. Also housed in the Library is the campus computer lab with the software needed for coursework. The Library supports instruction and student learning by providing open access to information and knowledge. Library services include reference, individual and group instruction, interlibrary loan, and reserves. A knowledgeable staff is available to help patrons with information needs. For more information, call the library at (406) 771-4398 or visit the Library's web site at: <http://library.msugf.edu>.

## LOST AND FOUND

Lost and Found items should be reported and taken to the COTage Bookstore. The phone number is (406) 771-4367.

## MESSAGES

College personnel will not deliver messages to individual students except in the case of emergencies or calls from schools and/or day care providers.

## PARKING

The College has north, east, and south parking lots for student use. It is requested that students not park in the designated visitor and handicapped parking area at the east and south side of the building. Students occupying handicapped parking should maintain a handicapped parking decal. The roadway around the facility is a fire lane, and no parking is allowed along the roadway.

## SNACK BAR AND CAFETERIA

For the convenience of students, the College has a snack bar and cafeteria located in the student commons area.



# YOUR Distance & Online LEARNING



## **DISTANCE EDUCATION DEPARTMENT**

The College offers online courses which are an extension of the on-campus course offerings. Over 100 Internet courses are offered in General Education, Computer Technology, Business, Health Science, and Office Technology. During each term, emphasis is placed on offering Internet courses which support programs at the MSU - GF College of Technology, as well as other units of the Montana University System.

## **PROGRAMS**

- Medical Transcription AAS Degree
- Medical Transcription Certificate of Applied Science
- Health Information Coding Specialist Certificate of Applied Science
- Health Information Technology AAS Degree
- Medical Billing Specialist Certificate of Applied Science
- Medical Billing and Coding Specialist AAS Degree
- Montana University System Core
- Associate of Arts
- Associate of Science
- Computer Information Technology (90% online) AAS degree
  - o Microcomputer Support
  - o Network Support
  - o Web Development

Additional information, including detailed course descriptions, is available on the web at <http://distance.msugf.edu>. For answers to questions about distance learning opportunities, please visit our website or call the Distance Education Department at 406-771-4440 or 800-446-2698, ext 4440.

## **INTERNET CLASSES**

The College uses a variety of delivery methods to best accommodate students and hires qualified faculty, both inside and outside of the Great Falls area, to meet the needs of students working part- and full-time. These faculty are trained and supported by the Distance Education Department to deliver effective instruction over the Internet. Courses are currently being delivered using the WebCT C.E. 4.1 course management software. However, the College will be implementing a new learning management system within the next year. Online students follow the same

registration procedures as campus-based students. Online students have full access to MSU – Great Falls College of Technology library resources and now have the opportunity to order textbooks online through the COTtage Bookstore (<http://www.thecottagebookstore.com>). The College plans distance learning opportunities, coordinates their delivery with academic departments, and provides student and faculty support services. Please contact the Distance Ed office for more information about the programs and/or course offerings. Students at a distance are an important part of the campus community!

## **MIXED-MODE (HYBRID) CLASSES**

A hybrid or mixed-mode course combines the traditional classroom setting with an online component. The amount of on-campus class time varies but is less than a traditional face-to-face class. Students enjoy the flexibility and convenience of an online course as well as the benefits of meeting face-to-face for interactive classroom instruction.

## **WEB-ENHANCED CLASSES**

Many of the on-campus courses are web-enhanced and use various online tools to enrich the class. An instructor may post lecture notes, grades, and allow email contact online. Assignments may be turned in electronically.

## **ADVANTAGES: YOU CAN –**

- Take courses from the comfort of your home.
- Earn a degree online while you work.
- Log in and complete assignments any time of day or night.
- Complete prerequisite courses online before relocating.
- Save on travel and childcare costs.
- Blend a course with your work schedule.
- Enjoy learning through an online format.

## **CHALLENGES: YOU MUST –**

- Be self-motivated.
- Learn to communicate effectively using technology to connect with other students, faculty, and the Distance Education Department by using e-mail, phone calls, and posting to discussion groups.
- Beware of procrastination – online courses follow the same calendar as on-campus courses.
- Learn to use the technology along with the content of the course.
- Own, purchase, or gain access to updated software and a newer personal computer for some courses. The latest version of Microsoft Office Professional and the newest Internet Explorer browser are recommended.
- Install a sound card (required for some courses).
- Read instructions and all course materials versus attending on-campus course lectures.
- Have regular access to an Internet-ready computer and basic computer skills.

## **YOU MAY –**

Be required to find a testing proctor or come on campus to take exams for your online course(s), especially mathematics, accounting and computers.



## COLLEGE OF TECHNOLOGY IN BOZEMAN AN EXTENSION OF MSU-GREAT FALLS

201 Culbertson Hall,  
Montana State University Campus  
PO Box 170515, Bozeman, MT 59717  
Tel: 406.994.5536 Fax: 406.994.5577  
Email: COTatBozeman@msugf.edu  
Website: <http://bozeman.msugf.edu/>

### INTRODUCTION

Gallatin Valley and MSU students now have access to some of the best benefits of a local two-year college at the College of Technology in Bozeman, an extension of MSU – Great Falls College of Technology.

### MISSION STATEMENT

The mission of the College of Technology in Bozeman is to be responsive to the educational and workforce needs of the Gallatin Valley by developing, delivering, and continually improving quality educational programs and services which will allow individuals to achieve their goals and create opportunities that will enrich their lives.

### BOZEMAN STATS

<b>Bozeman Population:</b>	32,414	<b>Gallatin County:</b>	78,210
<b>Elevation:</b>	4,810	<b>Founded:</b>	1863

### ATTRACTIONS

- Bozeman Hot Springs
- Canyon Ferry Lake
- Hyalite Canyon
- Missouri Headwaters
- Gallatin National Forest
- Bridger Mountains
- Downtown Bozeman
- Lewis & Clark Caverns
- Paradise Valley
- Yellowstone National Park
- Buffalo Jump
- Virginia City
- Spanish Peaks

### OUTDOOR RECREATION

- Hiking
- Biking
- Camping
- Fishing
- Hunting
- Skiing
- Snowmobiling
- Horseback riding
- Photography

### BOZEMAN HISTORY

The Bozeman Trail began as a gold-rush trail—a shortcut from the main trail on the North Platte River to the gold fields of Montana. The several routes of the Trail overlaid earlier Indian, trader and exploration routes in Wyoming and Montana. While only about 3,500 emigrants traversed the trail in 1864-66, its most significant consequence was that it cut through the Powder River Basin, the last and best hunting grounds of the Northern Plains Indians, and led to military occupation of the region and ultimately resulted in the Indian wars on the Northern Plains. After emigrant use ceased, the Trail served as a military road to the forts until it was abandoned in 1868 following the Fort Laramie Treaty. It was used again in 1876 by the forces of General George C. Crook, and shortly after the Battle of the Little Bighorn, the route was opened and used by settlers. ~ Susan Badger Doyle <http://www.bozemantrail.org/>

### BOZEMAN ... ALWAYS IN SEASON

Bozeman is in the heart of southwestern Montana's Rocky Mountains. Clean air, a moderate climate, and excellent access to Yellowstone National Park are just some of the attributes of Bozeman. With its eclectic mix of professors, artists, ranchers, and sporting enthusiasts, the small Montana town of Bozeman is the ideal place to reside and recreate. (Excerpted from [www.allbozeman.com](http://www.allbozeman.com))

### PROGRAMS

- **AVIATION, ASSOCIATE OF APPLIED SCIENCE**  
See page 41 for program information.
- **INTERIOR DESIGN, ASSOCIATE OF APPLIED SCIENCE**  
See page 59 for program information.
- **WELDING TECHNOLOGY, CERTIFICATE OF APPLIED SCIENCE**  
See page 72 for program information.
- **COLLEGE PREPARATORY CLASSES**  
Preparatory classes are available and can be used as electives in the student's program of study, with the exceptions of Math 065 and English 118. Preparatory courses are designed to develop skills to ensure the success in follow-on courses in MSU curricular areas. High quality instruction and out-of-class support are hallmarks of the College of Technology in Bozeman.

COLS 100:	Effective Academic Practices
COLS 101 US:	First Year Seminar
English 118:	Introduction to Critical Reading/Writing
English 119:	Introduction to College Writing
Math 065:	Pre-Algebra
Math 101:	Introductory Algebra

### SERVICES FOR STUDENTS

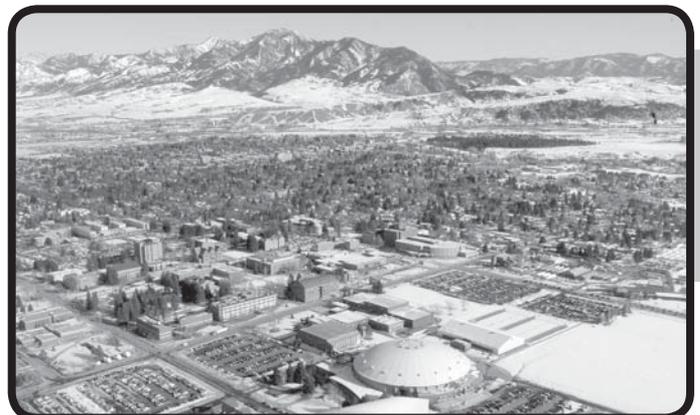
The Academic Development Center (ADC) is located at 201 Culbertson Hall on the Montana State University campus in Bozeman. The ADC offers math tutoring, a Writing Center, a computer lab, technical support for online courses, assessment testing and proctoring services, admissions, advising, and other administrative services.

### GENERAL INFORMATION

Students enrolled in degree-seeking programs with the College of Technology in Bozeman have access to many campus amenities offered to the MSU-Bozeman university students, including residential life (dormitories), food services, library facilities, health services, bus transportation, and fitness facilities (some at extra cost). Students are encouraged to acquire an MSU-Bozeman student identification card. This "One Card" costs a one-time fee of \$15 plus the cost of each additional campus service.

### CUSTOMIZED TRAINING CENTER - TECH CENTER

Located at 20 East Olive Street, Suite LL10, the Bozeman Tech Center offers short-term training in Microsoft Office, web design, computer-aided drafting, financial planning, real estate, selling on eBay, conflict and communication styles, creating business plans, and more. The workshop schedule can be found at <http://outreach.msugf.edu/bozeman/> or call (406) 522.0830. See page 31 for more information.





## **PROFESSIONAL AND CONTINUING EDUCATION**

An integral and growing part of the College's outreach mission are those activities termed "professional and continuing education" specifically, learning opportunities providing workforce preparation, employee training or re-training, business support, and life-long learning. These educational activities may be organized under varying instructional formats -- workshops, seminars, conferences, institutes, symposia, colloquia, short courses, etc.; however, they are aligned in their focus on imparting information to community members, employers, employees, and other groups in a high-quality, results-oriented manner. These activities are a major component of the workforce development mission extending the College's resources throughout the community.

The Division of Outreach and Workforce Development at Montana State University - Great Falls College of Technology anticipates and/or assesses needs for professional and continuing education and facilitates the delivery of coursework and programs to meet these needs. The Division is founded on the philosophy of academic excellence, entrepreneurship, sound business practice, and community collaboration. Training and educational opportunities are provided through the Centers for Extended Studies, Continuing Education, and Customized Training.

## **CENTER FOR EXTENDED STUDIES**

The Center for Extended Studies provides Professional Certifications, Certificate, and Degree programs as well as credit-bearing (116 numbered) courses both on and off-campus. Credit-bearing courses provide excellent professional development opportunities for teachers who are in need of re-licensure with the state and also serve as general electives for students pursuing an Associate of Arts or Associate of Science degrees at the College.

## **PROFESSIONAL CERTIFICATIONS**

The Center for Extended Studies and the College's academic departments offer Professional Certification programs which provide the student with the opportunity to move rapidly into the job market with a core of skills. The Professional Certification programs are offered during the day, late afternoon, evening and online to afford individuals the opportunity to earn credits while working. Serving as pivotal courses in many degree and certificate programs, these courses provide students the opportunity to utilize the credits to earn a degree or a certificate at a later date.

## **CCNA PROFESSIONAL CERTIFICATE**

The CCNA Preparation Certificate includes the completion of the following courses:

Course	No.	Title	Credits
CIT	111	Introduction to Computers for Tech Majors	3
CIT	126*	Networking Fundamentals	3
CIT	176*	Routers & Routing Basics	3
CIT	226*	Switching Basics & Intermediate Routing	3
CIT	276*	WAN Technologies	3

\* indicates prerequisite needed

## **CCNP PROFESSIONAL CERTIFICATE**

The CCNP Preparation Certificate includes the completion of the following courses:

Course	No.	Title	Credits
CIT	278*	Advanced Routing	4
CIT	279*	Remote Access	4
CIT	281*	Multilayer Switching	4
CIT	282*	Network Troubleshooting	4

\* indicates prerequisite needed

## **MICROSOFT CERTIFIED APPLICATION SPECIALIST (MCAS) PROFESSIONAL CERTIFICATE**

The MCAS Preparation Certificate includes the completion of the following courses:

Course	No.	Title	Credits
CIT	110	Introduction to Computers <b>OR</b>	
CIT	111	Introduction to Computers for Tech Majors	3
CIT	120	Internet Essentials	2
OO	266*	Microsoft Word	3
CIT	205*	Database Management	3
CIT	220*	Electronic Spreadsheets	3
CIT	140*	Presentation Fundamentals	1

\* indicates prerequisite needed

## **PUBLIC SAFETY COMMUNICATIONS PROFESSIONAL CERTIFICATION (GENERAL)**

The Public Safety Communications (PSC) professional certification imparts a technical edge to those applying for employment as a PSC professional (such as a 911 dispatcher). The professional certification may be used as proof of required training before taking the Montana Law Enforcement Academy equivalency test (required for PSC professionals after and within one year of hire). Individual PSC courses may be taken by anyone who is interested in brushing up on skills needed in their profession or by students needing coursework for the EMT-Paramedic Associate of Applied Science degree. Individuals who specifically need coursework in order to take the MLEA equivalency test should enroll in the PSC professional certification program. A criminal background check is required for the PSC Clinical Course and is also a requirement for employment as a PSC professional. Felony convictions (and some misdemeanor convictions) will exclude a person from employment as a PSC professional. This professional certification does not guarantee employment as a PSC professional. Students wishing to be employed as a PSC Professional must meet minimum requirements for hiring as set by the Peace Officers Standards and Training council.

## **ADVANCED PUBLIC SAFETY COMMUNICATIONS PROFESSIONAL CERTIFICATION WITH EMT- BASIC**

The Public Safety Communications Professional Certification may be completed with the EMT- Basic class. This advanced professional certification will benefit students who are interested in the Emergency Medical Services (EMS) field but who do not want to go into the EMS program. This certification provides valuable field experience for those interested in the Public Safety Communications profession. The Public Safety Communications Professional Certification with EMT-Basic allows

# Division of OUTREACH & WORKFORCE DEVELOPMENT

students to sit for the Montana and National Registry certification exams as well as the MLEA challenge test for dispatchers. Requirements for completing the Public Safety Communications Professional Certification with EMT-Basic include completion of the requirements for the general Public Safety Communications Professional Certification along with the completion of a 6 credit Emergency Medical Technician course (EMS 137). EMS 137 is the nationally recommended minimum level of training for ambulance personnel and is considered the desired level of medical training by many fire departments.

The equivalency test can only be taken after being hired as a PSC professional and must be taken at the Montana Law Enforcement Academy in Helena, MT.

## Prerequisites:

Enrollment in either program is required to obtain the Public Safety Communications Professional Certification. Most course work may be taken by anyone who is not specifically enrolled in the program, but the following prerequisites are required:

- Current CPR/First Aid certification
- Advising session - Advising by the MSU - Great Falls College of Technology Health Sciences Department for a program overview
- Online learning orientation on the MSU - Great Falls College of Technology campus

## PUBLIC SAFETY COMMUNICATIONS PROFESSIONAL CERTIFICATION (GENERAL)

Course	No.	Title	Credits
PSC	116	Public Safety Communications Terminology and Report Writing	1
PSC	116	Stress and Crisis Intervention for Public Safety Communications	1
PSC	116	Public Safety Communications Skill	2
PSC	116	Clinical for Public Safety Communications Professionals	1
PSC	116	Legal Responsibility, Ethics and Criminal and Civil Law for PSC	3
COMM	135	Interpersonal Communication	3
CIT	110	Introduction to Computers	3

Contact the Outreach Department for course descriptions.

## ADVANCED PUBLIC SAFETY COMMUNICATIONS PROFESSIONAL CERTIFICATION WITH EMT-BASIC

Course	No.	Title	Credits
PSC	116	Public Safety Communications Terminology and Report Writing	1
PSC	116	Stress and Crisis Intervention for Public Safety Communications	1
PSC	116	Public Safety Communications Skill	2
PSC	116	Clinical for Public Safety Communications Professionals	1
PSC	116	Legal Responsibility, Ethics and Criminal and Civil Law for PSC	3
COMM	135	Interpersonal Communication	3
CIT	110	Introduction to Computers	3
EMS	137	Emergency Medical Technician Basic (EMT-B)	6

EMT-Basic (EMS 137) may be taken as a single course to prepare for the Montana National Registry certification exams (without the PSC certification).

Contact the Outreach Department for course descriptions.

## ~ INDUSTRY STANDARD CERTIFICATIONS

Montana State University – Great Falls College of Technology offers Professional Certification programs and courses that lead to Industry Standard Certification. Students who successfully complete these programs and/or courses are prepared to sit for certification exams. The certification programs are as follows:

### COMPTIA NETWORK+

Course	No.	Title	Credits
CIT	126*	Networking Basics	3
CIT	176*	Router & Routing Basics	3
CIT	226*	Switching & Intermediate Routing	3
CIT	276*	WAN Technologies	3

\* indicates prerequisite needed

Note: Information provided in the four semesters of Cisco is designed to cover the CompTIA Network+ objectives.

### COMPTIA A+

Course	No.	Title	Credits
CIT	272*	PC Troubleshooting/Main	4

\* indicates prerequisite needed

### CISCO CERTIFIED NETWORKING ASSOCIATE (CCNA)

Course	No.	Title	Credits
CIT	126*	Networking Basics	3
CIT	176*	Router & Routing Basics	3
CIT	226*	Switching & Intermediate Routing	3
CIT	276*	WAN Technologies	3

\* indicates prerequisite needed

Note: If the student completes each of the above Cisco courses with a final exam score of 80% or better, the student is eligible for a Cisco voucher worth 40% off the cost of the Certification exam at a certified Testing Center (cost with voucher is approximately \$60. The voucher discount is available at the discretion of Cisco Systems.)

### CISCO CERTIFIED NETWORKING PROFESSIONAL (CCNP)

Course	No.	Title	Credits
CIT	278*	Advanced Routing	4
CIT	281*	Multilayer Switching	4
CIT	284*	Implementing Secure Coverage Wide Area Network	4
CIT	285*	Optimizing Converged Networks	4

\* indicates prerequisite needed

Successful completion of four examinations is required for the CCNP industry certification. At the completion of each of the above courses the student is prepared to take the corresponding examination.

### MICROSOFT MCP

Course	No.	Title	Credits
CIT	211*	Network Operating Systems II OR	2
CIT	166*	Computer Operating Systems	4

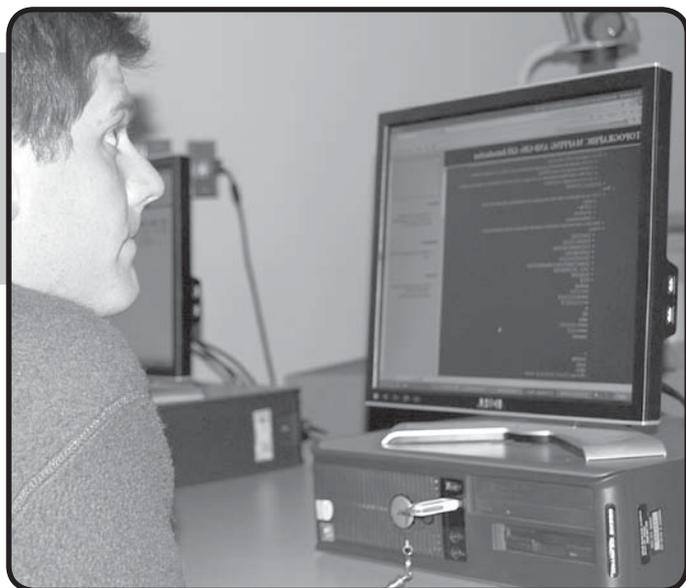
\* indicates prerequisite needed

### MICROSOFT CERTIFIED APPLICATION SPECIALIST- WORD

Course	No.	Title	Credits
OO	266*	Microsoft Word	3

\* indicates prerequisite needed

Note: After successfully completing the course listed above, students are prepared to take the MCAS Word industry certification (depending on the student's consideration of readiness) examination at the local certified



Testing Center.

## MICROSOFT CERTIFIED APPLICATION SPECIALIST- POWERPOINT

Course	No.	Title	Credits
CIT	140*	Presentation Fundamentals	1

\* indicates prerequisite needed

Note: After successfully completing the course listed above, students are prepared to take the MCAS PowerPoint industry certification (depending on the student's consideration of readiness) examination at a local certified Testing Center.

## MICROSOFT CERTIFIED APPLICATION SPECIALIST- EXCEL

Course	No.	Title	Credits
CIT	220*	Electronic Spreadsheets	3

\* indicates prerequisite needed

Note: After successfully completing the course listed above, students are prepared to take the MCAS Excel industry certification (depending on the student's consideration of readiness) examination at a local certified Testing Center.

## MICROSOFT CERTIFIED APPLICATION SPECIALIST-ACCESS

Course	No.	Title	Credits
CIT	205*	Database Management	3

\* indicates prerequisite needed

Note: After successfully completing the course listed above, students are prepared to take the MCAS Access industry certification (depending on the student's consideration of readiness) examination at a local certified Testing Center.

## MICROSOFT CERTIFIED SYSTEM ADMINISTRATOR (MCSA)

Course	No.	Title	Credits
CIT	126*	Networking Basics	3
CIT	166*	Computer Operating Systems	4
CIT	176*	Router & Routing Basics	3
CIT	211*	Network Operating Systems II	2
CIT	272*	PC Troubleshooting/Maintenance	4

\* indicates prerequisite needed

The MCSA is a new Microsoft Exam that combines Microsoft industry examinations with CompTIA certification examinations. Inquire with the Computer Technology faculty for specifics on the certification and for a

schedule of semester classes to meet your certification and educational goals. Not all courses are offered every semester.

## WOW CERTIFIED WEB DESIGNER ASSOCIATE (CWDSA) WOW CERTIFIED ASSOCIATE WEB MASTER (CAW)

Course	No.	Title	Credits
CIT	229*	Web Page Construction	3
CIT	231*	Web Page Design	3
CIT	250*	Web Page Programming	3
CIT	217*	Computer Graphic Design	4

\* indicates prerequisite needed

The CWDSA certification is an industry-standard test to show the student's proficiency in the visual arts and in creating the images and designs that capture and keep visitors' interest. They present aesthetically enticing designs that meet the requirements and preferences of their audience.

The CAW certification is an industry-standard test to show the student's proficiency in blending the art of HTML-coding with the visual arts to create pages that are content-rich and visually pleasing. Certified web masters are proficient at page layout, image creation and manipulation, interactivity, content creation, project and business management.

Note: After successfully completing the courses listed above, students are prepared to take either or both of the WOW certification examinations listed (depending on the student's consideration of readiness) at a local certified Testing Center.

## DEGREE AND CERTIFICATE PROGRAMS

Through the Center for Extended Studies and the College's Academic Departments, the Division of Outreach and Workforce Development offers Associate Degree and Certificate programs that digress from the traditional academic structure through non-standardized coursework to both the on- and off-campus communities. These programs are frequently offered through cohorts, evening, weekend, online, and accelerated programs to meet the needs of working students and others who require various flexibilities to meet their educational goals. Current programs include:

### ~ EMS: Fire & Rescue Technology (Associate of Applied Science - AAS)

This degree program combines technical fire and rescue training with general education courses to fulfill Associate of Applied Science Degree requirements. It also incorporates the opportunity to transfer credits toward a bachelor's degree in Fire Administration. The Fire and Rescue Technology Option is offered as a cooperative endeavor between Montana State University - Great Falls College of Technology and Montana State University Fire Services Training School-Great Falls. For more information see page 52.

### ~ Radiologic Technology Associate of Applied Science Degree Completion Option (AAS)

Students who have successfully completed and documented that they graduated from an accredited Radiologic Technology program, are currently working in the field of radiology, and possess a current Radiologic Technologist State license may apply to the College's Radiologic Technology AAS Degree Completion program and earn a College degree by taking as little as 17 college credits. For more information see page 69.

## 116 COURSES

Courses assigned a course number of 116 are considered credit-bearing professional and continuing education courses. They are typically offered to provide condensed coursework to meet the needs of working students, professionals in need of skills upgrades, fulfill some of the requirements of Professional Certifications, offer a diversity of electives

# Division of OUTREACH & WORKFORCE DEVELOPMENT

for Associate of Arts or Associate of Science degree seeking students, and fill certain professional certification needs (e.g. Montana K-12 Teacher Certification). These courses are eligible for financial aid for students using them as electives in degree and certificate programs where authorized. Students should consult their advisor to identify whether 116 courses will apply toward their program requirements. 116 courses are transcribed on the student's undergraduate transcript.

116 courses provide participants with the latest in technology, business, health and human development and other topics meeting the current trends and demands of the workplace. These credit-bearing courses (typically 1 credit) are offered each semester on the MSU – Great Falls campus and through the College of Technology in Bozeman.

## **CONTINUING EDUCATION CENTER**

The Continuing Education Center provides non-credit courses that train and upgrade participants' skills in health, business management, general education, technology fields, and other identified needs of Montana's workforce and business community. These are primarily delivered through non-credit courses with a 199 number.

### **199 COURSES**

Courses assigned a 199 number are considered non-credit professional and continuing education courses. They are typically offered to provide condensed coursework to meet the needs of working students and professionals in need of skills upgrades, fulfill some of the requirements of Professional Certifications, and certain professional certification needs (e.g. OPI Renewal Units for Montana K-12 Teacher Certification). These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units. They are transcribed on the student's continuing education transcript.

Semester schedules with 199 courses covering a variety of training topics are mailed to those interested. Please call the College at 406-771-4300 or 1-800-446-2698 to request that your name be added to the mailing list. You can also join our mailing list by going to our website at <http://outreach.msugf.edu> for Great Falls Courses and <http://outreach.msugf.edu/bozeman> for Bozeman courses.

### **CONTINUING EDUCATION UNITS (CEU'S)**

Courses offered through the Continuing Education Center are eligible for Continuing Education Units (CEU's). These are awarded to the student upon successful completion of the course and are recorded on the student's continuing education transcript. CEU's are awarded based on national accreditation guidelines of 1 CEU = 10 Contact hours. In addition to CEU's, courses offered through the Continuing Education Center are also eligible for Office of Public Instruction (OPI) Renewal Units. These are awarded on a 1 Renewal Unit = 1 Contact hour formula.

## **CUSTOMIZED TRAINING CENTERS**

### **LOCATIONS IN GREAT FALLS AND BOZEMAN**

Through the Training Centers in Great Falls and in Bozeman, the College's Customized Training Centers assist businesses, including those located in rural communities, to maximize their ability to make a profit. By developing customized training programs matched to business needs, the centers bring together groups of people for effective exchange of knowledge, and provide specialized, effective training for all areas of business. Examples of training currently being offered include: Customer Service, Telephone Etiquette, Sales Training, Train the Trainer, Supervisory Skills, Records Management, Communication Styles, Time Management, Business Plans, Cash Flow Management, Computer Skills, Marketing

on the Internet, E-Commerce, Advertising, Successful Business Writing, Innovation and Creativity, Conflict Management, Technology Applications and Professional Image, among other topics.

Customized Business and Professional Training provides the highest quality training solutions to the greater Great Falls and Bozeman communities. We invite you to join other great local companies-Great Falls Clinic, Davidson Companies, and 3Rivers Communications to name a few-and take advantage of this powerful training resource.

### **Customized Training Representatives**

Bozeman: 406-522-0830 or Great Falls: 406-454-3217

## **MSU – GREAT FALLS TESTING CENTER**

The MSU – Great Falls College of Technology Testing Center is an official Prometric, Pearson VUE, and Certiport testing facility. Prometric, Pearson VUE, and Certiport are the world's leading provider of computer-based testing and assessment services.

The Testing Center offers more than 125 exams in various categories, including information technology certification and professional licensure. These exams include:

- Microsoft Certifications (MCP, MCSA, MCSE, MCAS)
- CompTIA Certifications (A+, Network+)
- Cisco Certification (CCDA, CCNA, CCNP)
- Oracle Certification (DBA, OCP)
- Certified Internet Webmaster (Web Developer, site designer)

### **REGISTERING FOR EXAMS**

To learn more about registering for an exam, please call (406) 771-4391 during business hours Monday through Friday. Exams can be scheduled during the hours of 12 noon to 5 pm Monday, 8 am to 5 pm Tuesday through Thursday, and 12 noon to 5 pm on Fridays. Special appointments for exams may be available by contacting the Testing Center.

Register in person for Certiport exams (e.g. Microsoft Office Specialist) or online at [www.2test.com](http://www.2test.com) (Prometric) or [www.pearsonvue.com](http://www.pearsonvue.com) (Pearson VUE).

### **OUR LOCATION**

The MSU – Great Falls Testing Center is housed on the MSU – Great Falls Campus at 2100 16th Ave South, Great Falls, MT 59405.

### **IT CERTIFICATION INFORMATION**

For more information on various industry certifications, please visit the websites listed below:

- Cisco certifications: [www.cisco.com](http://www.cisco.com)
- CompTIA certifications: [www.comptia.org](http://www.comptia.org)
- Microsoft certifications: [www.mcpmag.com](http://www.mcpmag.com)
- Microsoft certifications: [www.microsoft.com/traincert](http://www.microsoft.com/traincert)
- Oracle certifications: [www.oracle.com](http://www.oracle.com)
- World Organization of Webmasters: [www.webprofessionals.org/certification/index.html](http://www.webprofessionals.org/certification/index.html)



dreams

future

college

community



**YOU**  
that's what we're about

Academic PROGRAMS



# YOUR Future - ACADEMIC PROGRAMS

## MONTANA UNIVERSITY SYSTEM CORE

In our world of rapid economic, social, and technological change, students need a strong and broadly-based education. General education helps students achieve the intellectual integration and awareness they need to meet challenges in their personal, social, political, and professional lives. General education courses introduce great ideas and controversies in human thought and experience. A solid general education provides a strong foundation for the life-long learning that makes career goals attainable. The breadth, perspective, and rigor provided by the core curriculum helps students become educated people.

Montana State University-Great Falls College of Technology's General Education Core reflects the Montana University System's General Education Core. As students work on the Montana University System General Education Core, they should attempt to select classes that are also required in their major. That efficient use of coursework could help students complete their degrees more quickly, since the classes could be used to satisfy both the requirements of the major and the requirements of the MUS General Education Core. After completion of core requirements students will be able to:

- Demonstrate understanding of major findings and ideas in a variety of disciplines.
- Demonstrate understanding of methods, skills, tools and systems used in a variety of disciplines, and historical, theoretical, scientific, technological, philosophical, and ethical bases in a variety of disciplines.
- Use appropriate technologies to conduct research on and communicate about topics and questions; to access, evaluate and manage information; to prepare and present their work effectively, and to meet academic, personal, and professional needs.
- Demonstrate critical analysis of arguments and evaluation of an argument's major assertions, its background assumptions, the evidence used to support its assertions, and its explanatory utility.
- Understand and articulate the importance and influence of diversity within and among cultures and societies.
- Understand and apply mathematical concepts and models.
- Communicate effectively, through written and oral communication and through other forms as appropriate.

## STUDENT LEARNING OUTCOMES FOR MSU-GREAT FALLS COLLEGE OF TECHNOLOGY CORE:

### Communication

#### (English Composition and Oral Communication):

- Demonstrate an understanding of writing as a series of tasks, including finding, evaluating, analyzing, and synthesizing appropriate sources, and as a process that involves composing, editing, and revising.
- Demonstrate critical reading and analytical skills, including understanding an argument's major assertions and assumptions and how to evaluate its supporting evidence.
- Demonstrate research skills, integrate one's own ideas with those of others, and apply the conventions of attribution and citation correctly.
- Use Standard Written English and edit and revise one's own writing for appropriateness.
- Enhance the fluency and range of vocabulary and syntax with which to meet the requirements of different rhetorical situations.
- Develop proficiency in oral discourse.
- Produce and deliver a clear, well organized verbal presentation.
- Interact in a collaborative, synergistic manner within a small-group problem-solving meeting.

- Use appropriate technologies to conduct research on and communicate about emerging issues and to access, evaluate, and manage information to prepare and present one's work effectively.
- Demonstrate understanding of the interconnections of knowledge within and across disciplines.

### Mathematics:

- Interpret mathematical modes given verbally, or by formulas, graphs, tables, or schematics, and draw inferences from them.
- Represent mathematical concepts verbally, and where appropriate, symbolically, visually, and numerically.
- Use arithmetic, algebraic, geometric, technological, or statistical methods to solve problems.
- Use mathematical reasoning with appropriate technology to solve problems, test conjectures, judge the validity of arguments, formulate valid arguments, check answers to determining reasonableness, and communicate the reasoning of the results.
- Recognize and use connections within mathematics and between mathematics and other disciplines.

### Humanities/Fine Arts:

- Investigate the role and values of art in human life and demonstrate an understanding of the significance of specific art forms to the cultures that create and adopt them.
- Describe specific processes by which works of painting, sculpture, architecture, music, dance, theater, film, multi media, or environmental art are created.
- Demonstrate the dependence of meaning upon cultural and historical context when analyzing works of art.
- Compare and contrast one work of art with another or one medium with another to illuminate both.
- Investigate the variety of human culture and demonstrate an understanding of the ways in which cultures have changed.
- Understand and employ a wide range of humanistic, qualitative, quantitative, theoretical, or philosophical methods for recording and explaining human experience.
- Identify and assess one's own and others' values; identify the underlying premises in one's own and others' arguments.
- Investigate the role and value of literature in human life and demonstrate an understanding of the significance of specific literary works or genres to the cultures that create them and adopt them.
- Identify and use a variety of arts materials, techniques and resources while creating works of art.

### Natural Science:

- Use quantitative information and/or mathematical analysis to obtain sound results and recognize questionable assumptions.
- Demonstrate understanding of the broad principles of science and the ways scientists in a particular discipline conduct research.
- Make observations, understand the fundamental elements of experimental design, generate and analyze data using appropriate quantitative tools, use abstract reasoning to interpret the data and formulae, and test hypotheses with scientific rigor.
- Understand the role that human diversity plays in the practice and history of science.
- Demonstrate proficiency in the collection, interpretation, and presentation of scientific data.

## Social Sciences/History:

- Demonstrate knowledge of findings and theories in the social and behavioral sciences.
- Demonstrate an understanding of investigative methods used in the social and behavioral sciences.
- Demonstrate critical thinking about arguments in the social and behavioral sciences and evaluate an argument's major assertions, its background assumptions, the evidence used to support its assertions, and its explanatory utility. Demonstrate knowledge of important findings and theories in social and political history.
- Demonstrate an understanding of investigative methods used in social and political history.

## Cultural Diversity:

- Investigate major issues and scholarly approaches related to diversity.
- Analyze concepts and implications of diversity.
- Demonstrate an understanding of historical, cultural, social, or political conditions and the ways in which they influence the status, treatment, or accomplishments of various groups.
- Articulate how diversity helps shape the role of the individual and the interconnections and relationships within and among groups across societies and cultures

## Cultural Heritage of American Indians:

Courses include significant content related to the cultural heritage of American Indians.

## MONTANA UNIVERSITY SYSTEM CORE COURSES Offered Online and On Campus.

### COMMUNICATION--6 CREDITS

(Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I AND 1 of the following	3†
COLS	101	First Year Seminar	3†
COMM	130	Public Speaking	3†
COMM	135	Interpersonal Communication	3†

### MATHEMATICS--3 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4†
MATH	131**	Precalculus Trigonometry	3†
MATH	150**	Math for Liberal Arts	3†
MATH	161**	College Algebra w/ Science App	3†
MATH	181**	Calculus I	4†
MATH	216**	Basic Statistics	4†

### HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3†
ART	114	Art Fundamentals	3†
ART	140	Drawing I	3†
DE	161	Introduction to Design	3†
ENGL	114	Intro to Literature	3†
ENGL	210*	World Literature I	3†
ENGL	211*	World Literature II	3†
ENGL	217	Creative Writing	3†
HUM	242	Gender & Equality	3†
MUS	102	Fundamentals of Music	3†
MUS	210	Music Appreciation	3†
MUS	212	American Music	3†
MUS	214	World Music	3†
PHIL	101	Introduction to Philosophy	3†
PHIL	232	Basic Ethics	3†

## NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103**	Introduction to Biology/Lab	4†
BIO	107**	Fund of Human Biology/Lab	4†
BIO	151*	Molecular & Cellular Biology/Lab	4†
BIO	152	Organismal Biology/Lab	4†
BIO	205	Personal Nutrition	3†
CHM	111*	Inorganic Chemistry/Lab	4†
CHM	131*	General Chemistry I	4†
CHM	132*	General Chemistry II	4†
GEOG	101	Introduction to Geology	4†
PHYS	110	Survey of Natural Sciences	3†
PHYS	130	Fund Physical Science w/Lab	4†

## SOCIAL SCIENCES / HISTORY --6 CREDITS

Course	No.	Title	Credits
ECON	102	Economics I (Macro)	3†
ECON	201	Economics II (Micro)	3†
HIST	103N	History of the U.S. I	3†
HIST	104N	History of the U.S. II	3†
HIST	106	History of Western Civ I	3†
HIST	107	History of Western Civ II	3†
HIST	210N	Montana History	3†
PSY	101	General Psychology	3†
PSY	109	Lifespan Development	3†
SOC	111	Introduction to Sociology	3†
SOC	115	Survey of Criminal Justice	3†
POLS	206	U.S. Government	3†

## CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3†
BUS	249	Global Marketing	3†
ENGL	214N	Literature of the West	3†
HUM	244	American Cultural Values	3†
ML	121	Intro to American Sign Lang	3†
NAS	201N	Montana's American Indians	3†
NAS	215N	Native American Religious Trad	3†

## CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

## TOTAL CREDITS – 31

~Many students need preliminary math, English or biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

**As students work on the MUS general education core, they should attempt to elect classes that are required in their major. That efficient use of coursework could help students complete their degree more quickly, since the classes could be used to satisfy both the requirements of the major and the requirements of the MUS General Education Core.**

**Students should consult with the intended receiving institution to determine whether or not additional core courses may be required to satisfy that institution's General Education Core.**

**Upon completion of the General Education Core, please notify the Registrar to have the core indicated on your transcript.**

# YOUR Future - ACADEMIC PROGRAMS

## ASSOCIATE OF ARTS DEGREE

The Associate of Arts (AA) focuses on education across academic disciplines. Focusing on integration of information while increasing a student's employability, the AA focuses on transferability to a baccalaureate program.

To receive the AA degree, the following requirements must be completed:

- Montana University System Core Requirements (31 semester hours);
- Computer Skills/Usage requirement (3 semester hours);
- 9 credits of coursework in the arts, humanities and social sciences;
- 17 credits of Electives; and
- A final cumulative grade point average of at least 2.0.

Courses taken to fulfill one specific requirement, including courses in the Concentration or Elective blocks, may not be used to fulfill another specific requirement; thus, a course taken to fulfill the Cultural Diversity requirement in the Montana University System Core may not be used as an Elective.

### Outcomes: Graduates are prepared to:

- Demonstrate the outcomes achievable by completing the Montana University System Core;
- Select and use the appropriate technologies for personal, academic or career tasks;
- Think critically about theories and applications from multiple disciplines when evaluating information, solving problems, and making decisions.

## I. MONTANA UNIVERSITY SYSTEM CORE - 31 SEMESTER HOURS OFFERED ONLINE AND ON CAMPUS.

### COMMUNICATION--6 CREDITS

(Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I <b>AND 1 of the following</b>	3†
COLS	101	First Year Seminar	3†
COMM	130	Public Speaking	3†
COMM	135	Interpersonal Communication	3†

### MATHEMATICS--3 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4†
MATH	131**	Precalculus Trigonometry	3†
MATH	150**	Math for Liberal Arts	3†
MATH	161**	College Algebra w/ Science App	3†
MATH	181**	Calculus I	4†
MATH	216**	Basic Statistics	4†

### HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3†
ART	114	Art Fundamentals	3†
ART	140	Drawing I	3†
DE	161	Introduction to Design	3†
ENGL	114	Intro to Literature	3†
ENGL	210*	World Literature I	3†
ENGL	211*	World Literature II	3†
ENGL	217	Creative Writing	3†
HUM	242	Gender & Equality	3†
MUS	102	Fundamentals of Music	3†
MUS	210	Music Appreciation	3†
MUS	212	American Music	3†
MUS	214	World Music	3†
PHIL	101	Introduction to Philosophy	3†
PHIL	232	Basic Ethics	3†

### NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103**	Introduction to Biology/Lab	4†
BIO	107**	Fund of Human Biology/Lab	4†
BIO	151*	Molecular & Cellular Biology/Lab	4†
BIO	152	Organismal Biology/Lab	4†
BIO	205	Personal Nutrition	3†
CHM	111*	Inorganic Chemistry/Lab	4†

CHM	131*	General Chemistry I	4†
CHM	132*	General Chemistry II	4†
GEOL	101	Introduction to Geology	4†
PHYS	110	Survey of Natural Sciences	3†
PHYS	130	Fund Physical Science w/Lab	4†

### SOCIAL SCIENCES/ HISTORY --6 CREDITS

Course	No.	Title	Credits
ECON	102	Economics I (Macro)	3†
ECON	201	Economics II (Micro)	3†
HIST	103N	History of the U.S. I	3†
HIST	104N	History of the U.S. II	3†
HIST	106	History of Western Civ I	3†
HIST	107	History of Western Civ II	3†
HIST	210N	Montana History	3†
PSY	101	General Psychology	3†
PSY	109	Lifespan Development	3†
SOC	111	Introduction to Sociology	3†
SOC	115	Survey of Criminal Justice	3†
POLS	206	U.S. Government	3†

### CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3†
BUS	249	Global Marketing	3†
ENGL	214N	Literature of the West	3†
HUM	244	American Cultural Values	3†
ML	121	Intro to American Sign Lang	3†
NAS	201N	Montana's American Indians	3†
NAS	215N	Native American Religious Trad	3†

### CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

## II. COMPUTER SKILLS/USAGE - 3 CREDITS

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3
CIT	111	Intro to Computers for Tech Majors	3

or any CIT 3 credit hour course that has CIT 110 as a prerequisite

*NO MORE THAN 5 CREDITS OF COURSES NUMBERED 116 MAY BE APPLIED TOWARD THE DEGREE.*

## III. CONCENTRATION IN ARTS, HUMANITIES, SOCIAL SCIENCES - 9 CREDITS

Students may choose coursework numbered 100 or above from any of the following discipline areas to complete the required 9 credits of coursework in arts, humanities, and social sciences.

(ART) Art, (ANTH) Anthropology, (COMM) Communication, (ECON) Economics, (EDPY) Educational Psychology, (ENGL) English (except ENGL 118, ENGL 119 or ENGL 120), (HIST) History, (HUM) Humanities, (MUS) Music, (ML) Modern Languages, (NAS) Native American Studies, (POLS) Political Science, (PHIL) Philosophy, (PSY) Psychology, (SOC) Sociology

## IV. ELECTIVES - 17 CREDITS

Students may choose coursework numbered 100 or above from any discipline area to complete the required 17 credits of electives. Students may not choose or may not count the following courses:

MATH 100, MATH 101, MATH 103, MATH 104, MATH 108, ENGL 118, ENGL 119, ENGL 120

## TOTAL PROGRAM CREDITS - 60

~Many students need preliminary math, English or biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## ASSOCIATE OF SCIENCE DEGREE

The Associate of Science (AS) Degree focuses on education in specific knowledge areas, most typically in math and natural sciences. Focusing on integration of information while increasing a student's employability, the AS focuses on transferability to a baccalaureate program.

To receive the AS degree, the following requirements must be completed:

- Montana University System Core Requirements (31 semester hours);
- Computer Skills/Usage requirement (3 semester hours);
- 9 credits of coursework in Math and Science
- 17 credits of Electives; and
- A final cumulative grade point average of at least 2.0.

Courses taken to fulfill one specific requirement, including courses in the Elective block, may not be used to fulfill another specific requirement; thus, a course taken to fulfill the Natural Science requirement in the Montana University System Core may not be used as an Elective.

Students who complete the Associate of Science degree will:

- Demonstrate the outcomes achievable by completing the Montana University System Core;
- Select and use the appropriate technologies for personal, academic or career tasks;
- Think critically in evaluating information, solving problems and decision-making;
- Consider the application of the natural and physical sciences and mathematics in the context of today's world.

### I. MONTANA UNIVERSITY SYSTEM CORE - 31 SEMESTER HOURS OFFERED ONLINE AND ON CAMPUS.

#### COMMUNICATION--6 CREDITS

(Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I	3†
<b>AND 1 of the following</b>			
COLS	101	First Year Seminar	3†
COMM	130	Public Speaking	3†
COMM	135	Interpersonal Communication	3†

#### MATHEMATICS--3 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4†
MATH	131**	Precalculus Trigonometry	3†
MATH	150**	Math for Liberal Arts	3†
MATH	161**	College Algebra w/ Science App	3†
MATH	181**	Calculus I	4†
MATH	216**	Basic Statistics	4†

#### HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3†
ART	114	Art Fundamentals	3†
ART	140	Drawing I	3†
DE	161	Introduction to Design	3†
ENGL	114	Intro to Literature	3†
ENGL	210*	World Literature I	3†
ENGL	211*	World Literature II	3†
ENGL	217	Creative Writing	3†
HUM	242	Gender & Equality	3†
MUS	102	Fundamentals of Music	3†
MUS	210	Music Appreciation	3†
MUS	212	American Music	3†
MUS	214	World Music	3†
PHIL	101	Introduction to Philosophy	3†
PHIL	232	Basic Ethics	3†

#### NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103**	Introduction to Biology/Lab	4†
BIO	107**	Fund of Human Biology/Lab	4†
BIO	151*	Molecular & Cellular Biology/Lab	4†
BIO	152	Organismal Biology/Lab	4†
BIO	205	Personal Nutrition	3†
CHM	111*	Inorganic Chemistry/Lab	4†
CHM	131*	General Chemistry I	4†
CHM	132*	General Chemistry II	4†
GEOL	101	Introduction to Geology	4†
PHYS	110	Survey of Natural Sciences	3†
PHYS	130	Fund Physical Science w/Lab	4†

#### SOCIAL SCIENCES/ HISTORY --6 CREDITS

Course	No.	Title	Credits
ECON	102	Economics I (Macro)	3†
ECON	201	Economics II (Micro)	3†
HIST	103N	History of the U.S. I	3†
HIST	104N	History of the U.S. II	3†
HIST	106	History of Western Civ I	3†
HIST	107	History of Western Civ II	3†
HIST	210N	Montana History	3†
PSY	101	General Psychology	3†
PSY	109	Lifespan Development	3†
SOC	111	Introduction to Sociology	3†
SOC	115	Survey of Criminal Justice	3†
POLS	206	U.S. Government	3†

#### CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3†
BUS	249	Global Marketing	3†
ENGL	214N	Literature of the West	3†
HUM	244	American Cultural Values	3†
ML	121	Intro to American Sign Lang	3†
NAS	201N	Montana's American Indians	3†
NAS	215N	Native American Religious Trad	3†

#### CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

### II. COMPUTER SKILLS/USAGE - 3 CREDITS

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3
CIT	111	Intro to Computers for Tech Majors	3

or any CIT 3 credit hour course that has CIT 110 as a prerequisite

*NO MORE THAN 5 CREDITS OF COURSES NUMBERED 116 MAY BE APPLIED TOWARD THE DEGREE.*

### III. CONCENTRATION IN MATH AND SCIENCE -- 9 CREDITS

Students may choose coursework numbered 100 or above from any of the following discipline areas to complete the required 9 credits of electives.

(BIO) Biology, (CHM) Chemistry, (GEOL) Geology, (MATH) Math\*\* (except 100, 101, 103, 104, or 108), (PHYS) Physical Science

### IV. ELECTIVES - 17 CREDITS

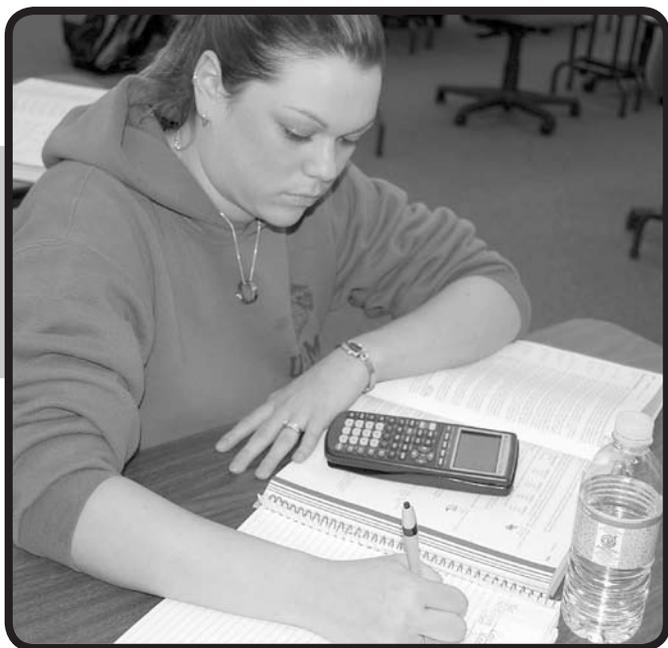
Students may choose coursework numbered 100 or above from any discipline area to complete the required 17 credits of electives. Students may not choose or may not count the following courses:

MATH 100, MATH 101, MATH 103, MATH 104, MATH 108, ENGL 118, ENGL 119, ENGL 120

#### TOTAL PROGRAM CREDITS - 60

~Many students need preliminary math, English or biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

# YOUR Future - ACADEMIC PROGRAMS



## ACCOUNTING ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor:** Jon Nitschke

Upon completion of the Accounting Degree program students will be prepared for employment in general accounting occupations. They will be prepared to work in public, private, or governmental agencies as accounting clerks, accounting technicians, bookkeepers, accounting support personnel, or payroll assistants.

### Outcomes: Graduates are prepared to:

- Prepare financial records for a business.
- Prepare and interpret financial statements of a business while applying generally accepted accounting principles.
- Understand internal controls necessary in business organizations.
- Perform accounting functions for sole proprietorships, partnerships and corporations.
- Use computerized accounting software.
- Communicate professionally, both orally and in writing.
- Compute payrolls and prepare basic federal and state payroll tax forms and returns.
- Prepare basic income tax returns for individuals and businesses using commercial tax preparation software.

### Estimated Resident Program Cost:

Tuition and Fees .....	\$5999
Application Fee.....	30
Books/Supplies .....	2250
TOTAL.....	\$8279

### FALL SEMESTER 1

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3+
COMM	135	Interpersonal Communication	3
CIT	110	Introduction to Computers	3
ENGL	121**	Composition I	3
MATH	104**	Business Math	4
OO	107	Keyboarding Basics	3
		Subtotal	19

### SPRING SEMESTER 1

Course	No.	Title	Credits
ACCT	102*	Accounting Procedures II	3+
ACCT	190*	Payroll Accounting	3+
BUS	106	Introduction to Business	3
CIT	120*	Internet Essentials	2
MATH	108**	Algebra for College Students <b>OR</b>	
MATH	130**	Precalculus Algebra	4
OO	173	Computer Calculators	1
		Subtotal	16

### FALL SEMESTER 2

Course	No.	Title	Credits
ACCT	221*	Financial Accounting	3+
ACCT	224*	Computerized Accounting	3+
BUS	255*	Legal Environment	3
CIT	220*	Electronic Spreadsheets	3
ENGL	124**	Business & Profession Comm <b>OR</b>	
ENGL	228*	Strategies of Business Comm	3
		Subtotal	15

### SPRING SEMESTER 2

Course	No.	Title	Credits
ACCT	222*	Managerial Accounting	3+
ACCT	231*	Income Tax Fundamentals	3+
CIT	205*	Database Management	3
OO	266*	Microsoft Word	3
OO	220	Preparing Resumes <b>OR</b>	
OO	221	Interviewing for Jobs	1
		Electives (see below)	3
		Subtotal	16

### SUGGESTED ELECTIVES

Course	No.	Title	Credits
BUS	249	Global Marketing	3
BUS	230*	Management	3
CIT	140*	Presentation Fundamentals	1
CIT	229*	Web Page Construction	3
CIT	231*	Web Page Design	3
CIT	250*	Web Page Programming	3
CIT	280*	Desktop Publishing	3
MATH	216**	Basic Statistics	4
MATH	217**	Intermediate Statistics	3

### TOTAL PROGRAM CREDITS – 66 ~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## ACCOUNTING ASSISTANT CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Jon Nitschke

All credits earned in completion of the certificate may be applied toward the Associate of Applied Science degree in Accounting.

Upon completion of the Accounting Assistant program students will be prepared for entry-level employment in accounts receivable, accounts payable, payroll, and general accounting.

### **Outcomes: Graduates are prepared to:**

- Process daily accounting transactions, journals, and ledgers and handle other entry-level accounting functions.
- Prepare basic financial statements.
- Prepare payrolls for a business.
- Manage cash and accrual accounting procedures.
- Use business computer application software.
- Communicate professionally, both in person and in writing.
- Solve basic business problems.

### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$4499
Application Fee .....	30
Books/Supplies .....	<u>1125</u>
TOTAL .....	\$5654

### FALL SEMESTER 1

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3†
CIT	110	Introduction to Computers	3
ENGL	121**	Composition I	3
MATH	104**	Business Mathematics	4
OO	107	Keyboarding Basics	<u>3</u>
		Subtotal	16

### SPRING SEMESTER 2

Course	No.	Title	Credits
ACCT	102*	Accounting Procedures II	3†
ACCT	190*	Payroll Accounting	3†
COMM	135	Interpersonal Communication	3
OO	173*	Computer Calculators	1
OO	266*	Microsoft Word	<u>3</u>
		Subtotal	13

### SUMMER SEMESTER 3

Course	No.	Title	Credits
CIT	220*	Electronic Spreadsheets	3
		Elective	<u>3</u>
		Subtotal	6

### SUGGESTED ELECTIVES

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3
CIT	205*	Database Management I	3
OO	179	Records Management	3

### TOTAL PROGRAM CREDITS – 35 ~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



# YOUR Future - ACADEMIC PROGRAMS

## AUTO BODY REPAIR AND REFINISHING ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor: Jason Harding**

Auto Body Repair and Refinishing offers both variety and challenge. Each damaged vehicle presents a different problem. Repairers must develop appropriate methods for each job using their broad knowledge of automotive construction and repair techniques.

The Auto Body Repair and Refinishing program offers training to students who seek marketable skills in auto body repair, painting, welding, and auto body shop management. Electives are combined with regular course work enabling students to develop business skills.

Auto Body students are required to provide their own hand tools, safety glasses, and protective clothing. A complete list of the required tools and equipment is available from Auto Body instructors.

### Outcomes: Graduates are prepared to:

- Identify and demonstrate safety practices and procedures;
- Use hand, pneumatic and power tools;
- Remove, align and install bolt-on components;
- Prepare and use fill materials;
- Perform techniques of welding;
- Prepare a vehicle spot or complete refinishing;
- Formulate spray with numerous paint products;
- Write a collision estimate;
- Use technology and computer skills as they apply to work;
- Communicate well in the workplace.

The Auto Body program receives input from industry experts when developing, modifying or changing courses in the program.

### Estimated Resident Program Cost:

Tuition and Fees .....	\$5999
Application Fee.....	30
Clothing .....	100
Lab Fees.....	280
Tools .....	1600
Books/Supplies.....	560
TOTAL.....	\$8569

### FALL SEMESTER 1

Course	No.	Title	Credits
MATH	100	Math for Trades Programs	3
TB	112	Auto & Paint Shop Safety	1
TB	130	Basic Auto Construction	2
TB	134	Correcting Sheet Metal	3
TB	141	Surface Prep and Undercoats	3
TB	142	Top Coat Applications	3
		Subtotal	15

### SPRING SEMESTER 1

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3
TB	136*	Correcting Collision Damage	5
TB	150*	Paint Removal	3
TB	153*	Overall Refinishing	3
TB	154*	Paint Problems	1
		Subtotal	15

### FALL SEMESTER 2

Course	No.	Title	Credits
COMM	135	Interpersonal Communication	3
TB	220*	Fiberglass & Plastic Repair	3
TB	243*	Panel Replacement	3
TB	248*	Spot Repair and Blending	3
TB	249*	Paint Formulation & Tinting	3
		Subtotal	15

### SPRING SEMESTER 2

Course	No.	Title	Credits
ENGL	---	119**or higher	3
TB	245*	Production Body Repair	3
TB	246*	Total Body Reb & Sec	3
TB	250*	Production Refinishing	3
TB	254*	Specialty Finishes	1
TB	255*	Estimating Collision Damage	3
		Subtotal	16

### TOTAL PROGRAM CREDITS - 61~

~Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## AVIATION

### ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Ryan Haskins

#### NOTE: PROGRAM OFFERED ONLY AT THE COLLEGE OF TECHNOLOGY IN BOZEMAN

Students completing the AAS in Aviation will have all credentials required to pursue a career as a professional pilot. The program offers in-depth training in all stages of pilot certification: Private Pilot, Instrument Rating, and Commercial Pilot. The program also offers classroom training in Aircraft Systems, Advanced Navigation Systems, Aviation Safety, Flight Instructor/ Aircraft Theory, and Aviation Regulations and Professional Conduct.

#### Outcomes: Graduates are prepared to:

- Apply knowledge in aviation to adapt to emerging aviation trends.
- Conduct themselves professionally and ethically.
- Understand and analyze the role of aviation safety and human factors to the aviation industry.
- Describe meteorology as it relates to aviation.
- Independently fly and safely operate airplanes for which they are rated.
- Demonstrate an understanding and the appropriate application of aeronautical principles, design characteristics, and operational limitations, for a variety of aircraft as it relates to the student's career goals
- Communicate effectively using both written and verbal skills.
- Demonstrate proficiency in math computation for aviation and modern society.
- Demonstrate effective skills in the use of computers and aviation related technology.

Job opportunities range from high-profile occupations as pilots for national carriers to less well-known, but in-demand work as pilots for cargo services, air taxis, media aircraft, corporate jets, or spacecraft. Students who combine the AAS with a Bachelor's degree in a related field will be especially competitive in the entry level job market.

Completion of the AAS in Aviation requires that students contract with a flight school recommended by the Aviation MSUGF Advisory Council to complete the flight training leading to their Private pilot, Commercial pilot, and Instrument licenses. Upon submission of these certificates the student will receive credit for the following courses.

AST 142-Private Pilot Flight (50 flight hours)	2 credits
AST 242-Instrument Flight (75 flight hours)	2 credits
AST 252-Commercial Flight (125 flight hours)	4 credits

Students may enter the program having already completed flight training. If they have not completed flight training, the sequencing of courses in this outline is highly recommended.

FAA medical certificates are issued by FAA designated Aviation Medical Examiners (AMEs), and are required by all pilots who operate aircraft. The names, addresses and phone numbers of AMEs in your area may be found at the FAA web site ([www.faa.gov/pilots/amelocator/](http://www.faa.gov/pilots/amelocator/)) or you may contact the MSU-GF Director of Aviation for more information. Fees for FAA medical exams can range from \$90-\$120 depending on your location.

A student enrolled in the Aviation Science Technology Program must obtain at least a Class II medical certificate before his or her first training flight.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$5,999
Application Fee.....	30
Flight Training.....	36,574
Books/Supplies.....	1,500
TOTAL .....	\$44103

#### FALL SEMESTER

Course	No.	Title	Credits
AST	141	Aviation Fundamentals	3†
AST	142	Private Pilot Flight (50 flight hours)	2†
AST	143	Basic Air Navigation	3†
CIT	110	Intro to Computers	3†
MATH	150**	Math for Liberal Arts OR any math course in the MUS General Ed Core	3†
		Subtotal	14

#### SPRING SEMESTER

Course	No.	Title	Credits
AST	171	Aircraft Systems	3†
AST	241*	Advanced Navigation Systems	3†
AST	242	Instrument Flight (75 Flight Hours)	2†
AST	243*	Instrument/Commercial Theory I	3†
AST	250	Aviation Operations	3†
		Subtotal	14

#### FALL SEMESTER

Course	No.	Title	Credits
AST	245*	Instrument/Commercial Theory II	3†
AST	252*	Commercial Flight (125 flight hours)	4†
AST	261	Aviation Safety	3†
COMM	135	Interpersonal Communication	3†
PHYS	130	Fundamentals of Physical Science w/Lab	4†
		Subtotal	17

#### SPRING SEMESTER

Course	No.	Title	Credits
AST	260*	Flight Instructor Theory	3†
AST	262*	Advanced Aircraft Theory	3†
AST	263*	Aviation Regulations and Professional Conduct	3†
AST	281*	Certified Flight Instructor flight <i>OPTIONAL</i>	1†
PHYS	110	Survey of Natural Science	3†
ENGL	121**	Composition I	3†
		Subtotal	15-16

#### TOTAL PROGRAM CREDITS - 60 OR 61~

~Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

*This program has possible options with Rocky Mountain College's Bachelor of Science degree in Aviation in Billings, MT. For details contact Ryan Haskins, Program Director for Aviation Technology, 406-994-6151, [rhaskins@msuaf.edu](mailto:rhaskins@msuaf.edu), or Dan Hargrove, Director of Aviation at Rocky Mountain College, 406-657-1060, [aviation@rocky.edu](mailto:aviation@rocky.edu)*



# YOUR Future - ACADEMIC PROGRAMS

## BUSINESS MANAGEMENT / ENTREPRENEURSHIP

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisors:** Marilyn Besich  
Teri Dwyer

The Business Management/ Entrepreneurship program of study is designed to prepare students for employment in management positions in small business enterprises or to create and operate their own small business enterprises.

#### **Outcomes: Graduates are prepared to:**

- Utilize mathematical concepts and theories to analyze the viability of a business and to use those concepts and theories in the decision making process.
- Develop an understanding of societies and cultures and use that understanding to implement business practices reflecting the diversity of customers and employers.
- Incorporate social science theories and constructs from the fields of psychology and sociology into the application of management theories.
- Analyze the legal requirements and ethical implications of business decisions and how such decisions affect the business, community and society.
- Utilize computer hardware and software to effectively manage information.
- Analyze the feasibility of a business opportunity through development of a business plan.
- Utilize oral, written and listening skills to demonstrate an understanding of business practices and theories and effectively interact with others.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$5999
Application Fee.....	30
Books/Supplies .....	2700
TOTAL.....	\$8729



#### **FALL SEMESTER 1**

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3+
BUS	106	Introduction to Business	3+
COMM	135	Interpersonal Communication	3+
CIT	110	Introduction to Computers	3+
ENGL	121**	Composition I	3+
OO	107	Keyboarding Basics	3+
		Subtotal	18

#### **SPRING SEMESTER 2**

Course	No.	Title	Credits
ACCT	102*	Accounting Procedures II	3+
ACCT	190*	Payroll Accounting	3+
BUS	230*	Management	3+
BUS	235*	Marketing	3+
CIT	120*	Internet Essentials	2+
MATH	104**	Business Math	4+
		Subtotal	18

#### **FALL SEMESTER 3**

Course	No.	Title	Credits
ACCT	221*	Financial Accounting	3+
BUS	255*	Legal Environment	3+
CIT	220*	Electronic Spreadsheets	3+
MATH	108**	Algebra for College Students <b>OR</b>	
MATH	130**	Precalculus Algebra	4+
		Electives	3+
		Subtotal	16

#### **SPRING SEMESTER 4**

Course	No.	Title	Credits
ACCT	222*	Managerial Accounting	3+
BUS	240*	Advertising	3+
BUS	260*	Entrepreneurship	3+
ENGL	228*	Strategies of Bus Comm	3+
OO	220	Preparing Resumes <b>OR</b>	
OO	221	Interviewing for Jobs	1+
		Electives	3
		Subtotal	16

#### **SUGGESTED ELECTIVES – 6 CREDITS REQUIRED**

Course	No.	Title	Credits
ACCT	224*	Computerized Accounting	3
BUS	249	Global Marketing	3
CIT	140*	Presentation Fundamentals	1
CIT	205*	Database Management I	3
CIT	229*	Web Page Construction	3
CIT	231*	Web Page Design	3
CIT	250*	Web Page Programming	3
CIT	280*	Desktop Publishing	3

Other electives may be selected with advisor's prior approval.

#### **TOTAL PROGRAM CREDITS – 68~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

*This program has a transfer articulation agreement with  
Montana State University - Northern.  
For details please see the Transfer Section of this catalog.*

## COMPUTER ASSISTANT CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor: Jeff Brown**

The Computer Assistant program prepares individuals for operation of software programs and a basic knowledge of managing data and files. Coursework is designed to provide a solid foundation for microcomputer operation and develop essential business and computer skills. The course of study will prepare students to:

### Outcomes: Graduates are prepared to:

- Create, manage, and modify databases and attain the Microsoft Certified Application Specialist – Access.
- Create, manage, and modify electronic spreadsheets and attain the Microsoft Certified Application Specialist – Excel.
- Create, manage, and modify word processing documents and attain the Microsoft Certified Application Specialist – Word.
- Create effective web pages that include links, graphics, sound, tables, forms, and style sheets using common editors.
- Troubleshoot and repair microcomputers and attain the CompTIA A+ certification.

### Estimated Resident Program Cost:

Tuition and Fees .....	\$2999
Application Fee.....	30
Books/Supplies .....	850
<b>TOTAL.....</b>	<b>\$3879</b>

### FIRST SEMESTER

Course	No.	Title	Credits
CIT	110	Introduction to Computers <b>OR</b>	
CIT	111	Intro to Comp for Tech Majors	3†
CIT	120	Internet Essentials	2†
COMM	135	Interpersonal Communication	3†
ENGL	121**	Composition I	3†
MATH	108**	Algebra for College Students	4†
		Subtotal	15

### SECOND SEMESTER

Course	No.	Title	Credits
CIT	205*	Database Management	3†
CIT	272*	PC Troubleshooting & Maintenance	4†
CIT	220*	Electronic Spreadsheets	3†
CIT	229*	Web Page Construction	3†
OO	266*	Microsoft Word	3†
		Subtotal	16

### TOTAL PROGRAM CREDITS – 31~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



# YOUR Future - ACADEMIC PROGRAMS

## COMPUTER INFORMATION TECHNOLOGY MICROCOMPUTER SUPPORT

### ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Jeff Brown

Upon completion of the Microcomputer Support Degree, students will be able to maintain personal computers, repair and troubleshoot common hardware problems, and use and assist end-users in using common software applications.

#### Outcomes: Graduates are prepared to:

- Create, manage, and modify databases as preparation for the examination to attain the Microsoft Certified Application Specialist – Access.
- Create, manage, and modify electronic spreadsheets as preparation for the examination to attain the Microsoft Certified Application Specialist – Excel.
- Create, manage, and modify word processing documents as preparation for the examination to attain the Microsoft Certified Application Specialist – Word.
- Create, modify, and troubleshoot computer programs using Visual Basic to develop computer programming skills.
- Create effective web pages that include links, graphics, sound, tables, forms, and style sheets using common editors.
- Implement, administer, and troubleshoot computer systems that incorporate Microsoft Windows Vista as preparation for the examination to attain the Windows Vista Configuration Microsoft Certified Technology Specialist 70-620.
- Troubleshoot and repair microcomputers as preparation for the examination to attain the CompTIA A+ certification.
- Train and support microcomputer end-users to include developing and delivering training modules and developing strategies for providing on-going technical support.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$5999
Application Fee.....	30
Lab Fees.....	240
Books/Supplies .....	1875
TOTAL.....	\$8144

#### FALL SEMESTER

Course	No.	Title	Credits
BUS	106	Introduction to Business	3+
CIT	111	Intro to Comp for Tech Majors	3+
CIT	120	Internet Essentials	2+
ENGL	121**	Composition I	3+
MATH	104**	Business Mathematics	4+
		Subtotal	15

#### SPRING SEMESTER

Course	No.	Title	Credits
CIT	205*	Database Management	3+
COMM	135	Interpersonal Communication	3+
ENGL	122*	Composition II OR	
ENGL	124**	Business & Prof Communication OR	
ENGL	228*	Strategies of Business Communication	3+
OO	266*	Microsoft Word	3+
MATH	108**	Algebra for College Students OR	
MATH	130**	Precalculus Algebra OR	
MATH	150**	Math for Liberal Arts OR	
MATH	181**	Calculus	3/4+
		Subtotal	15/16

#### FALL SEMESTER

Course	No.	Title	Credits
CIT	160*	Introduction to Programming	3+
CIT	166*	Computer Operating Systems	4+
CIT	220*	Electronic Spreadsheets	3+
CIT	229*	Web Page Construction	3+
		Technical Electives	3+
		Subtotal	16

#### SPRING SEMESTER

Course	No.	Title	Credits
CIT	272*	PC Troubleshooting and Maint	4+
CIT	275*	Computer End-User Support	3+
		Technical Electives	2+
		Subtotal	14

#### TECHNICAL ELECTIVES

Course	No.	Title	Credits
CIT		Any CIT course with Advisor approval	3-4+
DRFT	156	Introduction to CAD	3+
OO	220	Preparing Resumes	1+
OO	221	Interviewing for Jobs	1+

#### TOTAL PROGRAM CREDITS – 60~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

*This program has a transfer articulation agreement with Montana State University - Northern.  
For details please see the Transfer Section of this catalog.*



## COMPUTER INFORMATION TECHNOLOGY NETWORK SUPPORT

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor:** Bruce Gottwig

The Computer Technology Program prepares individuals to assume a role in computer support with skills and responsibilities in user support, hardware and software troubleshooting, and basic system maintenance. The Network Support Degree prepares students for a career in supporting Local Area Networks (LAN) and Wide Area Networks (WAN) with a focus on the skills required to understand and manage the operation of a small and large computer network.

Upon completion of the Network Support Degree, students will be able to successfully design, implement, manage, and maintain effective network infrastructures for both home and corporate clients as an entry level network technician / system administrator.

#### **Outcomes: Graduates are prepared to:**

- Utilize TCP/IP applications to prove their understanding of networking protocols used to control modern networking infrastructures.
- Master the concepts of the theoretical OSI networking model.
- Create, maintain, and troubleshoot both wired and wireless network infrastructures and infrastructure devices.
- Employ and master the skills needed to create and maintain server based networks using both Microsoft Windows and Open source Linux server systems.
- Develop and implement a logical troubleshooting and maintenance system for Personal Computing systems.
- Prepare for networking support industry standard certifications such as: CCNA, CCNP, MCSA or MCSE, and CompTIA Network+.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$7499
Application Fee.....	30
Lab Fees.....	150
Books/Supplies.....	1875
<b>TOTAL.....</b>	<b>\$9554</b>

#### **SUMMER SEMESTER**

Course	No.	Title	Credits
CIT	111	Intro to Comp for Tech Majors	3+
CIT	125	Fund of Voice and Data Cabling	3+
CIT	166*	Computer Operating Systems	4+
		<b>Subtotal</b>	<b>10</b>

~ CIT 111 may be taken Fall semester year one.  
CIT 125 and 166 can be taken either semester year one.

#### **FALL SEMESTER**

Course	No.	Title	Credits
CIT	126*	Networking Fundamentals	3+
CIT	176*	Routers and Routing Basics	3+
CIT	210*	Network Operating Systems I	2+
CIT	211*	Network Operating Systems II	2+
CIT	272*	PC Troubleshooting & Main	4+
		<b>Subtotal</b>	<b>14</b>



#### **SPRING SEMESTER**

Course	No.	Title	Credits
CIT	120	Internet Essentials	2+
CIT	212*	Network Operating Systems III	2+
CIT	213*	Network Operating Systems IV	2+
CIT	226*	Switching Basics & Inter Routing	3+
CIT	276*	Intro to WAN Technologies	3+
CIT	283*	Fund of Wireless LAN	3+
		<b>Subtotal</b>	<b>15</b>

#### **FALL SEMESTER**

Course	No.	Title	Credits
CIT	215*	Network Operating Systems V	2+
CIT	216*	Network Operating Systems VI	2+
CIT	278*	Advanced Routing	4+
CIT	284*	Implementing Secure Converged Wide Area Network	4+
MATH	108**	Algebra for College Students <b>OR</b>	
MATH	130**	Precalculus Algebra <b>OR</b>	
MATH	150**	Math for Liberal Arts <b>OR</b>	
MATH	181**	Calculus	3/4+
		<b>Subtotal</b>	<b>15-16</b>

#### **SPRING SEMESTER**

Course	No.	Title	Credits
CIT	275*	Computer End-User Support	3+
CIT	281*	Multilayer Switching	4+
CIT	285*	Optimizing Converged Networks	4+
CIT	287*	IP Telephony	3+
ENGL	121**	Composition I	3+
		<b>Subtotal</b>	<b>17</b>

#### **TOTAL PROGRAM CREDITS – 71/72~**

~Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

# YOUR Future - ACADEMIC PROGRAMS

## COMPUTER INFORMATION TECHNOLOGY WEB DESIGN

### ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Tim Paul

The Computer Technology Program prepares individuals to assume a role in computer support with skills and responsibilities in user support, hardware and software troubleshooting, and basic system maintenance.

#### Outcomes: Graduates are prepared to:

- Write, control and troubleshoot XHTML and CSS in order to create effective and current web pages using industry standard applications.
- Investigate and implement current languages and utilities to assess their effectiveness in the development of web pages and design.
- Employ and master graphical editing and animation techniques using industry standard applications.
- Develop web sites and other forms of design.
- Discover techniques and style that may act as models for their own work.
- Collaborate in various roles typical in web and design work.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$5999
Application Fee .....	30
Lab Fees .....	150
Books/Supplies .....	1850
TOTAL .....	\$8029

#### FALL SEMESTER

Course	No.	Title	Credits
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BUS	106	Introduction to Business	3+
COMM	135	Interpersonal Communication	3+
CIT	111	Intro to Comp for Tech Majors	3+
ENGL	121**	Composition I	3+
MATH	104**	Business Mathematics	4+
		Subtotal	16

#### SPRING SEMESTER

Course	No.	Title	Credits
CIT	120	Internet Essentials	2+
CIT	205*	Database Management	3+
CIT	272*	PC Troubleshooting & Main	4+
ENGL	122*	Composition II <b>OR</b>	
ENGL	228**	Strategies of Business Communications	3+
MATH	108**	Algebra for College Students <b>OR</b>	
MATH	130**	Precalculus Algebra <b>OR</b>	
MATH	150**	Math for Liberal Arts <b>OR</b>	
MATH	181**	Calculus	3/4+
		Subtotal	15-16

#### FALL SEMESTER

Course	No.	Title	Credits
CIT	126*	Networking Basics	3+
CIT	160*	Introduction to Programming	3+
CIT	166*	Computer Operating Systems	4+
CIT	217*	Computer Graphic Design	4+
CIT	229*	Web Page Construction	3+
		Subtotal	17

#### SPRING SEMESTER

Course	No.	Title	Credits
CIT	206*	Database Management II	3+
CIT	231*	Web Page Design	3+
CIT	250*	Web Page Programming	3+
CIT	275*	Computer End-User Support	3+
CIT	280*	Desktop Publishing	3+
		Subtotal	15

#### TOTAL PROGRAM CREDITS – 63-64~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.





## COMPUTER NETWORK INFRASTRUCTURE CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Bruce Gottwig

### Outcomes: Graduates are prepared to:

- Demonstrate an entry level understanding of network infrastructure cabling.
- Install and basically configure network routers and switches.
- Pass the Cisco Certified Network Associate industry standard certification exam with at least an 80%.
- Pass the CompTIA A+ industry standard certification exam battery with at least an 80%.
- Obtain and keep an entry level computer networking professional position in the workforce.

### Estimated Resident Program Cost:

Tuition and Fees .....	\$3894
Application Fee.....	30
Lab Fees.....	140
Books/Supplies.....	800
<b>TOTAL.....</b>	<b>\$4865</b>

### FALL SEMESTER

Course	No.	Title	Credits
CIT	111	Introduction to Computers	3†
CIT	126*	Networking Fundamentals	3†
CIT	176*	Routers and Routing Basics	3†
ENGL	121**	Composition I	3†
MATH	108**	Algebra for College Students <b>OR</b>	
MATH	130**	Pre-calculus Algebra <b>OR</b>	
MATH	150 **	Math for Liberal Arts <b>OR</b>	
MATH	181**	Calculus	3/4†
		<b>Subtotal</b>	<b>15-16</b>

### SPRING SEMESTER

Course	No.	Title	Credits
CIT	125*	Fund of Voice and Data Cabling	3†
CIT	226*	Switching Basics & Int. Routing	3†
CIT	272*	PC Troubleshooting/Maintenance	4†
CIT	276*	Introduction to WAN Technologies	3†
COMM	135	Interpersonal Communication	3±
		<b>Subtotal</b>	<b>16</b>

### TOTAL PROGRAM CREDITS 31-32

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

# YOUR Future - ACADEMIC PROGRAMS

## COMPUTER SERVER ADMINISTRATION

### CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Bruce Gottwig

The Computer Server Administration program prepares individuals for employment in the computer networking field, specifically focusing on server management, maintenance, and administration. Students in this program gain hands-on experience with computer hardware, software and networks. Upon successful completion of the program, the student will have the needed skills to sit for CompTIA Network+, Linux+ and Microsoft MCSA/MCSE certifications.

#### **Outcomes: Graduates are prepared to**

- Demonstrate an advanced level understanding of Microsoft 2003 server configuration.
- Demonstrate a basic understanding network infrastructure design and configuration.
- Demonstrate a basic understanding of the Linux server operating system.
- Pass the MCSA / MCSE industry standard certification exam battery with at least an 70%.
- Obtain and keep a computer server professional position within the workforce.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$4257
Application Fee.....	30
Lab Fees.....	70
Books/Supplies .....	950
<b>TOTAL.....</b>	<b>\$5307</b>

#### **FALL SEMESTER**

Course	No.	Title	Credits
CIT	111	Introduction to Computers	3†
CIT	166*	Computer Operating Systems	4†
CIT	210*	Network Operating System 1	2†
CIT	211*	Network Operating System 2	2†
CIT	126*	Networking Fundamentals	3†
CIT	176*	Routers and Routing Basics	3†
		<b>Subtotal</b>	<b>17</b>

#### **SPRING SEMESTER**

Course	No.	Title	Credits
CIT	208*	Fundamentals of UNIX/Linux	4†
CIT	212*	Network Operating System 3	2†
CIT	213*	Network Operating System 4	2†
ENGL	121**	Composition I	3†
COMM	135	Interpersonal Communication	3†
		<b>Subtotal</b>	<b>14</b>

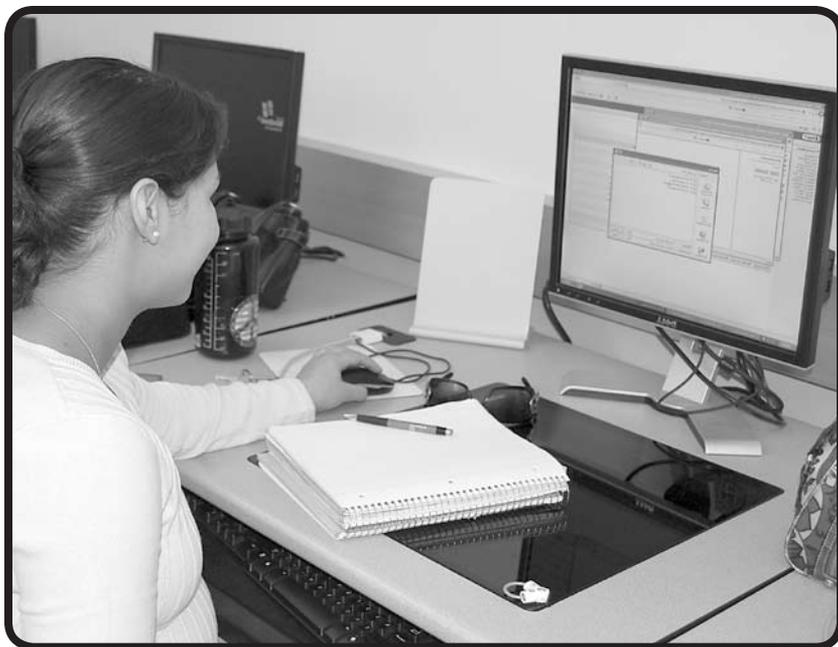
#### **SUMMER SEMESTER**

Course	No.	Title	Credits
CIT	215*	Network Operating System 5	2†
CIT	216*	Network Operating System 6	2†
MATH	108**	Algebra for College Students <b>OR</b>	
MATH	130**	Pre-calculus Algebra <b>OR</b>	
MATH	150**	Math for Liberal Arts <b>OR</b>	
MATH	181**	Calculus	3-4†
		<b>Subtotal</b>	<b>7-8</b>

#### **TOTAL PROGRAM CREDITS – 38-39~**

Note: Some of the courses are offered in a ½ semester format: CIT 210/CIT 211 are offered Fall Semester year one; and CIT 212/CIT213 are offered Spring Semester year one. It is important that students enroll in both sets of courses at the same time.

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## DENTAL ASSISTANT

### CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Robin Williams  
Carmen Perry

Dental Assistants are important members of the dental health care team and primarily help to increase the efficiency and productivity of the dental practice by assisting the dentist in delivering patient care. Other employment opportunities and/or responsibilities include dental health education, performing expanded duty dental care on patients, business practice, or working with dental insurance or dental supply companies. Because dentists employ two or three dental assistants, employment opportunities are excellent.

The Dental Assistant program will:

1. Maintain an instructional curriculum that meets the accreditation standards of the American Dental Association Council on Dental Education and of the local dental community.
2. Deliver relevant learning experiences and curriculum sequencing to assure graduates achieve adequate knowledge and skill to enable them to be employed in the field as entry level Dental Assistants.

#### Outcomes: Graduates are prepared to:

- Sit for the national certification examination administered by the Dental Assisting National Board.
- Perform entry level skill and competence in assigned chairside dental assistant duties and responsibilities (including expanded duty functions as defined by the Montana Board of Dentistry.)
- Substantiate the mastery of oral radiography theory and techniques.
- Utilize dental-specific software for the operation of a dental practice.
- Demonstrate appropriate cultural, legal, ethical, and professional values (including adherence to HIPAA standards.)
- Articulate dental language appropriate in business, clinical, and educational situations.
- Apply OSHA Infection control standards during all aspects of dental care and practice.
- Improve potential to meet program graduation requirements by participating in academic advisement and other supportive services.

The MSU – Great Falls Dental Assistant program is a one-year (11 month) limited enrollment certificate program and accepts up to 18 students each year. Applicants are advised to contact Student Central or a program advisor for further program information specific to admission requirements.

Interested students must complete an application to the program (separate from the institution application) for program acceptance. These students must have already successfully (C- or better) completed MATH 085 (Pre-algebra) and ENGL 118 (Intro to Critical Reading/Writing) **OR** their equivalents **OR** are currently at the competency level for the program-required math and English courses.

Following acceptance to the program, students complete three semesters concluding with a summer semester when the students are enrolled in clinical practice.

Students will be required to purchase uniform attire and provide own transportation (and lodging, if applicable) to and from clinical site assignments.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$4499
Application Fee.....	30
Uniforms.....	250
Lab Fees.....	270
Books/Supplies.....	1300
TOTAL.....	\$6349

The Dental Assistant program sequence is as follows:  
(The student, however, may complete any or all of the general education coursework (non-DA) prior to entry to the Dental Assistant program, ie: MATH 103 or higher, ENGL 119 or higher, and/or COMM 135 or PSY 101)

A grade of “C-” or above must be achieved in all courses to advance in the program and to graduate.

#### **FALL SEMESTER**

Course	No.	Title	Credits
DA	115	Head, Neck & Oral Anatomy	4†
DA	118	Dental Office Management	2†
DA	120	Oral Radiology/Radiography I	3†
DA	123	Chairside Theory and Practice I	4†
ENGL	119**	Intro to College Writing or higher	3-4†
Subtotal			16-17

#### **SPRING SEMESTER**

Course	No.	Title	Credits
DA	121*	Oral Radiology/Radiography II	2†
DA	124*	Chairside Theory and Practice II	4†
DA	150*	Dental Sciences/Preventive Dentistry	4†
DA	165*	Dental Specialties	3†
MATH	---**	MATH 103 or higher	3-4†
Subtotal			16-17

#### **SUMMER TERM**

Course	No.	Title	Credits
COMM	135	Interpersonal Communication <b>OR</b>	
PSY	101	General Psychology	3†
DA	190*	Clinical Practice and Seminar	7†
Subtotal			10

All required Dental Assistant program coursework must be successfully (“C-” or better) completed prior to enrollment in DA 190, with the exception of Interpersonal Communication or General Psychology.

#### **TOTAL PROGRAM CREDITS – 42-44~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



# YOUR Future - ACADEMIC PROGRAMS

## DENTAL HYGIENE

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisors:** Kim Woloszyn, Gail Staples, Linda Wing,  
Dr. Bonnie Lederman

The Dental Hygienist is a licensed professional member of the healthcare team who integrates the roles of educator, consumer advocate, practitioner, manager and researcher to support total health through the promotion of oral health and wellness. The focus of dental hygiene is on preventing and treating oral disease.

Upon receipt of the Associate of Applied Science Degree, successful completion of the National Dental Hygiene Board Examination is required. The graduate will also need to obtain a license for the state he/she wishes to practice in by successfully completing a regional practical examination (WREB). The dental hygienist must practice in accordance with the requirements of the individual state practice acts and abide by requirements to maintain licensure.

#### **Outcomes: Graduates are prepared to:**

- Formulate comprehensive oral hygiene care plans that are patient centered and based on current scientific evidence.
- Employ professional judgment and critical thinking to identify, assess, analyze, and creatively address situations in a safe and ethical manner.
- Demonstrate effective interpersonal skills through verbal and written communication.
- Demonstrate leadership skills and provide service to the community through health promotion activities and education.
- Apply the concepts of oral health prevention and promotion to improve overall wellness.
- Provide safe and competent dental care to individuals of any age.
- Demonstrate appropriate cultural, legal, ethical and professional values at all times.
- Collaborate with other healthcare professionals.
- Practice within the standards established by the profession and identify parameters of accountability.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$8999
Application Fee.....	30
Lab Fees \$125/semester.....	625
Books/Supplies/Instruments.....	4,000
TOTAL.....	\$13,654

Students will be required to purchase dental instruments, supplies, uniforms and may also be required to provide transportation to clinical sites and lodging costs depending on the clinical sites selected.

The MSU-Great Falls College of Technology's Dental Hygiene Program is a limited enrollment program, accepting 14 students each year. Interested students are urged to contact the Admissions Office and the Dental Hygiene Program Advisors for student advising specific to admission requirements and criteria for program acceptance.

#### **PREREQUISITE COURSES**

Course	No.	Title	Credits
BIO	213**	Anatomy & Physiology I/Lab	4+
BIO	214*	Anatomy & Physiology II/Lab	4+
BIO	280*	Microbiology & Communicable Diseases	4+
ENGL	121**	Composition I	3+
MATH	130**	Precalculus Algebra <b>OR</b>	
MATH	150**	Math for Liberal Arts <b>OR</b>	
MATH	161**	Algebra w/ Science Applications	3-4+
CHM	111*	Inorganic Chemistry/Lab <b>OR</b>	
CHM	131&132*	Gen Chemistry I & II with Labs	4-8+

22/27

**All prerequisite courses and dental hygiene program application must be completed by May 31st of the year prior to applying for enrollment into program.**

A grade of "C-" or above must be achieved in all courses to advance in the program and to graduate.

#### **PROGRAM COURSE REQUIREMENTS**

##### **FALL SEMESTER**

Course	No.	Title	Credits
DH	101	Intro to Dental Hyg/Preclinic	2+
DH	102	Intro to Dental Hyg/Preclinic Lab	2+
DH	111	Infect Control & Disease Prevention	2+
DH	118	Oral Anatomy for Hygienists	3+
DH	122	Oral Radiology /Lab	3+
		Subtotal	12

##### **SPRING SEMESTER**

Course	No.	Title	Credits
AH	140*	Pharmacology	2+
DH	150	Clinical Dent Hyg Theory I	2+
DH	151	Clinical Dent Hyg Practice I	4+
DH	160	Periodontology I	3+
DH	165	Oral Histology & Embryology	2+
DH	123*	Radiographic Interpretation	1+
DH	240	Local Anesthesia/ Nitrous Oxide Theory & Lab	2+
		Subtotal	16

##### **SUMMER SEMESTER**

Course	No.	Title	Credits
DH	220	Dental Nutrition Health	3+
DH	201	Periodontology II	2+
DH	210	Clinical Dent Hyg Theory II	2+
DH	211	Clinical Dent Hyg Practice II	4+
		Subtotal	11

##### **FALL SEMESTER**

Course	No.	Title	Credits
COMM	130	Public Speaking <b>OR</b>	
COMM	135	Interpersonal Communication	3+
DH	130	Dental Materials	2+
DH	215	General and Oral Pathology	3+
DH	241	Gerontology & Special Needs Patients	2+
DH	250	Clinical Dent Hyg Theory III	1+
DH	251	Clinical Dent Hyg Practice III	5+
		Subtotal	16

##### **SPRING SEMESTER**

Course	No.	Title	Credits
DH	230	Community Dental Health and Education	2+
DH	235	Professional Issues & Ethics in Dental Practice	2+
DH	280	Clinical Dent Hyg Theory IV	1+
DH	281	Clinical Dent Hyg Practice IV	5+
PSY	101	General Psychology <b>OR</b>	
PSY	109	Lifespan Development	3+
SOC	111	Introduction to Sociology	3+
		Subtotal	16

#### **TOTAL PROGRAM CREDITS – 93 - 98~**

~ Many students need preliminary math, English and biology courses before enrolling in the program prerequisite coursework. These courses may increase the total number of program credits. Students should review their math and English placement scores before planning out their full program schedules.

## DESIGN DRAFTING TECHNOLOGY

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor:** Kirk Mattingly

In the Design Drafting Technology program students acquire the skills necessary for entry-level drafting jobs in the design/ drafting industry.

#### Outcomes: Graduates are prepared to:

- Create detail and assembly drawings to ANSI standards on the drawing board.
- Create detail and assembly drawings to ANSI standards using the latest versions; of AutoCAD and Mechanical Desktop.
- Create two-dimensional layouts from three-dimensional solid models using AutoCAD and Mechanical Desktop.
- Create a complete set of residential plans using AutoCAD.
- Create a site plan including topography using Land Development Desktop.
- Create thematic maps from GIS data.
- Solve graphical problems using the principles of descriptive geometry.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$5999
Application Fee.....	30
Books/Supplies.....	1700
TOTAL.....	\$7729

#### **FALL SEMESTER**

Course	No.	Title	Credits
CET	173	Arch Construction & Materials	3
COMM	135	Interpersonal Communication	3
CIT	110	Intro to Computers	3
DRFT	131	Technical Graphics I	4
MATH	130**	Precalculus Algebra	4
		Subtotal	17

#### **SPRING SEMESTER**

Course	No.	Title	Credits
DRFT	132*	Descriptive Geometry	3
DRFT	156	Introduction to CAD	3
DRFT	---	Drafting Elective	3
EET	110	Electronics Survey	3
MATH	131**	Precalculus Trigonometry	3
		Subtotal	15

#### **FALL SEMESTER**

Course	No.	Title	Credits
DRFT	201*	Residential Drafting	3
DRFT	256*	3D CAD	3
ENGL	121**	Composition I	3
MFMT	205	Manufacturing Processes	3
PHYS	130	Fund of Physical Science with Lab	4
		Subtotal	16

#### **SPRING SEMESTER**

Course	No.	Title	Credits
CIT	205*	Database Management I	3
DRFT	205*	Machine Drafting	3
DRFT	244*	Topographical Mapping & GIS Applications	3
DRFT	---	Drafting Electives	6
		Subtotal	15

#### **SUGGESTED ELECTIVES – 9 CREDITS REQUIRED**

Course	No.	Title	Credits
DRFT	242	Blueprint Reading & Materials	3
DRFT	246	Managing the Construction Process	3

#### **TOTAL PROGRAM CREDITS – 63~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

*This program has a transfer articulation agreement with Montana State University - Northern in Havre, MT. For details please see the Transfer Section of this catalog.*



# YOUR Future - ACADEMIC PROGRAMS

## EMERGENCY SERVICES EMERGENCY MEDICAL TECHNICIAN PARAMEDIC (EMT-P)

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor:** Larry Myers

Emergency Medical Services (EMS) personnel play a crucial role in providing appropriate care and transportation in both emergency and non-emergency settings. MSU-Great Falls offers a one semester EMT-Basic course and a one semester EMT-I99 course which, if completed successfully, prepares the student to sit for the National Registry Certification Examination to gain licensure. The College also offers the EMT-Paramedic program, which is the A.A.S. degree: students must hold current licensure as EMT-B or EMT-I. All programs provide students with skills and knowledge needed to perform as entry-level practitioners at their respective level.

Upon completion of each EMT course, students will be prepared to begin a successful career in emergency care and transportation in emergency and non-emergency settings. Students are prepared to sit for the National Registry Certification Examination to gain licensure.

#### **Outcomes: Graduates are prepared to:**

- Provide appropriate care and transportation in both emergency and non-emergency settings.
- Effectively communicate with other medical personnel in oral, written or electronic form.
- Follow guidelines in maintaining confidentiality of patient information.
- Demonstrate correct patient assessment and appropriate intervention and care in medical emergencies including auto accidents, heart attacks, stroke, poisoning, childbirth, substance abuse, and others.
- Demonstrate proficiency in emergency medical skills such as CPR, airway control, oxygenation, wound care, splinting, and cervical spine immobilization.
- Safely and correctly use medical equipment and technologies in patient treatment.

In addition to the above, upon completion of the EMT-I99 course or the EMT-Paramedic AAS degree program, students will be prepared to begin a successful career in emergency care and transportation in emergency and non-emergency settings.

#### **Outcomes: Graduates are prepared to:**

- Demonstrate proficiency in utilizing pharmacological interventions as needed for appropriate patient care.
- Practice advanced cardiac life support including ECG, and interpretation and pharmacology, pediatric advanced life support, and pre-hospital trauma life support.

### ADMISSION REQUIREMENTS

- 18 years of age prior to entering national certification process.
- Completion of BIO 213\*\* (for acceptance into Paramedic Program)
- Current certification in CPR according to the standards of the AHA Healthcare Provider or its equivalent.
- Proof of immunization against measles and rubella, diphtheria/tetanus, and a negative tuberculin test or approved treatment.

- Hepatitis B immunization series is strongly recommended. TB test required prior to clinical experience.
- Current National Registry Certification at the EMT-Basic AND/OR EMT-Intermediate Level and 1 year related experience prior to sitting for the National Registry EMT-Paramedic Certification Examination.
- Program policies and a clinical contract will be signed by the student prior to clinical rotations.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$5999
Application Fee.....	30
Lab Fees.....	765
Books/Supplies.....	1650
TOTAL.....	\$8444

### **EMS SUGGESTED COURSE OF STUDY - TRACK A**

#### **FALL SEMESTER**

Course	No.	Title	Credits
AH	145	Intro to Med Terms	1
BIO	213**	Anatomy & Physiology I/Lab	4
ENGL	119**	Introduction to College Writing	4
EMS	137	EMT - Basic	6
MATH	161**	College Algebra with Science Applications	3
		Subtotal	18

#### **SPRING SEMESTER**

Course	No.	Title	Credits
AH	140	Pharmacology	2
BIO	214*	Anatomy & Physiology II/Lab	4
COMM	135	Interpersonal Communication	3
		Electives	7
		Subtotal	16

#### **FALL SEMESTER**

Course	No.	Title	Credits
EMS	102*	Fundamentals of Adv Care	3
EMS	105*	Paramedic I	3
EMS	110*	Paramedic I/II Skills Lab	2
EMS	115*	Paramedic II	3
EMS	120*	Paramedic III/IV Clinical	3
EMS	145*	ACLS Preparation	1
		Subtotal	15

#### **SPRING SEMESTER**

Course	No.	Title	Credits
EMS	146	PALS Preparation	1
EMS	148	Pre-Hospital Trauma Life Sup	1
EMS	205*	Paramedic III	3
EMS	210*	Paramedic III/IV Skills Lab	2
EMS	220*	Paramedic III/IV Clinical/Field	4
EMS	225*	Paramedic IV	3
		Subtotal	14

*Paramedic Field Internship Phase II, III, IV - 285+ hours*

#### **TOTAL PROGRAM CREDITS – 63~**

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## EMS SUGGESTED COURSE OF STUDY - TRACK A (CONT)

### SUGGESTED ELECTIVES

Course	No.	Title	Credits
AH	101	Healthcare Delivery in the US	2
AH	108*	Disease Concepts	2
AH	150	Fitness for Life	2
BIO	107**	Fundamentals of Human Biology	4
CIT	110	Introduction to Computers	3
BIO	280*	Microbiology & Communicable Diseases	4
BUS	106	Intro to Business	3
CHM	111*	Inorganic Chemistry/Lab	4
CHM	112*	Organic and Biochemistry/Lab	4
HI	156*	Legal & Regulatory Aspects of Healthcare	3
PHIL	238	Medical Ethics	3
PHYS	130	Fund of Physical Science with Lab	4
PSY	101	General Psychology	3
PSY	109	Lifespan Development	3
SOC	111	Introduction to Sociology	3
<i>Below taken as a unit in one semester</i>			
EMS	140	Intermediate I	4
EMS	155	Intermediate II	3
EMS	217	Intermediate III	4
EMS	222	Intermediate I Clinical	1
EMS	227	Intermediate II Clinical	2

## EMS SUGGESTED COURSE OF STUDY - TRACK B

### FALL SEMESTER

Course	No.	Title	Credits
AH	145	Intro to Med Terms	1
BIO	213**	Anatomy & Physiology I/Lab	4
ENGL	119**	Introduction to College Writing	4
EMS	137	EMT - Basic	6
MATH	161**	College Algebra with Science Applications	3
Subtotal			18

### SPRING SEMESTER

Course	No.	Title	Credits
BIO	214*	Anatomy & Physiology II/Lab	4
EMS	140*	Intermediate I	4
EMS	155*	Intermediate II	3
EMS	217*	Intermediate III	4
EMS	222*	Intermediate I Clinical	1
EMS	227*	Intermediate II Clinical	2
Subtotal			18

### FALL SEMESTER

Course	No.	Title	Credits
COMM	135	Interpersonal Communication	3
EMS	102*	Fundamentals of Adv Care	3
EMS	105*	Paramedic I	3
EMS	110*	Paramedic I/II Skills Lab	2
EMS	115*	Paramedic II	3
EMS	120*	Paramedic I/II Clinical	3
EMS	145*	ACLS Preparation	1
Subtotal			18

### SPRING SEMESTER

Course	No.	Title	Credits
AH	140	Pharmacology	2
EMS	146	PALS Preparation	1
EMS	148	Pre-Hospital Trauma Life Sup	1
EMS	205*	Paramedic III	3
EMS	210*	Paramedic III/IV Skills Lab	2
EMS	220*	Paramedic III/IV Clinical/Field	4
EMS	225*	Paramedic IV	3
Subtotal			16

*Paramedic Field Internship Phase II, III, IV - 285+ hours*

### TOTAL PROGRAM CREDITS – 70~

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.





## EMT-INTERMEDIATE 99 CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Larry Myers

Upon completion of the EMT-Intermediate 99 and the EMT-Basic program, students will be prepared to begin a successful career in emergency care and transportation in emergency and non-emergency settings. Students are prepared to sit for the National Registry Certification Examination to gain licensure.

### Graduates will be prepared to:

- Understand human anatomy and physiology with emphasis on the respiratory, cardiovascular, endocrine and musculoskeletal systems.
- Understand pharmacology, pathophysiology and medical terminology.
- Practice more advanced emergency medical skills that include utilization of cardiac monitors and defibrillators, provision of fluid resuscitation through intravenous access and limited pharmacological interventions.
- Demonstrate proficiency in emergency medical skills such as CPR, airway control, oxygenation, wound care, splinting, and cervical spine immobilization.

Upon completion of the EMT-I 99 program, students will be prepared to begin a successful career in emergency care and transportation in emergency and non-emergency settings. Students are prepared to sit for the National Registry Certification Examination to gain licensure as EMT – Intermediate 99.

### Estimated Resident Program Cost:

Tuition and Fees .....	\$2999
Application Fee.....	30
Lab Fees.....	60
Books/Supplies.....	650
TOTAL.....	\$3739

### SUMMER SEMESTER

Students could enter summer semester by taking EMT 137 Basic and/or other courses, completing in three semesters. Students could also enter fall semester as below, but finish the following summer, thereby lowering number of credits per semester. Student actually finishes ambulance internship for 199 courses at end of June.

### FALL SEMESTER

Course	No.	Title	Credits
AH	140	Pharmacology	2
AH	145	Introduction to Medical Terminology	1
ENGL	119**	Introduction to College Writing	4
COMM	135	Interpersonal Communication	3
EMS	137	EMT-Basic	6†
		Subtotal	16

### SPRING SEMESTER

Course No.	Title	Credits
MATH 161**	College Algebra w/ Science Applications	3
EMS 140	EMT - Intermediate I	4†
EMS 155	EMT - Intermediate II	3†
EMS 217	EMT - Intermediate III	4†
EMS 222	EMT - Intermediate I Clinical	1†
EMS 227	EMT - Intermediate II Clinical	2†
	Subtotal	17

### TOTAL PROGRAM CREDITS – 33~

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## EMERGENCY SERVICES

### FIRE AND RESCUE TECHNOLOGY

#### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor:** John Culbertson

Today's firefighters not only respond to fire and medical emergencies but also participate in disaster response planning, hazardous material spill mitigation, enforcement of fire codes and standards, as well as delivery of safety, fire, and accident prevention programs. The work of the contemporary firefighter is multi-functional and requires a high level of expertise in relevant technical areas as well as proficiencies in written and oral communications, leadership, planning, and the ability to deal with a broad range of individuals and situations.

This degree program combines technical fire and rescue training with general education courses to fulfill Associate of Applied Science Degree requirements. It also incorporates the opportunity to transfer credits toward a four-year degree in Fire Science/Administration.

#### Outcomes: Graduates are prepared to:

- Demonstrate the skills required at the Fire Fighter 1 & 2, Hazmat Technician, Officer 1, and EMT-Basic levels of competency (this results in five professional certifications).
- Recognize and respond effectively to fire code and fire life safety issues.
- Use appropriate methods for fire suppression and extinguishment in a variety of settings.
- Detect arson.
- Provide basic emergency medical services.
- Assume supervisory responsibilities for a fire crew.
- Communicate effectively both orally and in writing.

The Fire and Rescue Technology Option is offered as a cooperative endeavor between Montana State University - Great Falls College of Technology and Montana State University Fire Services Training School—Great Falls.

The availability of on-line classes through MSU-Great Falls COT will allow firefighters to complete general education degree requirements without having to relocate to Great Falls.

Required technical courses are offered at locations throughout the state, mostly on weekends. Please visit the Fire Services Training School's website at [www.montana.edu/wwwfire](http://www.montana.edu/wwwfire) for the latest schedule of technical courses and costs.

Program applicants should forward their requests for transfer of credit for general and technical education to the Registrar's Office at the College. Requests for transfer of credit should include official copies of transcripts. Technical credits that are not on a technical transcript need to send documents to the Registrar's Office at the College so the requests for transfer of technical credits can be reviewed.

Only the credits taken from MSU – Great Falls COT are eligible for Financial Aid. FRS prefix classes are not eligible.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$2999
Application Fee.....	30
Lab Fees.....	180
Fire Training School .....	up to 6000
Books/Supplies .....	<u>1050</u>
TOTAL.....	\$10259

#### **GENERAL EDUCATION REQUIREMENTS**

Course	No.	Title	Credits
COMM	135	Interpersonal Communication	3
ENGL	124**	Business & Professional Comm	3
MATH	---**	103 or higher	3-4
PHYS	130	Fund of Physical Science with Lab	4
PSY	101	General Psychology	<u>3</u>
		Subtotal	16-17

#### **TECHNICAL EDUCATION REQUIREMENTS**

Course	No.	Title	Credits
EMS	137	EMT Basic	6
FRS	101	Firefighter I	5
FRS	102*	Firefighter II	5
FRS	112*	Fire Inspection & Investigation	3
FRS	241	Fire Department Internship	3
FRS	245*	Fire Service Training & Safety Education	2
FRS	250*	Building Construction	2
FRS	265*	Incident Management & Safety	3
FRS	270*	Tactical Operations and Company Management	5
FRS	285*	Hazardous Materials	<u>5</u>
		Subtotal	39

#### **TECHNICAL ELECTIVES – 6 CREDITS REQUIRED**

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3
FRS	107	Aircraft Fire & Rescue	3
FRS	291	Hydraulics & Water Supplies	3
FRS	290	Wildland Fire Protection	3

*S-215: Fire Operations in the Urban Interface*

*S-290: Intermediate Fire Behavior*

*S-390: Fire Suppression Tactics*

#### **TOTAL PROGRAM CREDITS – 62-63~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## FUNDAMENTALS OF BUSINESS CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Marilyn Besich  
Teri Dwyer

The Fundamentals of Business program is designed for persons seeking employment in entry-level business positions assisting small business enterprises.

### Outcomes: Graduates are prepared to:

- Maintain accounting records;
- Meet the public;
- Manage office functions; and
- Market the business.

The Fundamentals of Business program also offers individuals needing technical business assistance courses to upgrade knowledge and skills.

### Estimated Resident Program Cost:

Tuition and Fees .....	\$2999
Application Fee .....	30
Books/Supplies .....	1300
<b>TOTAL.....</b>	<b>\$4329</b>

### FIRST SEMESTER

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3†
BUS	106	Introduction to Business	3†
COMM	135	Interpersonal Communication	3†
CIT	110	Introduction to Computers	3†
ENGL	121**	Composition I	3†
MATH	104**	Business Mathematics	4†
		Subtotal	19

### SECOND SEMESTER

Course	No.	Title	Credits
ACCT	102*	Accounting Procedures II	3†
BUS	230*	Management	3†
BUS	235*	Marketing	3†
OO	107	Keyboarding Basics	3†
OO	173*	Computer Calculators	1†
		Subtotal	13

### TOTAL PROGRAM CREDITS – 32~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## HEALTH INFORMATION CODING SPECIALIST

### CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Lynn Ward

**NOTE:** This program is under review. Please contact the Program Director at [lynn.ward@msugf.edu](mailto:lynn.ward@msugf.edu) for more information.

This program is offered completely on-line.

Health information coding is the transformation of verbal descriptions of diseases, injuries and procedures into alphanumeric designations used for data retrieval, analysis, and claims processing.

Upon completion of the Certificate in Health Information Coding Specialist, students will be prepared to begin a successful career as a health information coding specialist. Students are prepared to sit for the National Certified Coding Associate exam administered through AHIMA. [www.ahima.org](http://www.ahima.org)

#### **Outcomes: Graduates are prepared to:**

- Analyze health records and assign appropriate codes according to national and international guidelines.
- Research and rely on knowledge in correct medical terminology, anatomy and physiology, and disease processes to determine the correct codes and sequences.
- Use computer applications and software specific to the coding environment.
- Maintain confidentiality of health information and adhere to regulations pertaining to privacy laws and guidelines.
- Professionally interact in the healthcare environment with healthcare providers, patient/clients, and the public.

The Health Information Coding Specialist Certificate program is approved through AHIMA and the Assembly on Education.

Students must complete all prerequisite coursework and meet for advisement with the HICS program director (via phone) before acceptance into the program.

A grade of "C-" or above must be achieved in all courses to advance in the program and graduate.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$4499
Application Fee .....	30
Lab Fees .....	70
Books/Supplies .....	1850
<b>TOTAL.....</b>	<b>\$6449</b>

**NOTE:** Curriculum is based on a full time schedule.

#### **REQUIRED SKILL**

CIT 110 Introduction to Computers, transfer equivalent, or Challenge exam

#### **FALL SEMESTER - HEALTH CARE CORE**

Course	No.	Title	Credits
AH	101	Healthcare Delivery in the US	2+
AH	185	Basic Medical Terminology	3+
AH	194	Basic Pharmaceutical	1+
BIO	127	Anatomy & Physiology I for non-clinical majors	4+
MATH	----**	103 or Higher	4+
COMM	135	Interpersonal Comm <b>OR</b>	
PSY	101	General Psychology <b>OR</b>	
SOC	111	Introduction to Sociology	3+
		Subtotal	17

#### **SPRING SEMESTER**

Course	No.	Title	Credits
AH	201*	Medical Science	3+
ENGL	124**	Business and Professional Comm	3+
HI	132*	Health Data Content & Structure	3+
HI	236*	ICD Coding	3+
HI	237*	CPT Coding	3+
		Subtotal	15

#### **SUMMER SEMESTER**

Course	No.	Title	Credits
OO	111*	Fund of Health Insurance	4+
HI	256*	Intermediate ICD Coding	3+
HI	257*	Intermediate CPT Coding	3+
HI	270*	Professional Practice Experience	2+
		Subtotal	12

#### **TOTAL PROGRAM CREDITS – 44~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



# YOUR Future - ACADEMIC PROGRAMS



## HEALTH INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor: Lynn Ward**

This program is offered completely on-line.

The Health Information Technology program is designed to prepare individuals to organize and evaluate health records for completeness and accuracy.

Upon completion of the AAS degree in Health Information Technology, students will be prepared to begin a successful career as a health information technologist. Students are prepared to sit for the National Registered Health Information Technologist exam administered by AHIMA. [www.ahima.org](http://www.ahima.org)

### **Outcomes: Graduates are prepared to:**

- Use computer applications and software in maintaining health information in health records.
- Research and rely on knowledge in medical terminology, anatomy and physiology, pharmacology, and disease processes.
- Identify and apply accurate diagnostic and procedural codes for reimbursement.
- Exhibit professional communication skills in oral, written, and electronic formats.
- Maintain confidentiality of health information and adhere to regulations pertaining to privacy laws and guidelines.
- Interact professionally in the healthcare environment with healthcare providers, patients/clients and the public.

The Health Information Technology program is accredited by the Commission on the Accreditation for Health Informatics and Information Management (CAHIIM).

A grade of "C-" or above must be achieved in all courses to advance in the program and to graduate. Students may enter the program upon completion of all prerequisite coursework and advisement meeting with the HIT program director (via phone).

### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$7499
Application Fee.....	30
Lab Fees.....	70
Books/Supplies.....	2000
TOTAL.....	\$9599

**NOTE:** Curriculum is based on a full time schedule.

### **FALL SEMESTER**

Course	No.	Title	Credits
AH	101	Healthcare Delivery in the US	2+
AH	185	Basic Medical Terminology	3+
BIO	127	Anatomy & Physiology I for non-clinical majors	4+
CIT	110	Introduction to Computers	3+
MATH	103**	Introductory Algebra OR	
MATH	104**	Business Mathematics	4+
		Subtotal	16

### **SPRING SEMESTER**

Course	No.	Title	Credits
AH	194	Basic Pharmaceuticals	1+
AH	201*	Medical Science	3+
BIO	128*	Anatomy & Physiology II for non-clinical majors	4+
HI	156*	Legal and Regulatory Aspects of Healthcare	3+
ENGL	124**	Business and Professional Comm	3+
PSY	101	General Psychology <b>OR</b>	
SOC	111	Introduction to Sociology <b>OR</b>	
COMM	135	Interpersonal Communication	3+
		Subtotal	17

### **SUMMER SEMESTER**

Course	No.	Title	Credits
HI	132*	Health Data Content and Structure	3+
HI	210*	Healthcare Statistics	2+
HI	240	Clinical Quality Assessment	3+
		Subtotal	8

### **FALL SEMESTER**

Course	No.	Title	Credits
HI	225*	Health Information Management	3+
HI	236*	ICD Coding	3+
HI	245*	Simulated Lab - Practicum Preparation	2+
HI	295*	Overview of Health Informatics Systems	4+
OO	111*	Fundamentals of Health Insurance	4+
		Subtotal	16

### **SPRING SEMESTER**

Course	No.	Title	Credits
CIT	205*	Database Management	3+
HI	237*	CPT Coding	3+
HI	256*	Intermediate ICD Coding	3+
HI	270*	Professional Practice Experience	2+
HI	292*	Topics in HIT	3+
		Subtotal	14

### **TOTAL PROGRAM CREDITS – 71~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## INTERIOR DESIGN

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor:** Julie Myers in Great Falls  
Janet Heiss-Arms Interim Advisor in Bozeman

This program is offered both at MSU - Great Falls and the College of Technology in Bozeman

The Interior Design program has been developed to prepare students with a wide variety of skills and competencies for entry into various areas of the design field, ranging from residential to commercial design. MSU - Great Falls is a National Kitchen and Bath Association (NKBA) Accredited School. Students in the Great Falls program may choose to complete 70 additional internship hours to earn a certification in the National Kitchen and Bath Association.

#### Outcomes: Graduates are prepared to:

- Understand the theory and history of design and apply design principles and elements to their projects.
- Communicate in the language of interior design using listening, verbal, and written skills to interact with clients.
- Communicate graphically according to current architectural and NKBA standards using both hand-drafting and AutoCAD techniques.
- Demonstrate research abilities and critical thinking in space planning, selection of finish materials, and application of codes for residential and commercial projects.
- Increase their body of knowledge in a wide variety of areas including construction and finish materials, color and lighting technologies, NKBA guidelines, residential and commercial codes, sustainability, and professional practice.
- Employ creative skills to create presentations of their projects using hand- and AutoCAD drafting and rendering and professional sample boards and finish schedules.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$5999
Application Fee .....	30
Lab Fee .....	10
Books/Supplies .....	1800
<b>TOTAL .....</b>	<b>\$7839</b>

Students are strongly advised to enter the program with good keyboarding skills.

#### FALL SEMESTER

Course	No.	Title	Credits
DE	161	Introduction to Design	3†
DE	162	Interior Design Graphics	3†
DE	164	Historic Interiors	3†
DE	166	Textiles & Interior Finishes	3†
CET	173	Architectural Construction and Materials	3†
		<b>Subtotal</b>	<b>15</b>

#### SPRING SEMESTER

Course	No.	Title	Credits
DE	163*	Presentation Drawing	3†
DE	165*	Contemporary Interiors	3†
DE	168*	Space Planning	3†
DE	264*	Light, Color, Lighting Systems	3†
DRFT	156	Introduction to CAD	3†
ENGL	121**	English Composition I	3
		<b>Subtotal</b>	<b>18</b>

#### SUMMER SEMESTER

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3
DE	261*	Field Study	3†
		<b>Subtotal</b>	<b>6</b>

#### FALL SEMESTER

Course	No.	Title	Credits
COMM	135	Interpersonal Communication	3
DE	262*	Studio I	4†
DE	267*	Architectural CAD	3†
DE	270*	Kitchen and Bath I	3†
		<b>Subtotal</b>	<b>13</b>

#### SPRING SEMESTER

Course	No.	Title	Credits
DE	263*	Studio II	4†
DE	265*	Professional Practices	3†
MATH	104**	Business Mathematics	4
		Electives	6
		<b>Subtotal</b>	<b>17</b>

#### SUGGESTED ELECTIVES (6 CREDITS REQUIRED)

Course	No.	Title	Credits
DE	271*	Kitchen and Bath II	3
ACCT	101	Accounting Procedures I	3
ART	101	Intro to Visual Arts	3
ART	140	Drawing I	3
BUS	106	Introduction to Business	3
BUS	220*	Sales	3
ENGL	124**	Business & Professional Comm	3
CIT	280*	Desktop Publishing	3
DRFT	256*	3-D CAD	3
PSY	101	General Psychology	3
SOC	111	Introduction to Sociology	3

#### TOTAL PROGRAM CREDITS - 69~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.





## MEDICAL ASSISTANT ASSOCIATE OF APPLIED SCIENCE DEGREE

**Interim Advisor: Deborah Newton**

Medical Assistants are specifically trained to work in ambulatory settings, such as physicians' offices, clinics, and surgical centers. These multiskilled allied health personnel can function in both administrative and clinical areas. The Program Director is currently working on program accreditation through the American Association of Medical Assistants (AAMA). Upon graduation from an accredited program, students are eligible to sit for the certifying examination through the AAMA.

### Outcomes: Graduates are prepared to:

- Perform administrative duties including insurance billing, bookkeeping, and scheduling appointments and procedures.
- Collect and prepare laboratory specimens and perform basic laboratory tests.
- Perform diagnostic tests, including respiratory function tests and electrocardiography.
- Assist in patient care: screen patients, take vital signs, and assist with office procedures.
- Administer medications applying pharmacology principles; maintain medical and immunization records.
- Respond to and initiate written communications in a professional manner.
- Follow legal guidelines in maintaining documentation and patient records.
- Utilize computer software appropriately for various office functions.
- Understand and apply HIPPA guidelines in the office setting.

### Estimated Resident Program Cost:

Tuition and Fees .....	\$6773
Application Fee.....	30
Lab Fee .....	135
Books/Supplies .....	<u>1975</u>
TOTAL.....	\$8913

### **PREREQUISITE SKILLS:**

Students wishing to enter the Medical Assistant program are strongly advised to be proficient in keyboarding and typing.

Completion of the Health Science Orientation is required.

A grade of "C-" or above must be achieved in all courses to advance and graduate from the program.

### **FALL SEMESTER**

Course	No.	Title	Credits
ACCT	101	Accounting Procedures	3†
AH	185	Basic Medical Terminology	3†
COMM	135	Interpersonal Communication	3†
CIT	110	Introduction to Computers	3†
ENGL	124**	Business and Professional Communication	3†
		Subtotal	15

### **SPRING SEMESTER**

Course	No.	Title	Credits
BIO	213**	Anatomy & Physiology I/Lab	4†
HI	132*	Health Data Content and Structure	3†
HI	156	Legal and Regulatory Aspects of Healthcare	3†
MATH	161**	College Algebra with Science Applications	3†
AH	140*	Pharmacology	2†
		Subtotal	15

### **FALL SEMESTER**

Course	No.	Title	Credits
BIO	214*	Anatomy & Physiology II/Lab	4†
MO	138*	Clinical Procedures I	3†
OO	266*	Microsoft Word 2007	3†
OO	111*	Fund of Health Insurance	4†
PSY	101	General Psychology	3†
		Subtotal	17

### **SPRING SEMESTER**

Course	No.	Title	Credits
OO	255*	Medical Transcription I	3†
HI	236*	ICD Coding	3†
HI	237*	CPT Coding	3†
MO	238*	Clinical Procedures II	3†
OO	241*	Medical Office Management	2†
AH	201*	Medical Science	3†
		Subtotal	17

### **SUMMER SEMESTER**

Course	No.	Title	Credits
MO	241*	Clinical Review	1†
MO	242*	Internship	4†
AH	120	IV Therapy	1†
		Subtotal	6

### **TOTAL PROGRAM CREDITS – 70~**

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## MEDICAL BILLING SPECIALIST CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Deborah Newton

This program is offered completely on-line.

The Medical Billing Specialist works in a variety of settings including medical management organizations, physician offices, hospitals, clinics, group practices, billing companies, and education. Students in this Certificate program are trained as entry-level billing specialists.

### **Outcomes: Graduates are prepared to:**

- Abstract information from patient records for reimbursement purposes;
- Use current ICD and CPT coding appropriately;
- Complete “clean” claims, CMS/UB-92, for private insurances and government programs such as TRICARE, Medicare, Medicaid, and Worker’s Compensation;
- Analyze explanations for benefits (EOBs) and Remittance Advice (RA) forms and post to patient accounts;
- Amend incorrect claims, appeal claims that did not pay correctly, and trace outstanding claims;
- Understand and work within HIPPA guidelines for medical facilities; and
- Interact and communicate with other healthcare workers in a professional manner, following medicolegal and ethical standards.

A grade of “C-” or above must be achieved in all courses to advance in the program.

### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$4499
Application Fee.....	30
Lab Fees.....	35
Books/Supplies .....	<u>1700</u>
TOTAL.....	\$6264

Students wishing to enter the Medical Billing Specialist program are strongly advised to be proficient in keyboarding and typing.

A grade of “C-” or above must be achieved in all courses to advance and graduate from the program.

### **FALL SEMESTER**

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3†
BIO	127	Anatomy and Physiology I for non-clinical major	4†
CIT	110	Introduction to Computers	3†
HI	132*	Health Data Content and Structure	3†
OO	111*	Fund of Health Insurance	4†
		Subtotal	17

### **SPRING SEMESTER**

Course	No.	Title	Credits
AH	201*	Medical Science	3†
HI	156*	Legal & Regulatory Aspects of Healthcare	3†
HI	236*	ICD Coding	3†
HI	237*	CPT Coding	3†
MATH	----**	103 or Higher	4†
OO	112*	Adv Health Insurance Tech	3†
		Subtotal	19

### **SUMMER SEMESTER**

Course	No.	Title	Credits
ENGL	124**	Business and Professional Comm	3†
HI	270*	Professional Practice Experience	2†
PSY	101	General Psychology <b>OR</b>	
SOC	111	Introduction to Sociology	3†
		Subtotal	8

### **TOTAL PROGRAM CREDITS – 44~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



# YOUR Future - ACADEMIC PROGRAMS

## MEDICAL BILLING AND CODING SPECIALIST

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisors:** Lynn Ward  
Deborah Newton

This program is offered completely on-line.

Health information coding is the transformation of verbal descriptions of diseases, injuries, and procedures into alphanumeric designations used for data retrieval, analysis and claims processing. The billing/coding specialist works in a variety of settings including medical management organizations, physician offices, hospitals, clinics, group practices, billing companies, and education. Students in this program are trained as entry-level billing/coding specialists.

Upon completion of the Billing/Coding program, students will be prepared to begin successful careers as reimbursement specialists in a variety of healthcare settings. In addition, students are prepared to sit for the National Certified Coding Associate Exam.

#### **Outcomes: Graduates are prepared to:**

- Abstract information from patient records for reimbursement purposes.
- Research and rely on knowledge of correct medical terminology, anatomy and physiology, and disease processes to assign appropriate codes according to national and international guidelines.
- Complete clean claims for private and government insurances.
- Analyze Explanations of Benefits and Remittance Advice forms and take appropriate action.
- Use computer applications and software specific to the billing/coding environment.
- Maintain confidentiality of health information and adhere to regulations pertaining to privacy laws and guidelines.
- Professionally interact in the healthcare environment with healthcare providers, patients/clients and the public.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$6773
Application Fee .....	30
Books/Supplies .....	1690
TOTAL.....	\$8493

Students wishing to enter the Medical Billing Specialist program are strongly advised to be proficient in keyboarding and typing.

A grade of "C-" or above must be achieved in all courses to advance and graduate from the program.

#### **FALL SEMESTER**

Course	No.	Title	Credits
AH	101	Healthcare Delivery	3†
AH	185	Basic Medical Terminology	3†
BIO	127	Anatomy and Physiology I for non-clinical major	4†
CIT	110	Introduction to Computers	3†
MATH	---**	103 or Higher	4†
		Subtotal	16

#### **SPRING SEMESTER**

Course	No.	Title	Credits
AH	194	Basic Pharmaceuticals	1†
AH	201*	Medical Science	3†
BIO	128*	Anatomy and Physiology II for non-clinical major	4†
HI	236*	ICD Coding	3†
HI	237*	CPT Coding	3†
		Subtotal	14

#### **SUMMER SEMESTER**

Course	No.	Title	Credits
HI	256*	Intermediate ICD	3†
HI	257*	Intermediate CPT	3†
		Subtotal	6

#### **FALL SEMESTER**

Course	No.	Title	Credits
ENGL	124**	Business and Professional Comm	3†
HI	132*	Health Data Content and Structure	3†
HI	295*	Overview of Health Informatics	4†
00	111*	Fundamentals of Insurance	4†
		Subtotal	14

#### **SPRING SEMESTER**

Course	No.	Title	Credits
HI	156*	Legal & Regulatory	3†
HI	270*	Billing/Coding PPE	2†
00	112*	Advanced Insurance	3†
00	291*	Billing/Coding Capstone	2†
PSY	101	General Psychology <b>OR</b>	
SOC	111	Introduction to Sociology	3†
		Subtotal	13

#### **TOTAL PROGRAM CREDITS -63~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## MEDICAL TRANSCRIPTION

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor:** Deborah Newton

This program is offered completely on-line.

Medical Transcriptionists are part of the healthcare team, working primarily with medical documents and reports. Upon completion of the program, students have the skills and knowledge necessary to perform as entry-level transcriptionists.

#### Outcomes: Graduates are prepared to:

- Use current word processing software efficiently and effectively, including developing and utilizing macros and shortcuts.
- Use medical language appropriately and understand anatomy, physiology, pharmacology, pathophysiology, laboratory tests, and diagnostic tests.
- Spell, proofread, and use correct grammar, punctuation, and syntax in medical reports.
- Understand HIPPA and follow guidelines to protect patient confidentiality and patient records.
- Transcribe reports for a variety of speciality areas, thereby increasing understanding of medical language and procedures for those speciality areas.
- Practice transcribing reports from doctors who are not native English speakers.
- Use medical references appropriately and efficiently, particularly the AAMT Book of Style.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$5999
Application Fee.....	30
Lab Fees.....	90
Books/Supplies.....	1800
TOTAL.....	\$7919

A grade of "C-" or above must be achieved in all courses to advance and graduate from the program.

#### FALL SEMESTER

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3†
CIT	110	Introduction to Computers	3†
ENGL	121**	Composition I	3†
MATH	103**	Introduction to Algebra <b>OR</b>	
MATH	104**	Business Mathematics	4†
OO	107	Keyboarding Basics	3†
		Subtotal	16

#### SPRING SEMESTER

Course	No.	Title	Credits
BIO	127	Anatomy & Physiology I for non-clinical majors	4†
HI	132*	Health Data Content and Structure	3†
HI	156*	Legal & Regulatory Aspects of Healthcare	3†
OO	255*	Medical Transcription I	3†
PSY	101	General Psychology <b>OR</b>	
SOC	111	Intro to Sociology	3†
		Subtotal	16

#### FALL SEMESTER

Course	No.	Title	Credits
BIO	128*	Anatomy & Physiology II for non-clinical majors	4†
ENGL	124**	Business & Prof Comm	3†
OO	111*	Fund of Health Insurance	4†
OO	256*	Medical Transcription II	3†
OO	266*	Microsoft Word	3†
		Subtotal	17

#### SPRING SEMESTER

Course	No.	Title	Credits
AH	115	Health Care Personnel and Supervision	2†
AH	194	Basic Pharmaceuticals	1†
AH	201*	Medical Science	3†
CIT	120	Internet Essentials	2†
OO	257*	Medical Transcription III	3†
		Electives	3†
		Subtotal	14

#### SUGGESTED ELECTIVES

Course	No.	Title	Credits
AH	125	Fund of Forensic Science	2
BUS	299	Transcription Internship	VAR
HI	237*	CPT Coding	3
OO	220	Preparing Resumes	1
OO	221	Interviewing for Jobs	1
PHIL	238	Medical Ethics	3

#### TOTAL PROGRAM CREDITS - 63~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



# YOUR Future - ACADEMIC PROGRAMS

## MEDICAL TRANSCRIPTION

### CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Deborah Newton

This program is offered completely on-line.

Medical Transcriptionists are part of a health care team, working primarily with medical documents and reports. The College currently offers a Certificate of Applied Science program and an AAS degree. Both programs provide students with skills and knowledge necessary to perform as entry-level transcriptionists.

#### **Outcomes: Graduates are prepared to:**

- Use medical language appropriately and understand anatomy, physiology, pharmacology, pathophysiology, laboratory tests, and diagnostics tests.
- Spell, proofread, and use correct grammar, punctuation, and syntax in medical reports.
- Understand HIPPA and follow guidelines to protect patient confidentiality and patient records.
- Transcribe, format, and edit the most common medical reports: progress notes, history and physical reports, consultations, discharge summaries, and operative reports.
- Use medical references appropriately and efficiently.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$2999
Application Fee.....	30
Books/Supplies.....	1200
TOTAL.....	\$4229

A grade of "C-" or above must be achieved in all courses to advance and graduate from the program.

#### **FALL SEMESTER**

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3†
BIO	127	Anatomy and Physiology I for non-clinical majors	4†
CIT	110	Introduction to Computers	3†
MATH	103**	Introduction to Algebra <b>OR</b>	
MATH	104**	Business Mathematics	4†
OO	107	Keyboarding Basics	3†
		Subtotal	17

#### **SPRING SEMESTER**

Course	No.	Title	Credits
AH	201*	Medical Science	3†
ENGL	121**	English Composition	3†
HI	156*	Legal & Regulatory Aspects of Healthcare	3†
OO	255*	Med Transcription I	3†
OO	266*	Microsoft Word	3†
PSY	101	General Psychology <b>OR</b>	
SOC	111	Intro to Sociology	3†
		Subtotal	18

#### **SUMMER SEMESTER**

Course	No.	Title	Credits
OO	256*	Med Transcription II	3†

#### **SUGGESTED ELECTIVES**

Course	No.	Title	Credits
BUS	299	Transcription Internship	VAR
HI	132*	Health Data Content and Structure	3
OO	265*	WordPerfect	3
PHIL	238	Medical Ethics	3

#### **TOTAL CREDITS – 38~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

#### **Transition to the Associate of Applied Science (AAS) Degree:**

The Medical Transcription Certificate program is designed to train entry-level Medical Transcriptionists. The curriculum can be completed online so that students across the state can take advantage of this opportunity. However, the Medical Transcription profession is complex, and students should recognize the need for continuing education, even as they begin their careers. The Associate of Applied Science degree in Medical Transcription provides that opportunity.

All courses from the certificate program transfer into the AAS program. Students who continue into the AAS degree program in Medical Transcription must take an additional semester of Anatomy and Physiology to increase their understanding of human body structures and functions. In addition, students in the AAS program have the opportunity to increase computer skills, understand the entire medical record, and expand English skills - all essential to their continued success as Medical Transcriptionists. Students should discuss their long-term goals with the Program Director to determine the best course of study. The AAS degree can also be completed online.



## OFFICE ADMINISTRATION AND TECHNOLOGY

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisors:** Donna Eakman  
Deborah Newton

**NOTE:** This program is tentatively under moratorium and will not be intaking new students in 2008-2009. Please contact the Business and Technology department at 406-771-4391 for more information.

The Office Administration and Technology program is designed to prepare students with the technical skills and knowledge necessary for careers in a variety of business and office settings. The program emphasizes in-depth training in a wide variety of office skills, including computer technology, oral and written communication skills, transcription, records management, keyboarding and document formatting. Students may choose to specialize in executive, legal, or medical specialty areas.

#### Outcomes: Graduates are prepared to:

- Communicate effectively in both oral and written communication;
- Use the appropriate software and hardware for applications in the business office;
- Manage the information needed for successful operation of the business;
- Apply interpersonal relations concepts and techniques to personal and professional situations;
- Understand and apply mathematical concepts and models; and
- Solve business problems by applying business principles, communication standards, and office management skills.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$7499
Application Fee .....	30
Books/Supplies .....	1750
<b>TOTAL</b> .....	<b>\$9279</b>

#### **REQUIRED COURSES:**

OO 107 Keyboarding Basics or Challenge Exam

#### **FALL SEMESTER**

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3†
ENGL	121**	Composition I	3†
MATH	104**	Business Mathematics	4†
OO	179	Records Management	3†
<i>Executive or Legal Specialty:</i>			
OO	180	Legal Studies	4†
<b>OR</b>			
<i>Medical Specialty:</i>			
AH	185	Basic Medical Terminology	3†
		Subtotal	16

#### **SPRING SEMESTER**

Course	No.	Title	Credits
BUS	106	Intro to Business	3†
OO	108*	Advanced Keyboarding	3†
OO	260*	Machine Transcription	3†
OO	266*	Microsoft Word	3†
<i>Executive Specialty:</i>			
CIT	205*	Database Management I	3†
<b>OR</b>			
<i>Legal Specialty:</i>			
CIT	280	Desktop Publishing	3
AH	185	Basic Medical Terminology	3
ACCT	102*	Accounting Procedures II	3
ACCT	190*	Payroll Accounting	3
<b>OR</b>			
<i>Medical Specialty:</i>			
BIO	127	Anatomy & Physiology I for non-clinical majors	4†
		Subtotal	15-16

#### **SUMMER SEMESTER**

Course	No.	Title	Credits
<i>Medical Specialty:</i>			
OO	111*	Fund of Health Insurance	4†

#### **FALL SEMESTER**

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3†
CIT	120	Internet Essentials	2†
CIT	140*	Presentation Fundamentals	1†
COMM	135	Interpersonal Communication	3†
ENGL	124**	Business & Professional Comm	3†
<i>Executive or Legal Specialty:</i>			
BUS	255*	Legal Environment	3†
<b>OR</b>			
<i>Medical Specialty:</i>			
HI	237*	CPT Coding	3†
		Subtotal	15

#### **SPRING SEMESTER**

Course	No.	Title	Credits
CIT	220*	Electronic Spreadsheets	3†
OO	173*	Computer Calculators	1†
OO	220	Resumes	1†
OO	221	Interviewing for Jobs	1†
OO	295*	Admin Office Procedures	3†
<i>Executive Specialty:</i>			
OO	265*	WordPerfect	3†
CIT	280*	Desktop Publishing	3†
<b>OR</b>			
<i>Legal Specialty:</i>			
OO	265*	WordPerfect	3†
OO	287*	Legal Transcription	4†
<b>OR</b>			
<i>Medical Specialty:</i>			
AH	201*	Medical Science	3†
OO	255*	Med Transcription I	3†
		Subtotal	15-16

#### **TOTAL CREDITS:**

**EXECUTIVE SPECIALTY - 61~**

**LEGAL SPECIALTY - 61~**

**MEDICAL SPECIALTY - 66~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

# YOUR Future - ACADEMIC PROGRAMS

## OFFICE SUPPORT

### CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisor:** Donna Eakman  
Deborah Newton

**NOTE:** This program is tentatively under moratorium and will not be intaking new students in 2008-2009. Please contact the Business and Technology department at 406-771-4391 for more information.

The one-year certificate program in Office Support prepares students for entry level positions in a variety of office settings. The program emphasizes skills in oral and written communications, word processing, ten-key, records management, keyboarding, and document formatting. Students may emphasize areas in general office skills, the legal office, or the medical office by selecting appropriate elective courses. All courses transfer into the AAS degree in Office Administration and Technology.

#### **Outcomes: Graduates are prepared to:**

- Communicate effectively in both oral and written communication;
- Use the appropriate software and hardware for applications in the business office;
- Manage the information needed for successful operation of the business;
- Apply interpersonal relations concepts and techniques to personal and professional situations;
- Understand and apply mathematical concepts and models; and
- Solve business problems by applying business principles, communication standards, and office management skills.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$2999
Application Fee.....	30
Books/Supplies.....	1100
<b>TOTAL.....</b>	<b>\$4129</b>

#### **REQUIRED SKILLS**

OO 107 Keyboarding Basics or Challenge exam

#### **FALL SEMESTER**

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3†
ENGL	124**	Business & Professional Comm	3†
MATH	104**	Business Math	4†
OO	108*	Advanced Keyboarding	3†
OO	179	Records Management	3†
		Elective	3†
		Subtotal	19

#### **SPRING SEMESTER**

Course	No.	Title	Credits
COMM	135	Interpersonal Communication	3†
OO	173*	Computer Calculators	1†
OO	220	Resumes	1†
OO	221	Interviewing for Jobs	1†
OO	265*	WordPerfect <b>OR</b>	
OO	266*	Microsoft Word	3†
OO	295*	Admin Office Procedures	3†
		Elective	3†
		Subtotal	12

#### **SUGGESTED ELECTIVES**

Select two from the following (consult advisor)

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3†
AH	185	Basic Medical Terminology	3†
OO	111*	Fund of Health Insurance	4†
OO	180	Legal Studies	4†
OO	260*	Machine Transcription	3†

#### **TOTAL PROGRAM CREDITS – 34-35~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## PHYSICAL THERAPIST ASSISTANT

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor:** Andrea Johnson

**NOTE:** This program is under review. Please contact the Program Director at 406-771-5134 or andrea.johnson@msugf.edu for more information.

The formal portion of the Physical Therapist Assistant (PTA) program begins fall semester with a limited enrollment of 16 students. There are 29 credits of pre-requisite coursework which may take one year or longer to complete. All pre-requisite coursework must be completed with a "C-" or better. The student must apply for acceptance into the formal portion of the PTA program and be accepted. A grade of "C-" or "pass" is required for all coursework within the PTA program after formal acceptance.

The formal portion of the PTA program is challenging and consists of fall, spring, and summer semesters; taking one full year. This time includes built-in clinical experiences which may or may not be in the Great Falls area. Upon completion of the PTA program, the graduate is prepared to take the National Physical Therapist Assistant Examination (NPTAE) provided by the Federation of State Boards of Physical Therapy and must receive a passing score in order to become a licensed PTA. Licensure is required to practice as a PTA in Montana and is overseen by the State of Montana Board of Physical Therapy Examiners.

The PTA program is designed to graduate individuals who are knowledgeable, competent, self-assured, adaptable, and service-oriented patient/client care providers performing their duties within the ethical and legal guidelines of the physical therapy profession as an entry-level PTA having successfully passed the NPTAE. Graduates are prepared to work in a variety of healthcare settings including acute care, outpatient, rehabilitation, and extended care.

The Montana State University - Great Falls College of Technology's Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE).

#### Outcomes: Graduates are prepared to:

- Demonstrate theoretical knowledge, patient care skills, ethical guidelines, and affective qualities related to physical therapy practice.
- Demonstrate safe, effective, moral, and ethical behavior in the realm of physical therapy practice.
- Skillfully integrate related concepts and theories of liberal arts and basic science in the realm of physical therapy practice.
- Utilize effective communication skills, critical thinking, and planning skills in the realm of physical therapy practice.
- Display a commitment to lifelong learning, ongoing professional development, and excellence in the realm of physical therapy practice.

#### Estimated Resident Program Cost:

Tuition and Fees .....	\$5999
Application Fee.....	30
Lab Fees.....	340
Books/Supplies.....	<u>2000</u>
TOTAL .....	\$8369

#### PRIOR TO FALL ADMISSION INTO THE PTA PROGRAM STUDENTS MUST:

- Have completed high school physics AND chemistry (students without high school coursework in these areas should consult the PTA Program Director as to the appropriate college course(s) needed to meet this requirement);
- Have completed a minimum of 40 hours of observation at physical therapy clinics/ facilities with a licensed PT or PTA in at least 2 different settings (observation forms available from Program Director);

- Write and submit a short reflective paper detailing their experiences at clinical observations (criteria and rubric for this paper is provided to the student);
- Show proof of computer literacy (students without high school coursework should consult Program Director as to the appropriate college course(s) needed to meet this requirement);
- Earn a Grade Point Average (GPA) of 2.5 high on pre-requisite coursework.
- Earn a grade of "C-" or higher in all pre-requisite coursework; and
- Provide three letters of reference (sources of each reference is specified, rubric provided to the student, consult the Program Director).

#### PREREQUISITE COURSES

Course	No.	Title	Credits
AH	108*	Disease Concepts	2†
AH	145	Introduction to Medical Terminology	1†
BIO	213**	Anatomy & Phys I Lecture/Lab	4†
BIO	214*	Anatomy & Phys II Lecture/Lab	4†
COMM	135	Interpersonal Communication	3†
ENGL	121**	Composition I	3†
MATH	161**	College Algebra w/ Science Applications	3†
PSY	101	General Psychology	3†
PSY	109	Lifespan Development	3†
SOC	111	Introduction to Sociology	<u>3†</u>
		Subtotal	29

#### PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE

##### FALL SEMESTER

Course	No.	Title	Credits
PTA	101*	Physical Therapist Assisting I/Lab	4†
PTA	105	Intro to Physical Therapy	3†
PTA	205*	Motion & Human Body's Response/Lab	4†
PTA	210*	Clinical Experience I	<u>3†</u>
		Subtotal	17

##### SPRING SEMESTER

Course	No.	Title	Credits
PTA	201*	Physical Therapist Assisting II/Lab	4†
PTA	208*	Introduction to Neuroscience	3†
PTA	211*	Physical Therapist Assisting III/Lab	4†
PTA	215*	Introduction to Orthopedics/Lab	3†
PTA	220*	Clinical Experience II (6-week)	<u>4†</u>
		Subtotal	18

##### SUMMER SEMESTER

Course	No.	Title	Credits
PTA	225*	Seminar & Project in PTA	3†
PTA	230*	Clinical Experience III (8-week)	<u>5†</u>
		Subtotal	8

#### TOTAL PROGRAM CREDITS – 72 ~

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

# YOUR Future - ACADEMIC PROGRAMS

## PRACTICAL NURSE

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisors:** Cheryll Alt  
Patti Kercher  
Cindy Schultz

The Practical Nurse program prepares individuals to function as entry-level practical nurses with the ability to give safe, effective nursing care. The Practical Nurse program at Montana State University - Great Falls College of Technology is currently approved by the Montana State Board of Nursing.

Upon completion of the Associate of Applied Science Degree in Practical Nursing, students will be prepared to begin a successful career as a practical nurse. Students are prepared to sit for the national licensure examination for practical nursing.

#### **Outcomes: Graduates are prepared to:**

- Administer effective and ethical individual patient care.
- Communicate professionally with all medical and supportive staff.
- Integrate bio-psychosocial and scientific principles while providing technically competent care in a variety of healthcare settings.
- Work in a variety of health care settings such as hospitals, ambulatory care, physician's offices, home healthcare, dialysis, assisted living facilities, and other geriatric environments.
- Promote lifelong learning fostering the development of professional growth, critical thinking, and leadership.
- Demonstrate knowledge of the major health problems affecting our society.

The Practical Nurse program is a limited enrollment program. Interested students must apply for entry into the program. An application packet is available on the program website and from the Health Science Program Assistant. The length of the program is three consecutive semesters. Accepted students will be required to provide proof of Health Care Provider CPR certification, negative Tuberculosis test, and provide a physician's authorization before the beginning of the fall semester. Computer skills are highly recommended.

The Hepatitis B immunization series is strongly recommended before entrance into the program. A student may be denied access to clinical rotations without an adequate Hepatitis B titer. Students having religious or personal conflicts against receiving Hepatitis B vaccine must sign a release form.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$7499
Application Fee.....	30
Insurance .....	24
Lab Fees.....	230
Books.....	2250
Uniforms.....	225
TOTAL.....	\$10258

#### **PREREQUISITE COURSEWORK**

The following courses must be completed prior to admission into the Practical Nurse Program. All prerequisite course work must be completed with a minimum grade of "C-" in each course and a minimum cumulative GPA in prerequisite course work of 2.0. Grades in prerequisite courses are a major factor in ranking applications for program acceptance.

#### **FIRST SEMESTER**

Course	No.	Title	Credits
BIO	213**	Anatomy & Physiology I/Lab	4†
CHM	111*	Inorganic Chemistry/ Lab	4†
MATH	161**	College Algebra w/ Science Applications	3†
NURS	100	Introduction to Nursing	1†
		Subtotal	12

#### **SECOND SEMESTER**

Course	No.	Title	Credits
AH	219*	Nutrition & Diet Therapy	2†
BIO	214*	Anatomy & Physiology II/Lab	4†
ENGL	121**	Composition I	3†
PSY	101	General Psychology	3†
		Subtotal	12

Science courses must be completed within five (5) years of application to the program and other courses must be completed within 15 years of applying to the Practical Nurse Program.

#### **PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE**

Once enrolled in nursing courses, a minimum of a grade of "C-" in all courses is required to continue in the program. In the clinical setting, students must achieve a grade of 75% in all rotations of each clinical experience.

The courses listed below are required in the program of study for the Associate of Applied Science degree in Practical Nursing. The courses are offered at MSU - Great Falls College of Technology in the following sequence:

#### **FALL SEMESTER**

Course	No.	Title	Credits
NURS	140*	Pharmacology	3†
NURS	150*	Fundamentals of Nursing	7†
NURS	250*	Gerontology	2†
		Subtotal	12

#### **SPRING SEMESTER**

Course	No.	Title	Credits
NURS	260*	Adult Nursing	7†
NURS	270*	Maternal Child Nursing	3†
NURS	280*	Mental Health Nursing	2†
		Subtotal	12

#### **SUMMER TERM**

Course	No.	Title	Credits
NURS	290*	Nursing Leadership	2†

#### **SUGGESTED ELECTIVES**

Course	No.	Title	Credits
AH	120*	IV Therapy	1

\* This class is a highly recommended addition to the standard nursing curriculum. It will provide you with IV certification which many employers value or require for employment.

#### **TOTAL PROGRAM CREDITS - 50~**

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## RADIOLOGIC TECHNOLOGY

### ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisors:** Greg Paulauskis  
Tom Liston

Radiologic Technologists, also referred to as Radiographers, work in a professional environment at a hospital, private office, or clinic. Radiologic Technologists are trained to perform radiologic examinations in accordance with radiation safety standards for themselves, clinical staff and their patients. Skill sets include: patient care, positioning, operating X-ray equipment, film quality assessment, technical factors, and interacting with the general public, ancillary workers, healthcare workers, and physicians.

The Radiologic Technology student learns how to accurately demonstrate body structures by determining proper exposure factors, manipulating medical imaging equipment, evaluating the radiographic image quality; and providing for patient protection, safety, and comfort during radiographic procedures. Some technologists choose to specialize in computed tomography, magnetic resonance imaging, mammography, ultrasound, nuclear medicine, positron emission tomography or radiation therapy. Some of these modalities require additional certification. The student will be introduced to these specialty areas. Radiologic Technology is an expanding field in the area of medical diagnosis and treatment. Imaging methods and procedures are updated and implemented on a regular basis.

The Radiologic Technology Program is a two-year program designed to prepare individuals with the knowledge, skills, and professional attitude necessary for successful employment as a Radiologic Technologist.

#### **Outcomes: Graduates are prepared to:**

- Employ professional judgment, problem solving, and critical thinking to identify, assess, and analyze the situation providing quality patient care in a safe and ethical manner.
- Demonstrate effective interpersonal skills through verbal and written communication.
- Practice within the standards established by the profession.
- Demonstrate appropriate cultural, legal, ethical, and professional values.
- Practice as a qualified registered technologist in any type of patient care facility.

Accreditation for the Radiologic Technology Program is through Northwest Commission on Colleges and Universities coursework. This regional accrediting agency is the organization that accredits MSU - Great Falls College of Technology.

After completion of the program the graduate is eligible to take a nationally recognized certification examination administered by the American Registry of Radiologic Technologist (ARRT).

In seeking admission into the program, the student is required to complete the requirements of the [Radiologic Technology Program Student Information and Application Packet](#). The Packet can be printed from the Program website.

Students in the Radiologic Technology Program must earn a "C-" or better in ALL classes in the two-year program. Any grade less than a "C-" in any class will result in the student having to retake that class.

#### **Estimated Resident Program Cost:**

Tuition and Fees .....	\$8999
Application Fee.....	30
Insurance.....	75
Books/Supplies.....	1900
TOTAL.....	\$11,004

Computer skills, Physics, and Chemistry are highly recommended.

#### **DEGREE COMPLETION OPTION**

Students who have successfully completed and documented that they graduated from an accredited Radiologic Technology program and possess a current Radiologic Technologist State license may apply to the College's Radiologic Technology AAS Degree Completion program and earn an Associate of Applied Science degree by taking all of the prerequisite courses listed below. For more information contact Admissions or the Program Director of the Radiologic Technology Program.

**NOTE:** Applicants must complete the following courses with a minimum grade of "C-" in each course prior to formal acceptance into the program.

#### **PREREQUISITE COURSES**

Course	No.	Title	Credits
AH	145	Intro to Medical Terminology	1†
BIO	202	Human Anatomy for RAD Tech	3†
COMM	135	Interpersonal Communication	3†
ENGL	121**	Composition I	3†
MATH	---**	103 or Higher	3-4†
		Subtotal	13-14

#### **PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE**

The courses below are to be taken in the order that they are listed.

Admission into the Radiologic Technology program is mandatory to qualify to take the courses below.

A grade of "C-" or above must be achieved in all courses to advance and graduate from the program.

#### **FALL SEMESTER**

Course	No.	Title	Credits
RAD	105	Intro to Radiologic Technology	2†
RAD	110	Radiographic Procedures I	2†
RAD	115	Radiographic Principles I	3†
RAD	120	Radiobiology/Radiation Protection	3†
RAD	140	Clinical Education I	7†
		Subtotal	17

#### **SPRING SEMESTER**

Course	No.	Title	Credits
RAD	111*	Radiographic Procedures II	3†
RAD	117*	Radiographic Principles II	3†
RAD	130*	Patient Care in Radiology	2†
RAD	141*	Clinical Education II	8†
		Subtotal	16

#### **SUMMER SEMESTER**

Course	No.	Title	Credits
RAD	240*	Radiologic Internship	8†

#### **FALL SEMESTER**

Course	No.	Title	Credits
RAD	210*	Radiographic Procedures III	4†
RAD	220*	Radiographic Principles III	2†
RAD	241*	Clinical Education III	8†
		Subtotal	14

#### **SPRING SEMESTER**

Course	No.	Title	Credits
RAD	215*	Radiographic Procedures IV	2†
RAD	242*	Clinical Education IV	10†
RAD	270	Registry Review	2†
		Subtotal	14

#### **TOTAL PROGRAM CREDITS - 82-83~**

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

# YOUR Future - ACADEMIC PROGRAMS

## RESPIRATORY CARE ASSOCIATE OF APPLIED SCIENCE DEGREE

**Advisor: Leonard Bates**

Most people take breathing for granted. It's second nature, an involuntary reflex. But for the thousands, who suffer from breathing problems, each breath is a major accomplishment. Those people include patients: with chronic lung problems, such as asthma, bronchitis, and emphysema; heart attack and accident victims; premature infants; and people with cystic fibrosis, lung cancer, and AIDS.

In each case the patient will likely receive treatment from a Respiratory Therapist (RT) under the direction of a physician. RTs work to evaluate, treat and care for patients with breathing disorders. They are a vital part of a hospital's lifesaving response team that answers patient emergencies.

While most RTs work in hospitals, an increasing number have branched out into alternative care sites, such as nursing homes, physicians' offices, home health agencies, specialized care hospitals, medical equipment supply companies, and patients' homes.

A RT performs both diagnostic and therapeutic procedures, such as:

- Obtaining and analyzing sputum and breath specimens;
- Take blood specimens and analyze them to determine levels of oxygen, carbon dioxide, and other gases;
- Interpreting data obtained from specimens;
- Measuring the capacity of patients lungs to determine if there is impaired function;
- Performing studies on the cardiopulmonary system;
- Studying disorders of people with disruptive sleep patterns;
- Operating mechanical ventilators for patients who cannot breath adequately;
- Delivering inhaled medications and medical gases;
- Teaching patients with lung disorders to maintain meaningful and active life systems.

RTs work collaboratively with other health care practitioners. Critical thinking and problem solving skills are mandatory for success in this environment. Strong verbal and written communication skills are necessary when interacting with other members of the multidisciplinary health care team as well as the patients and families. Such a role also requires a broad educational background in English composition, communication, and interpersonal relations. Computer literacy is especially important in today's health care environment.

The RT Program is a two-year program designed to help students develop the knowledge, skills and professional attitude necessary for a successful career as RT. Upon completion of the AAS degree in RT, graduates will be prepared to begin a career as Advanced Practitioner RT. Graduates are eligible to sit for the National Board for Respiratory Care (NBRD) Entry Level and the Advanced Practitioner examinations.

### Outcomes: Graduates are prepared to:

- Practice as a registered RT in the healthcare delivery system;
- Comply with standards-of-practice, and ethical code of the American Association for Respiratory Care;
- Apply critical thinking and problem solving skills to patient care.
- Demonstrate effective verbal and written communication as well as good interpersonal skills; and
- Safely and correctly utilize current technology and equipment in the practice of Respiratory Care.

The RT program is accredited by the Commission on Accreditation of Allied Health Education Programs through the Commission on Accreditation of Respiratory Care Programs.

### Estimated Resident Program Cost:

Tuition and Fees .....	\$8999
Application Fee .....	30
Books/Supplies .....	1900
Uniforms .....	63
Lab Fees .....	545
TOTAL .....	\$11,537

### PRE-RESPIRATORY COURSES AND SKILLS

Background in basic science and math is essential to prepare applicants to succeed in the RT program.

Prior to admission to the RT program students must have completed high school chemistry and demonstrate computer literacy. (Students without high school courses should consult the RT Program Director about the appropriate college coursework to meet this requirement.)

Prior to formal program acceptance, the applicant must successfully complete all of the program prerequisites with a minimum grade of "C-".

### PREREQUISITE COURSES

Course	No.	Title	Credits
BIO	213**	Anatomy & Physiology I/Lab	4†
ENGL	121**	Composition I	3†
MATH	161**	College Algebra w/ Science Applications	3†
COMM	135	Interpersonal Communication <b>OR</b>	
PSY	101	General Psychology <b>OR</b>	
PSY	109	Lifespan Development	3†
		Subtotal	13

The courses below are to be taken in the order that they are listed. Admission into the RT program and completion of the previous semester are required.

### PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE

A grade of "C-" or above must be earned in all required courses to continue in and graduate from the program. CPR is a prerequisite for entrance into the first clinical experience. Each student is required to sign a clinical contract defining their professional responsibilities and behavior and must complete two to four weeks of clinic outside of Great Falls during the summer semester.

### FALL SEMESTER

Course	No.	Title	Credits
BIO	214*	Anatomy & Physiology II/Lab	4†
RC	150	Respiratory Care	2†
RC	155	Respiratory Physiology	3†
RC	170	Resp Tech & Procedures I	5†
		Subtotal	14

### SPRING SEMESTER

Course	No.	Title	Credits
RC	140*	Resp Care Clinic I	4†
RC	171*	Resp Techn & Procedures II	5†
RC	180*	Ventilator Management	2†
RC	255*	Pulmonary Assessment	3†
		Subtotal	14

### SUMMER SEMESTER

Course	No.	Title	Credits
RC	141*	Resp Care Clinic II	4†
RC	260*	Neonatal Respiratory Care	3†
		Subtotal	7

### FALL SEMESTER

Course	No.	Title	Credits
EMS	145*	ACLS Preparation	1†
RC	240*	Resp Care Clinic III	5†
RC	245*	Resp Care Clinical Seminar I	1†
RC	250*	Hemodynamic Monitoring	3†
RC	275*	Pulmonary Disease	2†
		Subtotal	12

### SPRING SEMESTER

Course	No.	Title	Credits
AH	140	Intravenous Therapy	1†
EMS	146	Pediatric Advanced Life Support	1†
RC	241*	Resp Care Clinic IV	5†
RC	246*	Resp Care Clinical Seminar II	1†
RC	265*	Resp Care in Alternative Sites	1†
RC	273*	Pulmonary Function Testing	1†
RC	280*	Supervisory Management	2†
		Subtotal	12

### TOTAL PROGRAM CREDITS - 72~

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## SURGICAL TECHNOLOGY

### ASSOCIATE OF APPLIED SCIENCE DEGREE

### NATIONALLY RECOGNIZED AS "PAE ELITE TWENTY PROGRAM"

**Advisor:** Sandra I. Allen

**What is a Surgical Technologist?** Surgical Technologists, often referred to as "scrub nurse", "scrub tech" or "operating room tech", are integral members of the operating room team. Their role includes assisting the physician during surgery by preparing and handling instruments, equipment, supplies and medications.

**Job opportunities:** Surgical Technologists usually work within the operating room itself which may offer specialization in specific fields such as orthopedics, plastics, ENT, ophthalmic or cardiovascular. However technologists may qualify for work within various medical fields such as: dental assistants, veterinary assistants, procurement technicians and instrument processing technicians without much more education than on the job training. As medical technology advances, so do the opportunities for the working surgical technologist.

**Curriculum:** The curriculum is designed as hybrid courses of lab, classroom, online instruction and surgery clinicals to provide theoretical foundations of operating room techniques. The student will learn skills in a competency-based clinical lab and apply learned skills in the clinical facilities. Within the operating room, the student will observe, and then participate in a supervised position. The student will then be expected to advance to a high level of independence by their internship.

Students who enter the program are required to rotate through clinical sites. Some clinical rotations are outside of the Great Falls area. Transportation and housing costs are the responsibility of the student.

Upon completion of the Surgical Technology Program, students will be prepared to begin a career as a surgical technologist. Students are prepared to sit for the national Program Assessment Examination (PAE) and for the national examination to become a Certified Surgical Technologist (CST).

The Surgical Technology Program will meet or exceed Accreditation Review Committee on Education in Surgical Technology (ARC-ST) benchmark standards on student retention, PAE and/or CST exam results, graduate job placement, employer satisfaction, and graduate satisfaction.

### Outcomes – Graduates are prepared to:

- Work with surgeons, anesthesiologists, nurses, and other health professionals in providing direct or indirect patient care while demonstrating positive work ethic, professionalism and appropriate interpersonal skills in the surgical setting.
- Practice professional, value directed actions based on didactic and clinical knowledge, ethical principles and legal standards as a member of the surgical team.
- Organize surgical instrumentation, supplies, and equipment in an efficient manner while utilizing principles of aseptic technique for physical preparation and maintenance of the surgical environment.
- Perform under pressure in stressful and emergency surgical situations.
- Demonstrate understanding of biomedical sciences and technology as they apply to the patient focused events that occur in the operating room.

**Application and Registration:** The Surgical Technology Program has a limited number of students per year due to clinical space and various other factors. This requires the student to complete a conditional application one semester prior to the semester they plan to begin the program. Program begins only in the spring semester. Please call for an appointment to obtain this application from the Program Director.

For more detailed information please visit :  
[www.msugf.edu/academics/healthsci/Programs/SurgicalTechCert.htm](http://www.msugf.edu/academics/healthsci/Programs/SurgicalTechCert.htm)

**Program accreditation:** This program is nationally accredited through CAAHEP, the Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756, 727-210-2350, mail@caahep.org in collaboration with the Accreditation Review Committee on Education in Surgical Technology (ARC-ST).

### Estimated Resident Program Cost:

Tuition and Fees .....	\$5999
Application Fee.....	30
Insurance .....	560
Books/Supplies.....	1850
TOTAL.....	\$8439

### PREREQUISITE COURSES

Course	No.	Title	Credits
BIO	107**	Fundamentals of Human Bio/Lab	4†
BIO	213**	Anatomy & Physiology I with lab	4†
PSY	101	General Psychology <b>OR</b>	
COMM	135	Interpersonal Communication	3†
AH	145	Introduction to Medical Terminology	1†
BIO	214*	Anatomy & Physiology II with lab	4†
MATH	103**	Introductory Algebra	4†
ENGL	119**	Introduction to College Writing <b>OR</b>	
ENGL	124**	Business & Professional Communication	3†
		Subtotal	23

### PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE

The courses below are to be taken in the order that they are listed.

Admission into the Surgical Technology program is mandatory to qualify to take the courses below. Contact Program Director for application materials

A grade of "C-" or above must be achieved in all courses to advance and graduate from the program.

### SPRING SEMESTER

Course	No.	Title	Credits
PHIL	238	Medical Ethics	3†
BIO	280*	Microbiology and Communicable Diseases	4†
SURG	101*T	Introduction to Safe Patient Care	3†
SURG	109*	Surgical Procedures Lab I	3†
SURG	154*T	Surgical Pharmacology	3†
		Subtotal	16

### FALL SEMESTER

Course	No.	Title	Credits
SURG	202*T	Operating Room Techniques	5†
SURG	201*T	Surgical Procedures I	4†
SURG	110*	Surgical Procedures Lab II	3†
SURG	192*	Clinical Experience I	4†
		Subtotal	16

### SPRING SEMESTER

Course	No.	Title	Credits
SURG	205*T	Surgical Procedures II	5†
SURG	193*	Clinical Experience II	5†
SURG	194*	Internship	5†
		Subtotal	15

(Courses marked with a "T" are taught online by UM-COT in Missoula, MT through a collaborative program agreement.)

### TOTAL PROGRAM CREDITS – 70 ~

~ Many students need preliminary math, English, computer and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## WELDING TECHNOLOGY CERTIFICATE OF APPLIED SCIENCE DEGREE

**Advisors:** Kyle Gillespie in Great Falls  
David Cohenour in Bozeman

This program is offered both at MSU - Great Falls and the College of Technology in Bozeman

Upon completion of this program, students are AWS qualified welders in one or more welding processes and are eligible to apply to be listed in the AWS National Registry of Welders.

### Outcomes: Graduates are prepared to:

- Make satisfactory welds in all positions using the following welding types:
  - Shielded Metal Arc Welding (SMAC)
  - Gas Metal Arc Welding (GMAW)
  - Flux Cored Arc Welding (FCAW)
  - Gas Tungsten Arc Welding (GTAW)
- Make satisfactory cuts with the following processes:
  - Oxygen Fuel Cutting (OFC)
  - Plasma Arc Cutting (PAC)
  - Air Carbon Arc Cutting (ACC)
- Interpret welding blueprints and welding symbols.
- Perform pipe layouts.
- Utilize basic welding metallurgy

### Estimated Resident Program Cost:

Tuition and Fees .....	\$2999
Application Fee.....	30
Tools/clothing .....	varies
Lab Fees.....	200
Books/Supplies .....	1000
TOTAL.....	\$4229

### **FALL SEMESTER**

Course	No.	Title	Credits
ENGL	118**	Intro to Critical Reading and Writing	4
MATH	100**	Math for the Trades	3
WELD	101	Welding Theory I	1
WELD	102	Welding Practical I	3
WELD	109	Blueprint Reading & Welding Symbols	2
WELD	110	Applied Metallurgy	2
		Subtotal	15

### **SPRING SEMESTER**

Course	No.	Title	Credits
COMM	135	Interpersonal Communication	3
WELD	103*	Welding Theory II	1
WELD	104*	Welding Practical II	3
WELD	117*	Fabrication Basics	3
WELD	119*	Intro to Structural Welding	3
WELD	126*	Welding Qualification Prep	2
		Subtotal	15

### **TOTAL PROGRAM CREDITS – 30~**

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

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- **Business:** MSU – Bozeman & UM - Western
- **Business Administration:** MSU – Northern
- **Computer Information Systems:** MSU – Northern
- **BSN Nursing:** MSU – Bozeman



## Great Falls Higher Education Center

The campus of Montana State University-Great Falls College of Technology serves as the site for the Montana University System Higher Education Center in Great Falls. The Higher Education Center coordinates courses and programs to be delivered in Great Falls by Montana's four-year campuses. Degree programs and courses offered through the Higher Education Center are primarily designed for area residents who are interested in enrolling in a graduate or four-year degree program not currently available in Great Falls.

Recent examples include an MBA offered by the University of Montana and Bachelor degrees offered by MSU-Bozeman and MSU-Northern. Further information about the Higher Education Center in Great Falls can be requested from Montana State University-Great Falls College of Technology Welcome Desk or by calling the College at 406-761-4300 or 1-800-446-2698 or online at <http://hec.msugf.edu>.

## Higher Education Options

### Business

- MSU – Bozeman
- UM - Western

### Business

- Administration
- MSU – Northern

### Computer

- Information Systems
- MSU – Northern

### BSN Nursing

- MSU Bozeman

## THIS PROGRAM OF STUDY IS DESIGNED FOR STUDENTS PLANNING TO APPLY TO THE MSU BOZEMAN – COLLEGE OF BUSINESS

The College of Business of MSU-Bozeman has a basic curriculum required for the freshman and sophomore years in Accounting, Finance, Management, and Marketing. Completion of this track will allow students to be eligible for formal admission to the MSU-Bozeman College of Business. Students intending to apply for admission to the MSU-Bozeman of Business must complete all program requirements, have a “C” or better in all Business courses, and have a 2.50 minimum cumulative GPA.

**THE INFORMATION ON ALL TRANSFER OPTIONS IS SUBJECT TO CHANGE. STUDENTS SHOULD CONTACT THE MSU-BOZEMAN’S COLLEGE OF BUSINESS. BUSINESS@MONTANA.EDU**

### I. MONTANA UNIVERSITY SYSTEM CORE - 31 CREDITS

#### COMMUNICATION--6 CREDITS

(Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I <b>AND 1 of the following</b>	3
COLS	101	First Year Seminar	3
COMM	130	Public Speaking	3
COMM	135	Interpersonal Communication	3

#### MATHEMATICS--3 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4
MATH	131**	Precalculus Trigonometry	3
MATH	150**	Math for Liberal Arts	3
MATH	161**	College Algebra w/ Science App	3

#### HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
DE	161	Introduction to Design	3
ENGL	114	Intro to Literature	3
ENGL	210*	World Literature I	3
ENGL	211*	World Literature II	3
ENGL	217	Creative Writing	3
HUM	242	Gender & Equality	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3
PHIL	101	Introduction to Philosophy	3
PHIL	232	Basic Ethics	3

#### NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103**	Introduction to Biology/Lab	4
BIO	107**	Fund of Human Biology/Lab	4
BIO	151*	Molecular & Cellular Biology/Lab	4
BIO	152	Organismal Biology/Lab	4
BIO	205	Personal Nutrition	3
CHM	111*	Inorganic Chemistry/Lab	4
CHM	131*	General Chemistry I	4
CHM	132*	General Chemistry II	4
GEOL	101	Introduction to Geology	4
PHYS	110	Survey of Natural Sciences	3
PHYS	130	Fund Physical Science w/Lab	4

### SOCIAL SCIENCES/ HISTORY --6 CREDITS

Course	No.	Title	Credits
HIST	103N	History of the U.S. I	3
HIST	104N	History of the U.S. II	3
HIST	106	History of Western Civ I	3
HIST	107	History of Western Civ II	3
HIST	210N	Montana History	3
PSY	101	General Psychology	3
PSY	109	Lifespan Development	3
SOC	111	Introduction to Sociology	3
SOC	115	Survey of Criminal Justice	3
POLS	206	U.S. Government	3

### CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3
BUS	249	Global Marketing	3
ENGL	214N	Literature of the West	3
HUM	244	American Cultural Values	3
ML	121	Intro to American Sign Lang	3
NAS	201N	Montana’s American Indians	3
NAS	215N	Native American Religious Trad	3

### CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

Courses with an “N” behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

### II. BUSINESS COURSE REQUIREMENTS – 38 CREDITS

Course	No.	Title	Credits
ACCT	101	Acct Procedures I	3
ACCT	102*	Acct Procedures II	3
ACCT	221*	Financial Accounting	3
ACCT	222*	Managerial Accounting	3
BUS	106	Introduction to Business	3
CIT	110	Introduction to Computers	3
ECON	102	Economics I (Macro)	3
ECON	201	Economics II (Micro)	3
ENGL	124*	Business & Professional Comm	3
MATH	181**	Calculus I	4
MATH	216**	Basic Statistics	4
MATH	217**	Intermediate Statistics	3

Note: Students may not use any of the Business Course Requirements to fulfill requirements in the Montana University System Core

### TOTAL PROGRAM CREDITS – 69

### TOTAL CREDITS – 68

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



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## THIS PROGRAM OF STUDY IS DESIGNED FOR STUDENTS PLANNING TO APPLY TO THE MSU – NORTHERN BUSINESS ADMINISTRATION PROGRAM

The Department of Business, MSU-Northern has recommended the following criteria and basic curriculum for the freshman and sophomore years of its Business Technology major with emphasis in Accounting/Finance or Marketing and Small Business Management for transfer:

**THE INFORMATION ON ALL TRANSFER OPTIONS IS SUBJECT TO CHANGE. STUDENTS SHOULD CONTACT KEVIN CARLSON AT MSU-NORTHERN FOR POTENTIAL CHANGES: 406-771-4429, KCARLSON@MSUN.EDU**

### I. MONTANA UNIVERSITY SYSTEM CORE – 31 CREDITS

#### COMMUNICATION – 6 CREDITS

(Need 3 writing and 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I	3
		<b>AND 1 of the following</b>	
COLS	101	First Year Seminar	3
COMM	130	Public Speaking	3
COMM	135	Interpersonal Communication	3

#### MATHEMATICS – 3 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4
MATH	131**	Precalculus Trigonometry	3
MATH	150**	Math for Liberal Arts	3
MATH	161**	College Algebra w/ Science App	3
MATH	181**	Calculus I	4

#### HUMANITIES/FINE ARTS – 6 CREDITS

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
DE	161	Introduction to Design	3
ENGL	114	Intro to Literature	3
ENGL	210*	World Literature I	3
ENGL	211*	World Literature II	3
ENGL	217	Creative Writing	3
HUM	242	Gender & Equality	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3
PHIL	101	Introduction to Philosophy	3
PHIL	232	Basic Ethics	3

#### NATURAL SCIENCE – 7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103**	Introduction to Biology/Lab	4
BIO	107**	Fund of Human Biology/Lab	4
BIO	151*	Molecular and Cellular Bio/Lab	4
BIO	152	Organismal Biology/Lab	4
BIO	205	Personal Nutrition	3
CHM	111*	Inorganic Chemistry/Lab	4
CHM	131*	General Chemistry I	4
CHM	132*	General Chemistry II	4
GEOL	101	Introduction to Geology	4
PHYS	110	Survey of Natural Sciences	3
PHYS	130	Fund Physical Science w/Lab	4

#### SOCIAL SCIENCE/HISTORY – 6 CREDITS

Course	No.	Title	Credits
ECON	102	Economics I (Macro)	3
HIST	103N	History of the U.S. I	3
HIST	104N	History of the U.S. II	3
HIST	106	History of Western Civ I	3
HIST	107	History of Western Civ II	3
HIST	210N	Montana History	3
PSY	101	General Psychology	3
PSY	109	Lifespan Development	3
SOC	111	Introduction to Sociology	3
SOC	115	Survey of Criminal Justice	3
POLS	206	U.S. Government	3

#### CULTURAL DIVERSITY – 3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3
BUS	249	Global Marketing	3
ENGL	214N	Literature of the West	3
HUM	244	American Cultural Values	3
ML	121	Intro to American Sign Lang	3
NAS	201N	Montana's American Indians	3
NAS	215N	Native American Religious Trad	3

#### CULTURAL HERITAGE OF AMERICAN INDIANS – 3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

### II. BUSINESS COURSE REQUIREMENTS – 31 CREDITS

Course	No.	Title	Credits
ACCT	101	Acct Procedures I	3
ACCT	102*	Acct Procedures II	3
ACCT	221*	Financial Accounting	3
ACCT	222*	Managerial Accounting	3
BUS	106	Introduction to Business	3
BUS	230*	Management	3
BUS	255*	Legal Environment	3
CIT	110	Introduction to Computers	3
ECON	201	Economics II (Micro)	3
ENGL	124*	Business & Professional Comm	3
MATH	216**	Basic Statistics	4
MATH	217**	Intermediate Statistics	3

Note: Students may not use any of the Business Course Requirements to fulfill requirements in the Montana University System Core.

#### TOTAL CREDITS – 68

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## THIS PROGRAM OF STUDY IS DESIGNED FOR STUDENTS PLANNING TO APPLY TO THE MSU – NORTHERN COMPUTER INFORMATION SYSTEMS PROGRAM

The Department of Computer Information Systems, MSU-Northern has recommended the following curriculum for transfer to a Bachelor of Science degree in Computer Information Systems.

**THE INFORMATION ON ALL TRANSFER OPTIONS IS SUBJECT TO CHANGE. STUDENTS SHOULD CONTACT MSU-NORTHERN IN GREAT FALLS FOR POTENTIAL CHANGES: 406-771-4428.**

### I. MONTANA UNIVERSITY SYSTEM CORE – 31 CREDITS

#### COMMUNICATION – 6 CREDITS

(Need 3 writing and 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I	3
<b>AND 1 of the following</b>			
COLS	101	First Year Seminar	3
COMM	130	Public Speaking	3
COMM	135	Interpersonal Communication	3

#### MATHEMATICS – 3 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4
MATH	131**	Precalculus Trigonometry	3
MATH	150**	Math for Liberal Arts	3
MATH	161**	College Algebra w/ Science App	3
MATH	181**	Calculus I	4

#### HUMANITIES/FINE ARTS – 6 CREDITS

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
DE	161	Introduction to Design	3
ENGL	114	Intro to Literature	3
ENGL	210*	World Literature I	3
ENGL	211*	World Literature II	3
ENGL	217	Creative Writing	3
HUM	242	Gender & Equality	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3
PHIL	101	Introduction to Philosophy	3
PHIL	232	Basic Ethics	3

#### NATURAL SCIENCE – 7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103**	Introduction to Biology/Lab	4
BIO	107**	Fund of Human Biology/Lab	4
BIO	151*	Molecular and Cellular Bio/Lab	4
BIO	152	Organismal Biology/Lab	4
BIO	205	Personal Nutrition	3
CHM	111*	Inorganic Chemistry/Lab	4
CHM	131*	General Chemistry I	4
CHM	132*	General Chemistry II	4
GEOL	101	Introduction to Geology	4
PHYS	110	Survey of Natural Sciences	3
PHYS	130	Fund Physical Science w/Lab	4

### SOCIAL SCIENCES/HISTORY – 6 CREDITS

Course	No.	Title	Credits
ECON	102	Economics I (Macro)	3
ECON	201	Economics II (Micro)	3
HIST	103N	History of the U.S. I	3
HIST	104N	History of the U.S. II	3
HIST	106	History of Western Civ I	3
HIST	107	History of Western Civ II	3
HIST	210N	Montana History	3
PSY	101	General Psychology	3
PSY	109	Lifespan Development	3
SOC	111	Introduction to Sociology	3
SOC	115	Survey of Criminal Justice	3
POLS	206	U.S. Government	3

### CULTURAL DIVERSITY – 3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3
BUS	249	Global Marketing	3
ENGL	214N	Literature of the West	3
HUM	244	American Cultural Values	3
ML	121	Intro to American Sign Lang	3
NAS	201N	Montana's American Indians	3
NAS	215N	Native American Religious Trad	3

### CULTURAL HERITAGE OF AMERICAN INDIANS – 3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

### II. COMPUTER INFORMATION SYSTEMS CORE REQUIREMENTS (15 CREDITS)

Course	No.	Title	Credits
CIT	111	Intro to Computers for Tech Majors	3†
CIT	160*	Introduction to Programming	3†
CIT	205*	Database Management	3†
CIT	220*	Electronic Spreadsheets	3†
CIT	229*	Web Page Construction	3†
ENGL	122*	Composition II	3†

### III. COMPUTER INFORMATION SYSTEMS ELECTIVES (14 CREDITS)

Students may choose from the following courses to complete their elective requirements:

Course	No.	Title	Credits
CIT	120	Internet Essentials	2†
CIT	126*	Networking Fundamentals	3†
CIT	166*	Computer Operating Systems	4†
CIT	176*	Intro to Router Technology	3†
CIT	206*	Database Management II	3†
CIT	210*	Network Operating Systems I	2†
CIT	211*	Network Operating Systems II	2†
CIT	226*	Switching Basics and Intermediate Routing	3†
CIT	231*	Web Page Design	3†
CIT	272*	PC Troubleshooting & Maint.	4†
CIT	275*	Computer End-User Support	3†
CIT	276*	WAN Technologies	3†
OO	266*	Microsoft Word	3†

### TOTAL CREDITS – 60

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## THIS PROGRAM OF STUDY IS DESIGNED FOR STUDENTS PLANNING TO APPLY TO THE MSU BOZEMAN BSN NURSING PROGRAM

This program of study is designed for students planning to apply to the MSU Bozeman BSN Nursing program. Students must earn a grade of 'C' or better in each of the courses with no more than one repeat per course. Students must apply to Montana State University Bozeman's College of Nursing and go through the placement process. Students apply prior to the end of their freshman year. The deadline for applications is April 30<sup>th</sup> of each year.

**THE INFORMATION ON ALL TRANSFER OPTIONS IS SUBJECT TO CHANGE. STUDENTS SHOULD CONTACT: MSU Bozeman College of Nursing, Great Falls Campus at (406) 771-4451 or the main campus at 406-994-3783.**

### I. MONTANA UNIVERSITY SYSTEM CORE – 32 CREDIT

#### COMMUNICATION – 6 CREDITS

(Need 3 writing and 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I AND 1 of the following	3
COMM	130	Public Speaking	3
COMM	135	Interpersonal Communication	3

#### MATHEMATICS – 4 CREDITS

Course	No.	Title	Credits
MATH	216**	Basic Statistics	4

#### HUMANITIES – 3 CREDITS

Course	No.	Title	Credits
ENGL	114	Intro to Literature	3
ENGL	210*	World Literature I	3
ENGL	211*	World Literature II	3
ENGL	217	Creative Writing	3
HUM	242	Gender & Equality	3
PHIL	101	Introduction to Philosophy	3
PHIL	232	Basic Ethics	3

#### FINE ARTS – 3 CREDITS

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
DE	161	Introduction to Design	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3

#### NATURAL SCIENCE – 7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	205	Personal Nutrition	3
<b>AND</b>			
CHM	111*	Inorganic Chemistry/Lab	4

#### SOCIAL SCIENCES/HISTORY – 6 CREDITS

Course	No.	Title	Credits
PSY	101	General Psychology	3
PSY	109	Lifespan Development	3

#### CULTURAL DIVERSITY – 3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3
BUS	249	Global Marketing	3
ENGL	214N	Literature of the West	3
HUM	244	American Cultural Values	3
ML	121	Intro to American Sign Lang	3
NAS	201N	Montana's American Indians	3
NAS	215N	Native American Religious Trad	3

#### CULTURAL HERITAGE OF AMERICAN INDIANS – 3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

### II. ADDITIONAL REQUIRED COURSES – 19 CREDITS

Course	No.	Title	Credits
BIO	213**	Anatomy & Physiology I/Lab	4
BIO	214*	Anatomy & Physiology II/Lab	4
BIO	280*	Microbiology & Comm Diseases	4
CHM	112*	Organic and Biochemistry/Lab	4
SOC	111	Introduction to Sociology	3

**A student must complete CHM 111 prior to, or concurrently with, Anatomy & Physiology I.**

**If you are interested in completing an Associate of Science with MSU – Great Falls College of Technology, please contact your program advisor to determine the additional courses needed.**

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## THIS PROGRAM OF STUDY IS DESIGNED FOR STUDENTS PLANNING TO APPLY TO THE UM-WESTERN BUSINESS PROGRAM

Students may begin pursuit of a baccalaureate degree from UM-Western by following the articulated plan of study below. By completing the plan of study, students can move directly into UM-Western's Business program.

**THE INFORMATION ON ALL TRANSFER PROGRAMS IS SUBJECT TO CHANGE. STUDENTS SHOULD CONTACT DENISE HOLLAND AT UM-WESTERN FOR POTENTIAL CHANGES: 406-683-7203, d\_holland@umwestern.edu**

### I. MONTANA UNIVERSITY SYSTEM CORE – 32 CREDIT

#### COMMUNICATION – 6 CREDITS

(Need 3 writing and 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I <b>AND</b>	3
COMM	130	Public Speaking	3

#### MATHEMATICS – 4 CREDITS

Course	No.	Title	Credits
MATH	216**	Basic Statistics	4

#### HUMANITIES/FINE ARTS – 6 CREDITS

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
DE	161	Introduction to Design	3
ENGL	114	Intro to Literature	3
ENGL	210*	World Literature I	3
ENGL	211*	World Literature II	3
ENGL	217	Creative Writing	3
HUM	242	Gender & Equality	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3
PHIL	101	Introduction to Philosophy	3
PHIL	232	Basic Ethics	3

#### NATURAL SCIENCE – 7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103**	Introduction to Biology/Lab	4
BIO	107**	Fund of Human Biology/Lab	4
BIO	151*	Molecular & Cellular Biology/Lab	4
BIO	152	Organismal Biology/Lab	4
BIO	205	Personal Nutrition	3
CHM	111*	Inorganic Chemistry/Lab	4
CHM	131*	General Chemistry I	4
CHM	132*	General Chemistry II	4
GEOG	101	Introduction to Geology	4
PHYS	110	Survey of Natural Sciences	3
PHYS	130	Fund Physical Science with Lab	4

#### SOCIAL SCIENCES/HISTORY – 6 CREDITS

Course	No.	Title	Credits
HIST	103N	History of the U.S. I	3
HIST	104N	History of the U.S. II	3
HIST	106	History of Western Civ I	3
HIST	107	History of Western Civ II	3
HIST	210N	Montana History	3
PSY	101	General Psychology	3
PSY	109	Lifespan Development	3
SOC	111	Introduction to Sociology	3
SOC	115	Survey of Criminal Justice	3
POLS	206	U.S. Government	3

#### CULTURAL DIVERSITY – 3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3
BUS	249	Global Marketing	3
ENGL	214N	Literature of the West	3
HUM	244	American Cultural Values	3
ML	121	Intro to American Sign Lang	3
NAS	201N	Montana's American Indians	3
NAS	215N	Native American Religious Trad	3

#### CULTURAL HERITAGE OF AMERICAN INDIANS – 3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

### II. PROGRAM OF STUDY IN BUSINESS - 27 CREDITS

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3
ACCT	102*	Accounting Procedures II	3
ACCT	221*	Financial Accounting	3
ACCT	222*	Managerial Accounting	3
BUS	106	Introduction to Business	3
BUS	255*	Legal Environment	3
CIT	110	Introduction to Computers	3
ECON	102	Economics I (Macro)	3
ECON	201	Economics II (Micro)	3
		Electives (any BUS or CIT Class)	2

#### TOTAL PROGRAM CREDIT - 59 ~

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



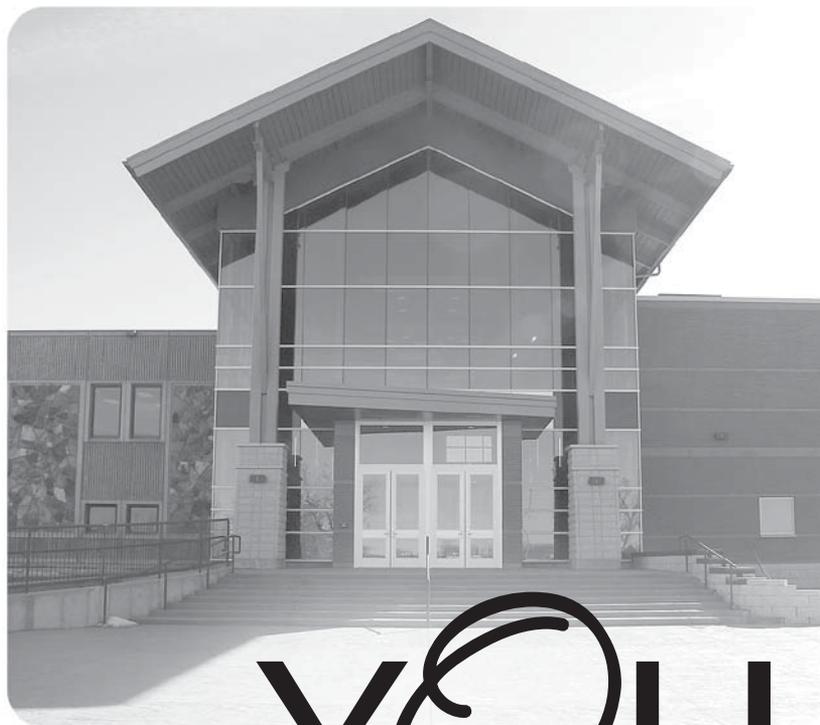


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## ARTICULATION AGREEMENTS

MSU-Great Falls College of Technology has a number of articulation agreements with Montana public and private colleges and universities. These agreements make it possible for students to plan a program of study that begins with an associate degree at MSU-Great Falls College of Technology and leads to a four-year degree from a college or university. These agreements are designed to maximize the number of credits students will be able to transfer and to minimize students' time to degree. Areas of concern such as admissions, financial aid, course requirements, and contact information are clearly discussed.

Articulation agreements are made with specific programs at the four-year colleges and universities. Each agreement specifies how coursework in the associate degree program applies to the baccalaureate degree program at the four-year college or university. Each agreement outlines the appropriate and recommended courses to complete at MSU-Great Falls College of Technology and also specify courses that must be taken at the four-year college or university to complete the program. Any deviation from the articulation agreement will nullify the guarantee they provide.

Students interested in attending MSU-Great Falls College of Technology and utilizing an articulation agreement listed in the catalog are encouraged to indicate their interest in one of the articulation agreements to their First Semester Advising Team or Academic Advisor prior to or during their first term in attendance.



## ASSOCIATE OF APPLIED SCIENCE DEGREE IN BUSINESS MANAGEMENT / ENTREPRENEURSHIP

### TRANSFER TO MSU-NORTHERN – BUSINESS ADMINISTRATION WITH A MINOR IN SMALL BUSINESS MANAGEMENT

Completion of an Associate of Applied Science Degree in Business Management/ Entrepreneurship allows for students interested in a baccalaureate degree in Business Administration with a minor in Small Business Management to transfer to Montana State University-Northern.

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3†
ACCT	102*	Accounting Procedures II	3†
ACCT	190*	Payroll Accounting	3†
ACCT	221*	Financial Accounting	3†
ACCT	222*	Managerial Accounting	3†
BUS	106	Introduction to Business	3†
BUS	230*	Management	3†
BUS	235*	Marketing	3†
BUS	255*	Legal Environment	3†
BUS	240*	Advertising	3†
BUS	260*	Entrepreneurship	3†
CIT	110	Introduction to Computers	3†
CIT	120	Internet Essentials	2†
CIT	220*	Electronic Spreadsheets	3†
COMM	135	Interpersonal Communication	3†
ENGL	121**	Composition I	3†
ENGL	228*	Strategies of Business Comm	3†
MATH	104**	Business Math	4†
MATH	130**	Precalculus Algebra	4†
OO	220	Preparing Resumes <b>OR</b>	
OO	221	Interviewing for Jobs	1†
		Electives	6†

### TOTAL PROGRAM CREDITS – 65

~Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## OUTLINE FOR COMPLETION OF BACHELOR OF SCIENCE DEGREE IN BUSINESS ADMINISTRATION & SMALL BUSINESS MANAGEMENT FROM MSU – NORTHERN

### I. TECHNICAL REQUIREMENTS - 33 CREDITS

Course	No.	Title	Credits
BUS	300	Management in Organizations	3
BUS	332	Human Resource Management	3
BUS	335	Principles of Marketing	3
BUS	341	Advanced Marketing Applications	3
BUS	350	Financial Management	3
BUS	380	Operations Management	3
BUS	405	Ethics in Management & Technology	3
BUS	406	Management Information Systems	3
BUS	410	International Business	3
BUS	430	Senior Project	3
ECON	241	Microeconomics	3

### II. MINOR - 9 CREDITS

Course	No.	Title	Credits
BUS	300	Management in Organizations	3
SBM	338	Promotion	3
SBM	402	Small Business Management	3
SBM	416	New Venture Development	3

### III. GENERAL EDUCATION REQUIREMENTS - 21 CREDITS

Category	Requirements
Category III	Natural Sciences w/ lab: AG 204, BIOL, CHEM, ESCI, GSCI, NSCI, PHYS, TSCI 110, TSCI 230, TSCI 304, TSCI 320 (6 credits)
Category IV	Social Sciences: CMSV 101, ECON 241, 242, 346, POL 134, 235, 303, PSYC 101, 205, 315, SOC 101, 240, SOSC 201 (3 credits)
Category V	History: HIST 131, 132, 141, 142, 216, 374 (3 credits)
Category VI	Cultural Diversity: NAS 105, 106, 220, 310, 330, 331, 350, 364, NURS 331, SOC 315, SPAN 105, 106 (3 credits)
Category VII	Fine Arts: ART 115, 120, 150, 151, 204, 353, 361, 362, DRMA 109, ENGL 311, GDSN 270, MUS 110 (3 credits)
Category VIII	Humanities: ART 100, ENGL 114, 201, 202, 214, 221, 222, 309, 310, 330, 385, HUM 201, MUS 101, PHIL 200, 210 (3 credits)

TOTAL TECHNICAL REQUIREMENTS	30
MINOR	9
TRANSFERRED BLOCK	65
GENERAL EDUCATION	<u>21</u>
<b>TOTAL CREDITS</b>	<b>125</b>

## ASSOCIATE OF APPLIED SCIENCE DEGREE IN DESIGN DRAFTING TECHNOLOGY

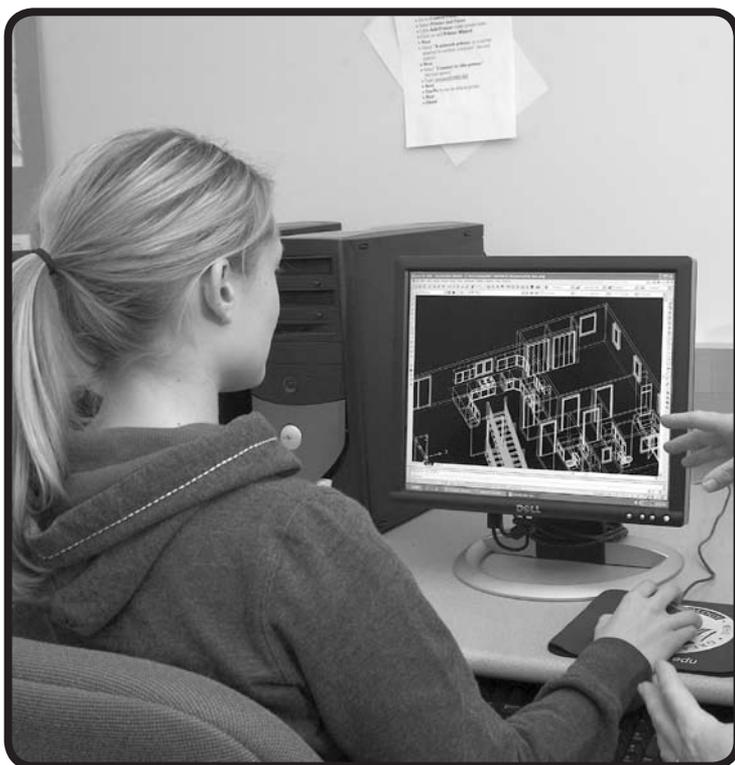
### TRANSFER TO MSU-NORTHERN – DESIGN DRAFTING TECHNOLOGY

Completion of the Associate of Applied Science degree in Design Drafting Technology allows for students interested in a baccalaureate degree in Design Drafting Technology to transfer to Montana State University-Northern.

Course	No.	Title	Credits
CET	173	Arch Construction & Materials	3
CIT	110	Intro to Computers	3
CIT	205*	Database Management I	3
COMM	135	Interpersonal Communication	3
DRFT	131	Technical Graphics I	4
DRFT	132*	Descriptive Geometry	3
DRFT	156	Introduction to CAD	3
DRFT	201*	Residential Drafting	3
DRFT	205*	Machine Drafting	3
DRFT	242	Blueprint Reading & Materials	3
DRFT	244*	Topographical Mapping & GIS Applications	3
DRFT	246	Managing the Construction Process	3
DRFT	256*	3D CAD	3
EET	110	Electronics Survey	3
ENGL	121**	Composition I	3
MATH	130**	Precalculus Algebra	4
MATH	131**	Precalculus Trigonometry	3
MFGT	205	Manufacturing Processes	3
PHYS	130	Fund of Physical Science with Lab	4
		Drafting Elective	3

### TOTAL PROGRAM CREDITS – 63~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## OUTLINE FOR COMPLETION OF BACHELOR OF SCIENCE DEGREE IN DESIGN DRAFTING TECHNOLOGY FROM MSU - NORTHERN

### I. TECHNICAL REQUIREMENTS - 53 CREDITS

Course	No.	Title	Credits
DRFT	316	Industrial CAD Modeling	3
DRFT	336	Process Piping	3
DRFT	356	CAD Presentation	4
DRFT	409	Industrial Product Design	3
DRFT	428	Technical Illustration	3
DRFT	456	CAD Presentation II	3
DRFT	457	Architectural CAD	3
ENGL	112	Written Communication II	3
ENGL	366	Technical Writing and Editing	3
METL	155	Machining Processes	3
MFGT	341	CAD/CAM Applications	3
MFGT	342	CAD/CAM II	3
MFGT	427	Quality Assurance	3
		Electives (must be Upper Division 300/400)	6
		CAT III & V General Education (Drafting Tech Track)	7

### II. GENERAL EDUCATION REQUIREMENTS - 12 CREDITS

<b>Category IV</b>	Social Sciences: Please see Drafting Advisor for courses due to ABET accreditation (3 credits)
<b>Category VI</b>	Cultural Diversity: NAS 105, 106, 220, 310, 330, 331, 350, 364, NURS 331, SOC 315, SPAN 105, 106 (3 credits)
<b>Category VII</b>	Fine Arts: ART 115, 120, 150, 151, 204, 353, 361, 362, DRMA 109, ENGL 311, GDSN 270, MUS 110 (3 credits)
<b>Category VIII</b>	Humanities: ART 100, ENGL 114, 201, 202, 214, 221, 222, 309, 310, 330, 385, HUM 201, MUS 101, PHIL 200, 210 (3 credits)

TOTAL TECHNICAL REQUIREMENTS	53
TRANSFERRED BLOCK	63
GENERAL EDUCATION	<u>12</u>
<b>TOTAL CREDITS</b>	<b>128</b>



## ASSOCIATE OF ARTS DEGREE WITH ELEMENTARY EDUCATION

### TRANSFER TO MSU-NORTHERN – ELEMENTARY EDUCATION

The Associate of Arts with articulated coursework in Elementary Education is designed for students interested in a baccalaureate degree in Elementary Education at Montana State University-Northern.

#### I. MONTANA UNIVERSITY SYSTEM CORE – 32/33 SEMESTER HOURS

##### COMMUNICATION – 6 CREDITS

(Need 3 writing and 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I	3
COMM	135	Interpersonal Communication	3

##### MATHEMATICS – 3 CREDITS

Course	No.	Title	Credits
MATH	161**	College Algebra w/ Science App	3
MATH	130**	Pre-Calculus Algebra	4

##### HUMANITIES/FINE ARTS – 6 CREDITS

Course	No.	Title	Credits
ENGL	114	Intro to Literature	3
<b>AND 1 of the following</b>			
ART	101	Intro to Visual Arts	3
MUS	102	Fundamentals of Music	3

##### NATURAL SCIENCE – 8 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103**	Introduction to Biology/Lab	4
PHYS	130	Fund Physical Science with Lab	4

##### SOCIAL SCIENCES/ HISTORY – 6 CREDITS

Course	No.	Title	Credits
HIST	210N	Montana History	3
PSY	109	Lifespan Development	3

##### CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
NAS	201N	Montana's American Indians	3

##### CULTURAL HERITAGE OF AMERICAN INDIANS – 3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

##### II. COMPUTER SKILLS/USAGE – 3 CREDITS

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3
CIT	111	Intro to Computers for Tech Majors	3

or any CIT 3 credit hour course that has CIT 110 as a prerequisite

##### III. CONCENTRATION IN ELEMENTARY EDUCATION – 25 CREDITS

Course	No.	Title	Credits
EDUC	201	Intro to the Education Experience	3
MATH	120**	Math for Elementary Teachers	3
ENGL	122	Composition II	3
HHD	106	Drug & Health Issues for Education	3
EDUC	240*	Instructional Technology	3
EDPY	220	Educational Psychology	3
AH	116	First Aid & CPR	1
		Electives	6

##### TOTAL PROGRAM CREDITS – 60/61

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## OUTLINE FOR COMPLETION OF BACHELOR OF SCIENCE DEGREE IN ELEMENTARY EDUCATION FROM MSU – NORTHERN

Course	No.	Title	Credits
EDPY	350	Educational Psych of the Exceptional Child	3
EDUC	300	Intro to Curriculum Planning and Practice	3
EDUC	351	Diversity and Technology	3
EDUC	353	Health Enhancement for Elementary Teachers	2
EDUC	376	Assessment in Education	3
EDUC	380	Classroom Environment and Management	3
EDUC	302	Methods of Teaching Elementary Mathematics	2
EDUC	304	Methods of Teaching Elementary Science	2
EDUC	306	Methods of Teaching Elementary Social Studies	2
EDUC	310	Methods of Teaching Integrated Creative Arts	2
EDUC	334	Methods of Teaching Integrated Language Arts	3
EDUC	336	Integrated Field Experience	1-3
EDUC	335	Fundamental and Corrective Strategies in Reading	3
EDUC	430	Integrating Contact Across the Curriculum	2
EDUC	455	Advanced Practicum in Education	3
EDUC	448	Reading Materials for the Elementary Child	2
EDUC	400	Elementary Teaching Practicum and Seminar 6 or 12	
<b>OR</b>			
EDUC	475	Elementary and Secondary Teaching Practicum and Seminar	6 or 12 38-46
ELECTIVES/MINORS/CONCENTRATIONS			22-30

## ASSOCIATE OF APPLIED SCIENCE DEGREE IN COMPUTER INFORMATION TECHNOLOGY MICROCOMPUTER SUPPORT

### TRANSFER TO MSU-NORTHERN – COMPUTER INFORMATION SYSTEMS

Completion of the Associate of Applied Science degree in Microcomputer Support allows for students interested in a baccalaureate degree in Computer Information Systems to transfer to Montana State University-Northern.

Course	No.	Title	Credits
BUS	106	Introduction to Business	3†
CIT	111	Intro to Comp for Tech Majors	3†
CIT	120	Internet Essentials	2†
CIT	160*	Introduction to Programming	3†
CIT	166*	Computer Operating Systems	4†
CIT	205*	Database Management	3†
CIT	220*	Electronic Spreadsheets	3†
CIT	229*	Web Page Construction	3†
CIT	272*	PC Troubleshooting and Maint	4†
CIT	275*	Computer End-User Support	3†
COMM	135	Interpersonal Communication	3†
ENGL	121**	Composition I	3†
ENGL	122*	Composition II <b>OR</b>	
MATH	104**	Business Mathematics	4†
MATH	130**	Precalculus Algebra <b>OR</b>	
MATH	150**	Math for Liberal Arts <b>OR</b>	
MATH	181**	Calculus	3/4†
OO	266*	Microsoft Word	4†
		Technical Electives	

### TOTAL PROGRAM CREDITS – 60-61~

~ Many students need preliminary math and English courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.



## OUTLINE FOR COMPLETION OF BACHELOR OF SCIENCE DEGREE IN COMPUTER INFORMATION SYSTEMS FROM MSU – NORTHERN

### I. TECHNICAL REQUIREMENTS - 27 CREDITS

Course	No.	Title	Credits
ACCT	261	Principles of Accounting I	3
CIS	155	Java Programming	3
CIS	270	Systems Analysis and Design	3
ENGL	366	Technical Writing and Editing	3
ISET	300	Operating Systems Introduction	3
ISET	350	Advanced Java Programming	3
ISET	410	Enterprise Resources Planning	3
ISET	471	Information System Engineering	3
		Upper Division Elective (must be 300/400 level)	3

### II. TAKE TWO (2) OF THE FOLLOWING THREE AREAS – 24 CREDITS

#### HARDWARE CLUSTER (12 CREDITS)

#### NETWORKING CLUSTER (12 CREDITS)

#### SOFTWARE CLUSTER (12 CREDITS)

### III. GENERAL EDUCATION REQUIREMENTS - 21 CREDITS

<b>Category III</b>	Natural Sciences w/ lab: AG 204, BIOL, CHEM, ESCI, GSCI, NSCI, PHYS, TSCI 110, TSCI 230, TSCI 304, TSCI 320 (6 credits)
<b>Category IV</b>	Social Sciences: CMSV 101, ECON 241, 242, 346, POL 134, 235, 303, PSYC 101, 205, 315, SOC 101, 240, SOSOC 201 (3 credits)
<b>Category V</b>	History: HIST 131, 132, 141, 142, 216, 374 (3 credits)
<b>Category VI</b>	Cultural Diversity: NAS 105, 106, 220, 310, 330, 331, 350, 364, NURS 331, SOC 315, SPAN 105, 106 (3 credits)
<b>Category VII</b>	Fine Arts: ART 115, 120, 150, 151, 204, 353, 361, 362, DRMA 109, ENGL 311, GDSN 270, MUS 110 (3 credits)
<b>Category VIII</b>	Humanities: ART 100, ENGL 114, 201, 202, 214, 221, 222, 309, 310, 330, 385, HUM 201, MUS 101, PHIL 200, 210 (3 credits)

TOTAL TECHNICAL REQUIREMENTS	27
CLUSTER AREAS	24
TRANSFERRED BLOCK	60/61
GENERAL EDUCATION	<u>21</u>
<b>TOTAL CREDITS</b>	<b>132/133</b>

# YOUR Choices - TRANSFER

## ASSOCIATE OF ARTS DEGREE WITH ACCOUNTING COURSEWORK

### TRANSFER TO THE UNIVERSITY OF GREAT FALLS

The Associate of Arts with articulated coursework in Accounting is designed for students interested in a baccalaureate degree in Accounting at the University of Great Falls.

#### I. MUS CORE – 32 SEMESTER HOURS

##### COMMUNICATION--6 CREDITS

(Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I	3
		<b>AND</b>	
COMM	130	Public Speaking	3

##### MATHEMATICS--4 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4

##### HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits
PHIL	232	Basic Ethics	3
		<b>AND</b>	
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3

##### NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	205	Personal Nutrition	3
		<b>AND</b>	
BIO	103**	Introduction to Biology/Lab	4
BIO	107**	Fund of Human Biology/Lab	4
CHM	111*	Inorganic Chemistry/Lab	4
GEOL	101	Introduction to Geology	4
PHYS	130	Fund Physical Science w/Lab	4

##### SOCIAL SCIENCES/ HISTORY --6 CREDITS

Course	No.	Title	Credits
HIST	106	History of Western Civ I	3
HIST	107	History of Western Civ II	3

##### CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ENGL	214N	Literature of the West	3

##### CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

#### II. COMPUTER SKILLS/USAGE - 3 CREDITS

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3

#### III. CONCENTRATION IN ARTS, HUMANITIES, AND SOCIAL SCIENCES – 9 CREDITS

Course	No.	Title	Credits
SOC	110	Introduction to Sociology <b>OR</b>	
PSY	101	General Psychology	3
		<b>AND</b>	
ENGL	122***	Composition II	3
		<b>AND</b>	
ECON	102	Macroeconomics <b>OR</b>	
ECON	201	Microeconomics	3

\*\*\*Must pass COMPASS writing exam with 85% or better

#### IV. ARTICULATION COURSEWORK – 16 CREDITS

Any of the Following:

Course	No.	Title	Credits
CIT	220*	Electronic Spreadsheets	3
ACCT	101	Accounting Procedures I	3
ACCT	102*	Accounting Procedures II	3
ACCT	221*	Financial Accounting	3
ACCT	222*	Managerial Accounting	3
BUS	106	Introduction to Business	3
BUS	230*	Management	3
BUS	255*	Legal Environment	3

#### TOTAL PROGRAM CREDITS – 60

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## OUTLINE FOR COMPLETION OF BACHELOR OF SCIENCE IN ACCOUNTING FROM THE UNIVERSITY OF GREAT FALLS

#### I. UGF CORE – 6 CREDITS

##### LIVING AND MAKING A LIVING

(Need 3 upper division writing credits)

Course	No.	Title	Credits
ENG	312*	Writing for Bus & Professions	3

\*Must earn a grade of 'B' or higher for major

##### RELIGIOUS DIMENSION--3 CREDITS

Course	No.	Title	Credits
TRL	200	Fund of Christian Theology	3
TRL	210	Catholicism	3
TRL	240	Reading the Old Testament	3
TRL	250	Reading the New Testament	3
TRL	303	Jesus the Christ	3

#### II. ACCOUNTING MAJOR

\*\*Credits & courses dependent upon articulation courses taken at MSUGF

Course	No.	Title	Credits
ACC	201	Principles of Financial Acct	3
ACC	202	Principles of Managerial Acct	3
ACC	371	Intermediate Financial Acct I	3
ACC	372	Intermediate Financial Acct II	3
ACC	380	Principles of Cost Management	3
ACC	422	Principles of Attestation & Audit	3
ACC	425	Advanced Financial Acct I	3
ACC	441	Principles of Federal Tax – Indiv	3
BUS	240	Management & Leadership	3
BUS	335	Commercial Law	3
ECN	201	Macroeconomics	
		<b>OR</b>	
ECN	202	Microeconomics	3

#### III. MINOR / CONCENTRATION FULFILLED WITH A.A. DEGREE FROM MSU-GF

#### IV. TOTAL CREDITS TOWARD DEGREE:

60 CREDITS (AA – MSUGF)

33 CREDITS (BS – UGF)

6 CREDITS (CORE – UGF)

29 CREDITS (ELECTIVE)

**128 TOTAL CREDITS**

## ASSOCIATE OF ARTS DEGREE WITH BUSINESS COURSEWORK TRANSFER TO UNIVERSITY OF GREAT FALLS

The Associate of Arts with articulated coursework in Business is designed for students interested in a baccalaureate degree in Business Administration at the University of Great Falls.

### I. MUS CORE – 32 SEMESTER HOURS

#### COMMUNICATION--6 CREDITS

(Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I	3
		<b>AND</b>	
COMM	130	Public Speaking	3

#### MATHEMATICS--4 CREDITS

Course	No.	Title	Credits
MATH	216**	Basic Statistics	4

#### HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits
PHIL	232	Basic Ethics	3
		<b>AND</b>	
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3

#### NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	205	Personal Nutrition	3
		<b>AND</b>	
BIO	103**	Introduction to Biology/Lab	4
BIO	107**	Fund of Human Biology/Lab	4
CHM	111*	Inorganic Chemistry/Lab	4
GEOL	101	Introduction to Geology	4
PHYS	130	Fund Physical Science with Lab	4

#### SOCIAL SCIENCES/ HISTORY --6 CREDITS

Course	No.	Title	Credits
HIST	106	History of Western Civ I	3
HIST	107	History of Western Civ II	3

#### CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ENGL	214N	Literature of the West	3

#### CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

### II. COMPUTER SKILLS/USAGE - 3 CREDITS

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3

### III. CONCENTRATION IN ARTS, HUMANITIES, AND SOCIAL SCIENCES – 9 CREDITS

Course	No.	Title	Credits
SOC	110	Introduction to Sociology	3
PSY	101	General Psychology	3
		<b>AND</b>	
ENGL	122***	Composition II	3
		<b>AND</b>	
ECON	102	Macroeconomics	3
ECON	201	Microeconomics	3

\*\*\*Must pass COMPASS writing exam with 85% or better

### IV. ARTICULATION COURSEWORK – 16 CREDITS

#### ANY OF THE FOLLOWING:

Course	No.	Title	Credits
MATH	217*	Intermediate Statistics	3
CIT	220*	Electronic Spreadsheets	3
ACCT	101	Accounting Procedures I	3
ACCT	102*	Accounting Procedures II	3
ACCT	221*	Financial Accounting	3
ACCT	222*	Managerial Accounting	3
BUS	106	Introduction to Business	3
BUS	230*	Management	3
BUS	235*	Marketing	3
BUS	255*	Legal Environment	3

#### TOTAL PROGRAM CREDITS – 60

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## OUTLINE FOR COMPLETION OF BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION FROM THE UNIVERSITY OF GREAT FALLS

### I. UGF CORE – 6 CREDITS

#### LIVING AND MAKING A LIVING

(Need 3 upper division writing credits)

Course	No.	Title	Credits
ENG	312	Writing for Bus & Professions	3

Must earn a grade of 'B' or higher for major

#### RELIGIOUS DIMENSION--3 CREDITS

Course	No.	Title	Credits
TRL	200	Fund of Christian Theology	3
TRL	210	Catholicism	3
TRL	240	Reading the Old Testament	3
TRL	250	Reading the New Testament	3
TRL	303	Jesus the Christ	3

### II. BUSINESS ADMINISTRATION MAJOR

Credits & courses dependent upon articulation courses taken at MSUGF

Course	No.	Title	Credits
BUS	201	The Art of Thinking	3
BUS	240	Management & Leadership	3
BUS	260	Marketing	3
BUS	335	Commercial Law	3
BUS	345	SIFE (3 terms/1 credit each)	3
BUS	400	Financial Analysis	3
BUS	401	The Art of Leadership	3
BUS	496	Commerce Integration	3
BUS	345	SIFE (3 terms of 1 credit)	3
BUS	497	Career Related Field Experience	3
COM	301	The Art of Communication	3
ECN	201	Macroeconomics	OR
ECN	202	Microeconomics	3
MTH	205	Elementary Prob & Stats	OR
SCS	312♦	Social Research Methods	3
		Business Related Approved Electives	6

♦ This course is highly recommended although not required if student has completed MTH 217 at MSU-GF.

### III. MINOR/CONCENTRATION FULFILLED WITH A.A. FROM MSU-GF

#### IV. TOTAL CREDITS TOWARD DEGREE:

60 CREDITS (AA – MSUGF)  
 48-49 CREDITS (BS – UGF)  
 6 CREDITS (CORE – UGF)  
14-15 CREDITS (ELECTIVE)  
**128 TOTAL CREDITS**

# YOUR Choices - TRANSFER

## MONTANA UNIVERSITY SYSTEM CORE TRANSFER TO THE UNIVERSITY OF GREAT FALLS UNIVERSITY CORE

The MUS Core transfer is designed for students interested in completing the University Core Curriculum at the University of Great Falls.

### COMMUNICATION--6 CREDITS

(Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I	3
<b>AND</b>			
COMM	130	Public Speaking	3

### MATHEMATICS--4 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4

### HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits
PHIL	232	Basic Ethics	3
<b>AND</b>			
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3

### NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	205	Personal Nutrition	3
<b>AND</b>			
BIO	103**	Introduction to Biology/Lab	4
BIO	107**	Fund of Human Biology/Lab	4
CHM	111*	Inorganic Chemistry/Lab	4
GEOL	101	Introduction to Geology	4
PHYS	130	Fund Physical Science with Lab	4

### SOCIAL SCIENCES/ HISTORY --6 CREDITS

Course	No.	Title	Credits
HIST	106	History of Western Civ I	3
HIST	107	History of Western Civ II	3
PSY	101	General Psychology <b>OR</b>	
SOC	111	Introduction to Sociology	3

### CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ENGL	214N	Literature of the West	3

### CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

### TOTAL CREDITS – 32

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## OUTLINE FOR COMPLETION OF THE UNIVERSITY CORE CURRICULUM FROM THE UNIVERSITY OF GREAT FALLS

### I. UGF CORE – 15 CREDITS

#### INTELLECTUAL INQUIRY - 3 CREDITS

*courses dependent upon articulation courses taken at MSUGF*

Course	No.	Title	Credits
SOC	101	Introduction to Sociology	3
HST	101	History of Civilization I <b>OR</b>	
HST	102	History of Civilization II	3

#### LIVING AND MAKING A LIVING - 9 CREDITS

Course	No.	Title	Credits
ENG	117	Writing Essays	3
ENG	300-319	Upper level writing course	3
CPS	100	Intro to the Microcomputer	1
CPS	101	Intro to UGNet	1
CPS	102	Intro to Powerpoint	1

#### RELIGIOUS DIMENSION – 3 CREDITS

Course	No.	Title	Credits
TRL	200	Fund of Christian Theology	3
TRL	210	Catholicism	3
TRL	240	Reading the Old Testament	3
TRL	250	Reading the New Testament	3
TRL	303	Jesus the Christ	3



## ASSOCIATE OF ARTS DEGREE WITH EDUCATION COURSEWORK TRANSFER TO THE UNIVERSITY OF GREAT FALLS

The Associate of Arts with articulated coursework in Education is designed for students interested in a baccalaureate degree in Secondary Education at the University of Great Falls.

### I. MUS CORE – 32 SEMESTER HOURS

#### COMMUNICATION--6 CREDITS

(Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits
ENGL	121**	Composition I <b>AND</b>	3
COMM	130	Public Speaking	3

#### MATHEMATICS--4 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4

#### HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits
PHIL	232	Basic Ethics <b>AND</b>	3
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3

#### NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	205	Personal Nutrition <b>AND</b>	4
BIO	103**	Introduction to Biology/Lab	4
BIO	107**	Fund of Human Biology/Lab	4
CHM	111*	Inorganic Chemistry/Lab	4
GEOL	101	Introduction to Geology	4
PHYS	130	Fund Physical Science with Lab	4

#### SOCIAL SCIENCES/ HISTORY --6 CREDITS

Course	No.	Title	Credits
HIST	106	History of Western Civ I	3
HIST	107	History of Western Civ II	3

#### CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ENGL	214N	Literature of the West	3

#### CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

Courses with an "N" behind the course title will fulfill the Cultural Heritage of American Indians requirement as well as a designated core area requirement.

### II. COMPUTER SKILLS/USAGE - 3 CREDITS

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3

### III. CONCENTRATION IN ARTS, HUMANITIES, AND SOCIAL SCIENCES – 9 CREDITS

Course	No.	Title	Credits
SOC	111	Introduction to Sociology <b>OR</b>	3
PSY	101	General Psychology <b>AND</b>	3
ENGL	122***	Composition II <b>AND</b>	3
EDPY	220	Educational Psychology	3

\*\*\*Must pass COMPASS writing exam with 85% or better

### IV. ARTICULATION COURSEWORK – 16 CREDITS

Course	No.	Title	Credits
EDUC	200	Intro to the Educ. Experience	3
EDUC	240*	Instructional Technology	3
EDUC	260	Multicultural Education	3
		Electives***	7

\*\*\*Please see your advisor in regard to elective credits that will transfer to an applicable major and/or minor at UGF

### TOTAL PROGRAM CREDITS – 60

~ Many students need preliminary math, English, and biology courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and English placement before planning out their full program schedules.

## OUTLINE FOR COMPLETION OF BACHELOR OF ARTS IN SECONDARY EDUCATION FROM THE UNIVERSITY OF GREAT FALLS

### I. UGF CORE – 6 CREDITS

#### LIVING AND MAKING A LIVING

(Need 3 upper division writing credits)

Course	No.	Title	Credits
ENG	300-319	Upper level writing course	3

#### RELIGIOUS DIMENSION--3 CREDITS

Course	No.	Title	Credits
TRL	200	Fund of Christian Theology	3
TRL	210	Catholicism	3
TRL	240	Reading the Old Testament	3
TRL	250	Reading the New Testament	3
TRL	303	Jesus the Christ	3

### II. SECONDARY EDUCATION MAJOR - 25 CREDITS

Course	No.	Title	Credits
EDU	261	Intro to Exceptionalities	3
EDU	315	Assessment of Learning	2
EDU	338	Teaching Reading – Content Area	2
EDU	430	Secondary Schl Teaching Proc	2
EDU	472	PPIE – Middle School	2
EDU	482	PPIE – High School	2
EDU	489	Elementary / Secondary Ed Intern	2
EDU	498	Secondary Internship	10
EDU	462♦	Pre-Prof Integ Experience ES	2

♦Secondary education students majoring or minoring in Art, HPE, or Special Education or completing the Reading Instruction concentration will receive a K-12 endorsement for that subject area and must therefore complete EDU 462 PPIE Elementary in lieu of EDU 472 PPIE Middle School.

### II. DUAL MAJOR NECESSARY FOR OBTAINING SECONDARY EDUCATION DEGREE FROM UGF

### III. MINOR NECESSARY FOR COMPLETION OF SECONDARY EDUCATION DEGREE FROM UGF

### IV. TOTAL CREDITS TOWARD DEGREE:

60 CREDITS (AA – MSUGF)

25 CREDITS (BS – UGF)

6 CREDITS (CORE – UGF)

REMAINING CREDITS (DUAL MAJOR AND MINOR)

**128 TOTAL CREDITS NECESSARY FOR GRADUATION**



dreams

future

college

community

Course DESCRIPTIONS



**YOU**  
that's what we're about



# YOUR College - COURSE DESCRIPTIONS

This section includes a brief description of each credit course offered on a regular basis by Montana State University - Great Falls College of Technology.

Each listing includes a course number, course title, number of credits awarded, prerequisites, co-requisites, term(s) offered, and course descriptions. The following letters are used to specify the term each course is offered:

F - Fall Semester    S - Spring Semester    SU - Summer Term

**Please Note: Courses scheduled for any term may be cancelled due to low enrollment.**

While the terms each course is offered are shown, students should consult the Schedule of Classes published prior to registration each term for the most up-to-date information on course offerings. Courses offered on "Sufficient Demand" are indicated as such in the course descriptions.

Consult the Programs and Transfer sections of this catalog and/or an advisor for specific information about each course and which courses meet program or transfer requirements.

Internships, Independent Studies, Credit-bearing and non-credit professional and continuing education (PCE) courses, Pilot courses, and Special Topics in each field of study are available as follows:

## --- 116 PCE TOPIC <INSERT SUBJECT AREA>

Credits: VARIES (Sufficient Demand)  
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcribed on the student's undergraduate transcript

## --- 199 PCE TOPIC <INSERT SUBJECT AREA>

Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcribed on the student's continuing education transcript.

## --- 200 SPECIAL TOPICS <INSERT SUBJECT AREA>

Credits: VARIES (Sufficient Demand)  
Special projects and independent studies are available for students by special arrangement with faculty and approved by Department Chairs. Such projects will generally be classified as advanced studies, and prerequisites may be individually required. The intent, nature, scope, and duration of the project will be determined by student/teacher collaboration. A student may earn no more than 12 credits through special projects or independent studies.

## --- 299 INTERNSHIP IN <INSERT DEGREE AREA NAME>

Credits: VARIES (Sufficient Demand)  
Prerequisite: Must be in final semester of degree area, consent of instructor, and approval of department chair.

An individualized assignment arranged with an agency, business, or other organization to provide a real-world, guided experience in the student's field of study or interest. For more information, or to set up an internship, talk to your program advisor.

## PILOT COURSES

Course being piloted by the College are given the number of 089, 189 or 289 until they become permanent courses. They can be variable credits depending upon the course and are taught based on sufficient demand.

## --- 089 PILOT COURSE <INSERT DEGREE AREA NAME>

## --- 189 PILOT COURSE <INSERT DEGREE AREA NAME>

## --- 289 PILOT COURSE <INSERT DEGREE AREA NAME>

**\*\*Please note that most MSU-Great Falls College of Technology courses require you to utilize advanced technology. Examples include online research, library usage, computer communication, electronic submission of assignments, online quizzes, etc.**

## Accounting (ACCT)

### ACCT 101 ACCOUNTING PROCEDURES I

Credits: 3 (F,S)  
Content of the course covers the complete accounting cycle including creating source documents, journalizing transactions, posting to ledgers, preparing worksheets and basic financial statements including the income statement and balance sheet, end-of-period closing activities, payroll and special journals for both service and merchandising businesses.

### ACCT 102 ACCOUNTING PROCEDURES II

Credits: 3 (F,S)  
Prerequisites: ACCT 101, CIT 110, MATH 104 or concurrent enrollment

This course is a continuation of Accounting Procedures I. Additional topics covered include notes payable and notes receivable, valuation of receivables and uncollectible accounts, valuation of inventories, plant assets and depreciation, partnership accounting, corporate organization, capital stock, worksheets, taxes, dividends, and corporate bonds, statement of cash flows and comparative financial statements.

### ACCT 190 PAYROLL ACCOUNTING

Credits: 3 (F,S)  
Prerequisites or Co requisites: ACCT 101, CIT 110, MATH 104

Students will become knowledgeable in the payroll records required to comply with various federal and state laws affecting payroll. The Federal Fair Labor Standards Act and the Montana Wage/Hour laws are studied. Students will develop skills in actual payroll preparation. Activities include computing gross salaries, social security, federal and state income tax deductions, journalizing payroll transactions, posting to ledgers and preparation of federal and state payroll tax returns, and reports.

### ACCT 221 FINANCIAL ACCOUNTING

Credits: 3 (F)  
Prerequisites: ACCT 102, MATH 108

This course is an introduction to financial accounting principles. Specific topics studied include generally accepted accounting principles and concepts, the accounting cycle, financial statement preparation, internal controls, cash, short-term investments, receivables, inventory, plant and intangible assets, current and long-term liabilities including present value concepts, corporations and stockholders equity, the statement of cash flows, and financial statement analysis.

### ACCT 222 MANAGERIAL ACCOUNTING

Credits: 3 (S)  
Prerequisite: ACCT 221

This course is an introduction to managerial accounting principles concerned with providing information to managers for use in planning and controlling operations and in decision making. Specific topics studied include manufacturing cost concepts for job and process cost accounting, service department cost allocation, cost-volume-profit analysis, master and flexible budgeting, standard costs and variance analysis, capital budgeting and relevant costs.

### ACCT 224 COMPUTERIZED ACCOUNTING

Credits: 3 (F)  
Prerequisites: ACCT 190, ACCT 221 or concurrent enrollment

Students will complete a variety of accounting projects using microcomputer accounting software.

## ACCT 231 INCOME TAX FUNDAMENTALS

Credits: 3 (S)  
Prerequisites: ACCT 190, ACCT 221

This course introduces students to the basic income taxation principles, concepts, and procedures of individuals, proprietorships, partnerships, and corporations.

## Allied Health (AH)

### AH 101 HEALTHCARE DELIVERY IN THE U.S.

Credits: 2 (F)  
This introductory course acquaints students with an overall view of the healthcare system. Topics include organization, financing, and delivery of healthcare through various types of facilities, agencies, health organizations, and hospitals. Medical ethics, professional behavior, and patient rights are also covered.

### AH 103 FUNDAMENTALS OF HEALTH OCCUPATIONS

Credits: 2 (F, S, SU based on sufficient demand)  
Students are introduced to the variety of professions in the healthcare industry and explore basic health care concepts and skills.

### AH 108 DISEASE CONCEPTS

Credits: 2 (F, S, SU)  
Prerequisites: BIO 107 or BIO 127

This course is designed to provide students in the Health Sciences field with foundational knowledge of the general mechanisms of disease, and the clinical manifestations of disease commonly seen in the health care environment. Disease processes specific to each body system are studied, and treatment interventions and prognosis discussed.

### AH 110 EXPLORING COMPLEMENTARY AND ALTERNATIVE MEDICINES

Credits: 2 (F, S, SU)  
This course examines the vast selection of therapeutic interventions known as alternative or complementary medicines being presented to today's consumers.

### AH 115 HEALTH CARE PERSONNEL AND SUPERVISION

Credits: 2 (S)  
Legal requirements, theories, and techniques for supervision at the first- and mid-management level are the topics of this course. Supervision processes, including communicating, organizing, directing, motivating, controlling, and evaluating are assessed for application in healthcare organizations through the use of case studies.

### AH 120 INTRAVENOUS THERAPY

Credits: 1 (F,S,SU Based on Sufficient Demand)  
Prerequisites: Students must be enrolled the last semester of the Practical Nurse program, or be enrolled in the second year of the Respiratory Care program, or obtain instructor approval.

Intravenous Therapy covers IV therapy principles including anatomy of the arm and hand with particular attention to the veins, IV equipment, IV solution flow rates calculation, infection control, potential complications and IV documentation. Each student will perform IV starts on a mannequin arm, and when proficient, initiate IVs on people.

## AH 125 FUNDAMENTALS OF FORENSIC SCIENCE

Credits: 2 (SU, Based on Sufficient Demand)

In Fundamentals of Forensic Science, students will examine the philosophical, rational and practical framework that supports a case investigation. The unifying principles of forensic science to the pure sciences will be examined, and students will be introduced to the unique ways in which a forensic scientist must think. Topics will include the experimental method and some of the ways in which a forensic analysis can be confounded. The various forensic science occupations will also be explored.

## AH 140 PHARMACOLOGY

Credits: 2 (F,S)  
Prerequisite: Successful completion of prerequisite courses for specific programs, or instructor approval.

This course reflects the ever-changing science of pharmacology and responsibilities in administering pharmacological agents. The purpose of this course is to promote safe and effective drug therapy by providing essential information that accurately reflects current practice in drug therapy and facilitating the comprehension and application of knowledge related to drug therapy. Application requires the knowledge about the drug and the patient receiving it. General principles of drug administration, terminology, drug regulation, standard references and legal responsibilities are included as well as major drug classifications and therapeutic implications.

## AH 145 INTRODUCTION TO MEDICAL TERMINOLOGY

Credits: 1 (F,S, SU)  
This course promotes knowledge of the elements of medical terminology for professional and personal development. Exercises in each unit will stress definitions, spelling, and pronunciation of medical words. The course is designed to build an understanding of the logical method used to form medical terms, including word analysis and word building.

## AH 150 FITNESS FOR LIFE

Credits: 2 (F,S)  
This course is designed to educate, support, and motivate individuals toward a life-long commitment to physical fitness including nutrition for health and weight management; establishing physical fitness goals; and planning for physical strength improvement and/or maintenance. Exercise laboratory experience allows students to apply physical fitness principles.

## AH 185 BASIC MEDICAL TERMINOLOGY

Credits: 3 (F, S, SU)  
The goals of this course are to promote knowledge of the elements of medical terminology for professional and personal development, the ability to spell and pronounce medical terms, an understanding of medical abbreviations, and an appreciation of the logical method found in medical terminology. This includes word analysis and word building. Knowledge of terms relating to body structures, positions, directions, divisions and planes will be required. An awareness of current health events is encouraged, as is knowledge of basic scientific and specialty areas in healthcare practice.



# YOUR College - COURSE DESCRIPTIONS

## AH 194 BASIC PHARMACEUTICALS

Credits: 1 (F, S, SU)

This course provides basic knowledge of the most commonly prescribed pharmaceuticals needed to analyze health care information for various health science support functions. Emphasis is on classification, indications, therapeutic effects, side effects, interactions, and contra-indications of new, current, and newly introduced applications of existing medications.

## AH 201 MEDICAL SCIENCE

Credits: 3 (F, S)

Prerequisites: AH 185, BIO 127 or BIO 213

This course provides basic knowledge of the most common diseases, anomalies, treatments, and procedures needed to analyze healthcare documentation for various health science support functions including abstracting, coding, transcription, auditing, and reimbursement. Drug classification, diagnostic tests, pathology, laboratory, radiology, nuclear medicine, and ultrasound procedures are also included.

## AH 219 NUTRITION AND DIET THERAPY FOR NURSES

Credits: 2 (S)

Prerequisites: BIO 213 or CHM 111

An introduction to basic normal and clinical nutrition. The fundamentals of nutrition and the special nutritional needs throughout the various stages of life will be addressed. The appropriate uses of diet therapy in restoring and maintaining health will also be covered. This class is offered for nursing and pre-nursing students only.

## Anthropology (ANT)

### ANT 101 INTRODUCTION TO ANTHROPOLOGY

Credits: 3 (F, S, SU based on sufficient demand)

This course provides an introductory survey of the basic theory and practice of the four classic fields of anthropology: physical anthropology, archaeology, linguistics, and cultural anthropology. The focus of the course is on the evolution of the human species, theories of early culture, reconstruction of the past through archaeological analysis, and structure and usage of language and its relationship to culture. The student will become familiar with the basic concepts of anthropology, its sub-disciplines, methods used to study and understand other cultures, and the general theories of cultures.

## Art (ART)

### ART 101 INTRODUCTION TO VISUAL ARTS

Credits: 3 (F, S, SU)

This slide lecture course will introduce the students to forms of creative expression within visual arts, encouraging the students to more actively explore art verbally and in written form. The course material will focus on various issues of aesthetic expression rather than the historical development of the arts.

### ART 114 ART FUNDAMENTALS

Credits: 3 Studio Course (F, S)

This course is an exploration of visual concepts through studio projects supplemented by lecture, discussion, and writing assignments. Art fundamentals will be investigated through drawing, color theory, and 3-dimensional processes.

### ART 140 DRAWING I

Credits: 3 Studio Course (F, S, SU)

This course introduces the fundamentals of drawing with consideration for line, form, space and perspective in rendering from three-dimensional shapes, still life, landscape or the human form utilizing a variety of drawing materials. Emphasis will be placed on learning to see and render basic shapes, line quality, value, light and shadow, texture, mass, perspective and composition. Students will be encouraged to apply these skills to develop a personal style of drawing.

## Aviation Science Technology (AST)

### AST 141 AVIATION FUNDAMENTALS ~ THIS CLASS OFFERED AT THE COT IN BOZEMAN

Credits: 3 (F)

Students must be co-enrolled in both AST-141 and AST-143

Introduction to basic flight principles. Course includes the principles of flight (basic aerodynamics), aircraft systems, performance, weight and balance, aviation physiology, federal air regulations, and flight publications.

### AST 142 PRIVATE PILOT FLIGHT ~ THIS CLASS OFFERED AT THE COT IN BOZEMAN

Credits: 2 (F)

Students must enroll in this course while pursuing a private pilot's certificate from an approved flight school. Course credits will be awarded upon receipt of a copy of the student's private pilot certificate.

### AST 143 BASIC AIR NAVIGATION ~ THIS CLASS OFFERED AT THE COT IN BOZEMAN

Credits: 3 (F)

Students must be co-enrolled in both AST-141 and AST-143

An introduction to air navigation procedures. Course includes basic meteorology, interpreting weather data pilotage and dead reckoning navigation, radio navigation, and cross country flight planning.

**AST 171 AIRCRAFT SYSTEMS FOR PILOTS~  
THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 3 (S)  
Introduction to basic aircraft systems found on modern single and multi-engine reciprocating aircraft. Topics will include piston engines, electrical systems, hydraulic and pneumatic systems, radios and instruments, propellers, pressurization, maintenance requirements and documentation, and trouble shooting from the cockpit. In this course you will be introduced to the systems commonly found in the training aircraft you are now flying.

**AST 241 ADVANCED NAVIGATION SYSTEMS~  
THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 3 (S)  
Prerequisites: AST 143, or consent of instructor  
Advanced navigation systems includes HSI, RMI, Loran, Doppler, VOR, NDB and GPS. Will include navigation theory, in-flight emergencies, electronic instrumentation, and advanced flight computing problems. Extensive use of in-class computer flight simulation will be exercised. Provides the radio navigation skills necessary for the instrument pilot.

**AST 242 INSTRUMENT FLIGHT ~  
THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 2 (S)  
Prerequisites: Private pilot's certificate  
Students must enroll in this course while pursuing the Instrument certificate at an approved flight school. Credits will be awarded upon receipt of a copy of the student's instrument rating.

**AST 243 INSTRUMENT/COMMERCIAL THEORY I~  
THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 3 (S)  
Prerequisites: AST 142  
An introduction to flight under IFR conditions. Course includes basic instrument flying, flight instruments, IFR charts and approach plate, IFR regulations and procedures, ATC clearances and IFR flight planning. Completion of the course will prepare the student for the Instrument Knowledge Exam.

**AST 245 INSTRUMENT/COMMERCIAL THEORY II~  
THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 3 (F)  
Prerequisites: AST 242, 243  
Commercial Flight Maneuvers, Airplane Aerodynamics, Advanced Performance, Power plants (including fuel injection and turbo-charging), Environmental Control Systems and Retractable Landing Gear Systems will be taught. Also, airports (marking and lighting) will be reviewed. Advanced Weight and Balance, and Part 61, 91, 125, and 135 and NTSB 830 Commercial Pilot Regulations will build on the private pilot regulations learned earlier. High Altitude Physiology, and High Performance and Turbine-Aircraft Flight Operations will be emphasized.

**AST 250 AVIATION OPERATIONS~  
THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 3 (S)  
An overview of general aviation operations, specifically the operation and management of the Fixed Base Operation (FBO). This course also covers current events and trends affecting the general aviation industry as a whole.

**AST 252 COMMERCIAL FLIGHT ~  
THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 4 (F,S)  
Students must enroll in this course while pursuing their Commercial certificate at an approved flight school. Credits will be awarded upon receipt of a copy of the student's commercial certificate.

**AST 260 FLIGHT INSTRUCTOR THEORY~  
THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 3 (S)  
Prerequisites: Commercial Pilot Certificate with an Instrument rating or consent of instructor.  
Theory of flight and ground instruction, aircraft performance, analysis of flight maneuvers, and other basic theory as needed by the airplane flight instructor. Prepares the student for the FAA Flight Instructor oral practical test and FAA written test. In-class discussion and presentations will be the main core of the course.

**AST 261 AVIATION SAFETY~  
THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 3 (F)  
This course will concentrate primarily on the organizations and processes that govern commercial and general aviation safety in the United States. This course will also provide an overview of modern techniques used in accident investigation. Also covered are descriptions of major factors and the causation of aviation accidents.



# YOUR College - COURSE DESCRIPTIONS

## **AST 262 ADVANCED AIRCRAFT THEORY~ THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 3 (S)  
Prerequisites: Private Pilot Certificate and Instrument Rating, or consent of the instructor.

Introduction to high performance, multi engine, aerobatic, and tailwheel aircraft; their systems, performance, weight and balance computations, flight procedures, characteristics, and emergencies. Unusual attitude recoveries, IFR and VFR.

## **AST 263 AVIATION REGULATIONS AND PROFESSIONAL CONDUCT~ THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 3 (S)

Provides a detailed study of the regulations and procedures common to the aviation industry as well as a survey of the legal environment and the standards of conduct required of professional pilots.

## **AST 281 CERTIFIED FLIGHT INSTRUCTOR~ OPTIONAL COURSE IN AVIATION PROGRAM**

### **THIS CLASS OFFERED AT THE COT IN BOZEMAN**

Credits: 1 (S)  
Prerequisites: Commercial Pilot Cert. and concurrent enrollment in AST 260

Students must be enrolled in this course while pursuing their Certified Flight Instructor certificate. Credit for the course will be awarded upon completion of the FAA Certified Flight Instructor Practical Test.

## **Biology (BIO)**

### **BIO 080 BASIC SCIENTIFIC CONCEPTS & SKILLS**

Credits: 3 (3 lecture) (F,S,SU based on sufficient demand)

This course is intended for students with limited exposure to biology, chemistry, and/or physical sciences. This course introduces students to basic scientific principles and processes in preparation for further study in the sciences.

### **BIO 103 INTRODUCTION TO BIOLOGY/LAB**

Credits: 4 (3 lecture, 1 lab) (F,S,SU)

Placement required: Students must place into MATH 108 or higher AND place into ENGL 121 or higher.

This course introduces basic biological principles including the cell, the interrelationship of structure and function, and the characteristics and classification of living things. Students will examine the five kingdoms of organisms (monera, protista, fungi, plants, animals), concentrating on vascular plants and vertebrate animals, as well as reproduction and basic ecological concepts. This general education course is designed for non-science majors. Laboratory experience will include experimentation, microscope work, observation, and dissection.

### **BIO 107 FUNDAMENTALS OF HUMAN BIOLOGY/LAB**

Credits: 4 (3 lecture, 1 lab) (F,S,SU)

Placement required: Students must place into MATH 108 or higher AND place into ENGL 121 or higher.

This one-term course covers the basics of human anatomy and physiology. All body systems will be examined. Fundamental principles of cellular chemistry, metabolism, anatomy and biology will be discussed as they relate to the physiology of the human body. This course is designed for specialized endorsements and certificate programs. Completion of this introductory course is highly recommended as preparatory for students planning on entering health science pre-professional programs. Laboratory experience will include experimentation, microscope work, observations, and dissection.

### **BIO 127 ANATOMY AND PHYSIOLOGY I FOR NON-CLINICAL MAJORS**

Credits: 4 (3 lecture, 1 virtual lab) (F,S,SU)

This course is the first in an online, two-course sequence for non-clinical health majors which provides a comprehensive study of the anatomy and physiology of the human body. The course will take a systemic approach covering all body systems. Topics will include structure, function and interrelationships of organ systems. The course will provide a foundation for students entering non-clinical health careers.

### **BIO 128 ANATOMY AND PHYSIOLOGY II FOR NON-CLINICAL MAJORS**

Credits: 4 (3 lecture, 1 virtual lab) (F,S,SU)

Prerequisites: BIO 107 or BIO 127

This course is the second in a two-course sequence for non-clinical health majors. The course will build on the topics explored in the first semester. Body systems will be covered in greater depth, and the focus will be on the interrelationships between systems. In addition to structure and function, an emphasis will be placed on the body processes which maintain homeostasis. The course will take a problem based approach allowing students to use critical thinking skills and apply knowledge from both semesters.

### **BIO 151 MOLECULAR AND CELLULAR BIOLOGY/LAB**

Credits: 4 (3 lecture, 1 lab) (F 2008 based on Sufficient Demand)

Prerequisites: CHM111 or CHM 131

This course is designed to help students understand and apply major concepts in molecular and cellular biology including: biological macromolecules, cell structure and function, major biochemical pathways (cellular respiration and photosynthesis), cell division, Mendelian genetics, modern biotechnology, early development, and major control mechanisms within the body. Students will also examine the scientific method.

### **BIO 152 ORGANISMAL BIOLOGY/LAB - BIOLOGY II**

Credits: 4 (3 lecture, 1 lab) (S 2009 based on Sufficient Demand)

This course is designed to help students understand and apply major concepts in organismal biology including the diversity, evolution, and ecology of organisms. The origin of life and the evolution of cells, classification and evolution of organisms, major domains and kingdoms of life, natural selection and evolution, species diversity, ecosystems organization and energy flow, community interactions, population ecology and behavioral ecology will be discussed. CHM 111 or higher is highly recommended.

## BIO 202 HUMAN ANATOMY FOR RAD TECHS

Credits: 3 (3 lecture) (F,S)  
 This course is an integrated study of the human body in which the detailed anatomy of the skeletal, respiratory, circulatory, digestive, nervous, urinary, and reproductive systems is covered. This course is designed to provide students with the fundamentals of human anatomy necessary for successful completion of the Radiologic Technology program at MSU-COT by providing an interactive, hands-on learning environment.

## BIO 205 PERSONAL NUTRITION

Credits: 3 (F,S)  
 To understand the science of human nutrition and apply nutrition and food concepts to the individual during critical stages of the life cycle. To demonstrate the consumer skills needed to achieve optimal nutritional status.

## BIO 213 ANATOMY AND PHYSIOLOGY I LECTURE/LAB

Credits: 4 (3 lecture, 1 lab) (F,S,SU)  
 Placement required: Students must place into MATH 108 or higher AND place into ENGL 121 or higher.

This course is an integrated study of the human body in which histology, anatomy and physiology of each system is covered. The first semester (part I) of this sequence incorporates molecular, cellular and tissue levels of organization for the integumentary, skeletal with articulations, muscular, and nervous systems. Laboratory experience will include experimentation, microscope work, observations, and dissection.

## BIO 214 ANATOMY AND PHYSIOLOGY II LECTURE/LAB

Credits: 4 (3 lecture, 1 lab) (F,S)  
 Prerequisites: BIO 213 with a grade of "C-" or higher

This course is an integrated study of the human body in which the histology, anatomy and physiology of each system is covered. The second part of this two semester course sequence involves the study of the following systems: sensory, endocrine, cardiovascular with hematology, lymphatic with immunology, respiratory, urinary with water, electrolyte and acid base balance, digestive with nutrition and reproductive systems. Laboratory experience will include experimentation, microscope work, observations, and dissection. Upon completion of CHM 111, Anatomy & Physiology I and II, with labs, will transfer to MSU-Bozeman as Anatomy & Physiology I and II.

## BIO 255 PRINCIPLES OF GENETICS

Credits: 3 (S based on Sufficient Demand)  
 Introduction to classical and molecular genetics of eukaryotes, with emphasis on transmission genetics, the structure and regulation of genes, and mechanisms of genetic change.

## BIO 280 MICROBIOLOGY AND COMMUNICABLE DISEASES

Credits: 4 (3 lecture, 1 lab) (F,S)  
 Prerequisites: CHM 111 or BIO 107

Aspects of microbial life are examined in relation to growth requirements, reproduction, and disease-producing capabilities. Topics include basic biochemistry, prokaryotic, and eukaryotic morphology, microbial metabolism, genetics, and classification. In addition to the previous topics, mechanisms of infection, epidemiology, immune response and the major microbial pathogens of the human body will be explored. Emphasis will be placed on the control and spread of microorganisms and disease prevention. This course includes a required lab component.

## Business Management (BUS)

### BUS 106 INTRODUCTION TO BUSINESS

Credits: 3 (F,S)  
 This course provides an overview of business from a broad perspective. Topics covered include business ownership, free enterprise, management, human resources, marketing, finance, and accounting and data systems.

### BUS 220 SALES

Credits: 3 (F 2009 based on sufficient demand)  
 Sales is a course designed to develop students' knowledge of sales practices and procedures and to develop skills in personal persuasion. Topics covered include selling psychology, prospecting, customer relations, approaches, presentation methods, handling objections, and closing techniques.

### BUS 230 MANAGEMENT

Credits: 3 (F,S)  
 Prerequisite: BUS 106  
 This course is a study of basic management and organizational principles of business firms. Emphasis is on effectively working through others to achieve objectives. This is done by exploring planning, decision making, organizing, leading, staffing, controlling, EEOC requirements, appraising performance, handling disciplinary problems, and stress and time management.

### BUS 235 MARKETING

Credits: 3 (S)  
 Prerequisite: BUS 106  
 This course is designed to develop students' knowledge of marketing terminology and strategies. Subject areas covered include product development, the marketing concept, consumer behavior, research, pricing, channels of distribution, and promotion.

### BUS 240 ADVERTISING

Credits: 3 (S)  
 Prerequisite: BUS 106  
 This course is designed to acquaint students with the fundamentals and terminology of advertising. Topics covered are the role of advertising, demographic segmentation, advertising psychology, advertising strategies, media strengths and weaknesses, layout and design, and careers in advertising. Class participants will develop their own advertisements using a variety of media.

### BUS 249 GLOBAL MARKETING

Credits: 3 (F)  
 This course will explore the historical and current perspective of international trade focusing on structures, strengths and weaknesses, marketing environment and regulation, currency issues, and factors affecting success and failure in international marketing.

### BUS 255 LEGAL ENVIRONMENT

Credits: 3 (F)  
 Prerequisite: BUS 106  
 This course is designed to increase students' level of awareness of law in the business environment. Topics covered include contract law, sales contracts, agency and employer/employee relationships, torts, securities regulations, antitrust law, and product liability.

# YOUR College - COURSE DESCRIPTIONS

## **BUS 260 ENTREPRENEURSHIP**

Credits: 3 (S)  
Prerequisite: BUS 106, BUS 230, BUS 235, ACCT 221 or Instructor consent.  
Co requisite: ENGL 228

This course guides students through the development of a business plan, concentrating on market and industry analysis, competitive analysis, site selection, cash flow analysis, marketing, finance, and management. Students will develop a competition quality business plan for a company of their choice. Students should register for both ENGL 228 and BUS 260 in their final semester. On-campus offering of ENGL 228 is recommended for Entrepreneurship students.

## Civil Engineering Technology (CET)

## **CET 173 ARCHITECTURAL CONSTRUCTION AND MATERIALS**

Credits: 3 (F)  
This course is an introduction to construction materials and methods, building systems and construction details. Emphasis is placed on selection of materials and methods. Laboratory section includes site investigations observing materials and their properties

## Chemistry (CHM)

## **CHM 111 INORGANIC CHEMISTRY/LAB**

Credits: 4 (3 lecture, 1 lab) (F, S, SU)  
Prerequisite: MATH 103

This course is a survey of the principles of inorganic chemistry with emphasis on scientific measurement; atomic structure; chemical periodicity; chemical bonding and nomenclature; chemical reactions and stoichiometry; gas laws; properties of liquids, solids, and solutions; acid-base chemistry; and some electrochemistry and nuclear chemistry. This course is designed for students entering health science or nursing programs. The laboratory portion of the course provides hands-on experience dealing with the topics covered in the lecture portion. It is strongly recommended that students have good basic algebra skills.

## **CHM 112 ORGANIC AND BIOCHEMISTRY/LAB**

Credits: 4 (3 lecture, 1 lab) (F, S)  
Prerequisites: CHM 111 with a grade of "C-" or higher

This course is a survey of the principles of organic chemistry and biochemistry with emphasis on nomenclature; structure and classification; properties; and applications of organic and biological compounds. Some discussions of metabolism and cellular processes are also included. This course is designed for students entering health science or nursing programs. The laboratory portion of the course provides hands-on experience dealing with the topics covered in the lecture portion.

## **CHM 131 GENERAL CHEMISTRY I/LAB**

Credits: 4 (3 lecture, 1 lab) (F 2008 based on Sufficient Demand)  
Prerequisites: MATH 108

The first course in the two-semester general chemistry sequence covering the general principles of modern chemistry. Topics covered include: atomic structure, stoichiometry, chemical reactions, chemical bonding, the periodic table, and the states of matter. The laboratory portion of the course provides hands-on experience dealing with the topics covered in the lecture portion. The experimental nature of the science of chemistry and the mathematical treatment of data are emphasized.

## **CHM 132 GENERAL CHEMISTRY II/LAB**

Credits: 4 (3 lecture, 1 lab) (S 2009 based on Sufficient Demand)  
Prerequisites: CHM 131 with a grade of "C-" or higher

The second course in the two-semester general chemistry sequence. Topics covered include: solutions, chemical equilibrium, acids and bases, thermodynamics, and kinetics. The laboratory portion of the course provides hands-on experience dealing with the topics covered in the lecture portion.

## Computer Information Technology (CIT)

## **CIT 110 INTRODUCTION TO COMPUTERS**

Credits: 3 (F,S,SU)  
Using both lecture and lab experience, this course introduces the technology and terminology of computer systems and demonstrates how computers have impacted individuals and society. The course also provides instruction in the basics of operating systems and word processing, spreadsheet, and database software.

## **CIT 111 INTRODUCTION TO COMPUTERS FOR TECHNOLOGY MAJORS**

Credits: 3 (F,S)  
This course prepares technology students for computer concepts and applications coverage required in their program. Hardware and software concepts, file management techniques, and basic operating systems skills will be covered beyond the end-user level from an information technology support perspective. A hands-on overview using popular microcomputer software provides experience with word processing, spreadsheet and database software.

## **CIT 120 INTERNET ESSENTIALS**

Credits: 2 (F,S,SU)  
This course will teach skills in using the Internet as an information and educational resource as well as its impact on global society. Internet components explored will include the World Wide Web, FTP, Email, and basics of creating a web page. Social implications of the Internet and its impact on issues such as copyright and fair use will be explored. Thoughtful examination and research on the future of the Internet will conclude the class.

## **CIT 125 FUNDAMENTALS OF VOICE AND DATA CABLING**

Credits: 3 (F, S, SU)  
Fundamentals of Voice and Data Cabling is a lecture and hands on course which focuses on standards and techniques for structured cabling installation. Students will work with both copper and fiber optic cabling along with tools used to terminate the cables. The emphasis is on the skills and knowledge to correctly install cabling within a commercial environment. This course can lead to the Panduit first level installer certification.

## **CIT 126 NETWORKING BASICS (CCNA 1)**

Credits: 3 (F)  
Pre- or Co-requisites: CIT 110, CIT 111 or instructor approval

Networking basics is the first of the four courses leading to the Cisco Certified Network Associate (CCNA) certification. Networking basics is a lecture and hands-on course which introduces Cisco Networking Academy Program students to the networking field. The course focuses on network terminology and protocols, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards.

## **CIT 140 PRESENTATION FUNDAMENTALS**

Credits: 1 (F,S)  
Prerequisite: CIT 110/111

This course is an introduction to the use of presentation software to create and design group presentations and slide shows. Students will be required to create group presentations to be delivered to an audience.

## **CIT 160 INTRODUCTIONS TO PROGRAMMING**

Credits: 3 (F)  
Prerequisites: CIT 111, CIT 205, MATH 108 or instructor approval

This course is an introduction to programming logic and computer problem-solving using programming language. Students learn the fundamentals of structured program design. Hands-on emphasis is provided in programming including decision structures, looping structures, and text files. Course work stresses practical application of programming.

## **CIT 166 COMPUTER OPERATING SYSTEMS**

Credits: 4 (F, SU)  
Prerequisite: CIT 110/111

This course examines the role of operating system software and various user interfaces. The primary focus will be on using a command line interface for file management tasks as well as creating and troubleshooting batch files. File management, troubleshooting, application, Internet and administrative functions in a graphical interface will also be examined. This course maps to the MCSE/MCSA Exam 70-270 certification.

## **CIT 176 ROUTERS AND ROUTING BASICS (CCNA 2)**

Credits: 3 (F)  
Pre- or Co-requisite: CIT 126

Routers and Routing Basics is the second of four CCNA courses leading to the Cisco Certified Network Associate (CCNA) Certification. Routers and Routing Basics is a lecture and hands-on course which focuses on initial router configuration, Cisco IOS Software management, routing protocol configuration, TCP/IP and access control lists (ACLs). Students will develop skills on how to configure a router, manage Cisco IOS Software, configure routing protocols, and create access list controlling access to the router. This class includes a number of hands-on activities using state-of-the-art routing equipment. After completing this course students are encouraged to take the CCNA Intro Certification exam which is one of two exams leading toward CCNA certification.

## **CIT 205 DATABASE MANAGEMENT**

Credits: 3 (F,S,SU)  
Prerequisite: CIT 110/111

This course covers expert level skills for the Microsoft Certified Application Specialist (MCAS) certification in Microsoft Access. Use of application software focuses on data queries (both Query-By-Example and Structured Query Language), report and form generation, multiple table relationships, and interface techniques. Database administration and customization techniques will also be covered.

## **CIT 206 DATABASE MANAGEMENT II**

Credits: 3 (S)  
Prerequisite: CIT 205

Database Management II explores database systems through practical database design, implementation and management topics. Basic data modeling concepts will be explored with respect to the major data models: relational, entity relationship model, hierarchical, network, and object oriented. The relational model will be stressed. Students will learn, using normalization techniques, how to avoid Data anomalies. Database implementation and management using Oracle SQL will be covered in depth.

## **CIT 208 FUNDAMENTALS OF UNIX/LINUX**

Credits: 4 (S)  
Prerequisite: CIT 110/111, CIT 166

This course will help the student understand the many complex topics of Linux/Unix based systems and help students master Linux network administration. Students will use various learning tools, hands on projects and case projects to allow students to implement the practices they will be learning. This course will help prepare students to successfully complete the CompTIA Linus + exam.

## **CIT 210 NETWORK OPERATING SYSTEMS I**

Credits: 2 (F)  
Pre- or Co-requisites: CIT 111, CIT 166

This course provides students with the knowledge and skills that are required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft Windows Server 2003 environment. This course will help the student prepare for the following Microsoft Certified Professional exam: 70-290: Managing and Maintaining a Microsoft Windows Servers 2003 Environment.

## **CIT 211 NETWORK OPERATING SYSTEMS II**

Credits: 2 (F)  
Pre- or Co-requisites: CIT 111, CIT 166, CIT 210

This course provides students with the knowledge and skills to implement, manage, and maintain a Microsoft Windows Server 2003 network infrastructure. The course is intended for systems administrator and systems engineer candidates who are responsible for implementing, managing, and maintaining server networking technologies. These tasks include implementing routing; implementing, managing, and maintaining Dynamic Host Configurations Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access. This course will help the student prepare for the following Microsoft Certified Professional exam: 70-291: Implementing Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure.

## **CIT 212 NETWORK OPERATING SYSTEMS III**

Credits: 2 (S)  
Prerequisite: CIT 210, CIT 211

This course provides students with the knowledge and skills necessary to plan and maintain a Windows Servers 2003 network infrastructure. This course is appropriate for individuals employed as or seeking a position as a systems engineer. This course is also appropriate for individuals currently supporting a competitive platform who want to enhance their job skills on Microsoft Windows Server 2003 networking. This course will help the student prepare for the following Microsoft Certified Professional exam: 70-293: Planning and Maintaining a Microsoft Windows Server 2003 Network Infrastructure.

# YOUR College - COURSE DESCRIPTIONS

## **CIT 213 NETWORK OPERATING SYSTEMS IV**

Credits: 2 (S)  
Prerequisite: CIT 210, CIT 211

This course addresses the MCSA and MCSE skills path for IT Pro security practitioners, specifically addressing the training needs of those preparing for the 70-299 certification exam. The primary product focus is on Microsoft Windows Server 2003 based infrastructure solutions but will include some client focused content where appropriate. This learning product is to provide functional skills in planning and implementing infrastructure security. The course is for a system administrator or system engineer who has the foundation implementation skills and knowledge for the deployment of secure Microsoft Windows Server 2003 based solutions. This course is not intended to provide design skills, but will cover planning skills at a level sufficient to enable section making for the implementation process.

## **CIT 215 NETWORK OPERATING SYSTEMS V**

Credits: 2 (SU Based on Sufficient Demand)  
Prerequisite: CIT 210, CIT 211

This course provides students with the knowledge and skills to successfully plan, implement, and troubleshoot a Microsoft Windows server 2003 Active Directory service infrastructure. This course focuses on a Windows Server 2003 directory service environment, including forest and domain structure, Domain Name System (DNS), site topology and replication, organizational unit structure and delegation of administration, Group Policy, and user, group, and computer account strategies. This course is for individuals who are employed or seeking a position as a systems engineer. This course is appropriate for individuals who currently support a competitive platform who want to enhance their skills using Windows Server 2003 Active Directory. This course will help the student prepare for the following Microsoft Certified Professional exam: 70-294: Planning implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure.

## **CIT 216 NETWORK OPERATING SYSTEMS VI**

Credits: 2 (SU Based on Sufficient Demand)  
Prerequisite: CIT 210, CIT 211

This course provides students with the knowledge and skills to design a Microsoft Active Directory service and network infrastructure for a Microsoft Windows Server 2003 environment. This course is intended for systems engineers who are responsible for designing directory service and/or network infrastructures. This course will help the student prepare for the following Microsoft Certified Professional exam: 70-297: Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure.

## **CIT 217 COMPUTER GRAPHIC DESIGN**

Credits: 4 (F)  
Prerequisite: CIT 110/CIT 111

Among the major responsibilities the web page designer faces are decisions relating to the number, placement, and function of graphics and media on the page or site being designed. This course makes a thorough examination of the strategies leading to an informed decision about graphic and media placement, as well as the tools needed to accomplish the goals of the web steward and designer. Among the tools to be employed are Adobe Photoshop and Macromedia. The overall objective of the course will be an assembly of useful strategies and processes and a firm understanding of the role of graphic design in web presentation.

## **CIT 220 ELECTRONIC SPREADSHEETS**

Credits: 3 (F,S SU)  
Prerequisite: CIT 110/111

This course introduces students to business applications using spreadsheets. Emphasis will be placed on the essential functions of spreadsheet operation, as well as an introduction to some advanced spreadsheet features such as lookup functions and list management. This course covers expert level skills for the Microsoft Certified Application Specialist (MCAS) certification in Microsoft Excel.

## **CIT 226 SWITCHING BASICS AND INTERMEDIATE ROUTING (CCNA 3)**

Credits: 3 (S)  
Prerequisite: CIT 176

This course covers advanced router configurations with both lecture and hands-on activities. Topics include LAN switching, network management, wireless and advanced network design. This course is the third in a four-course series that leads toward certification as a Cisco Certified Networking Associate (CCNA).

## **CIT 229 WEB PAGE CONSTRUCTION**

Credits: 3 (F)  
Prerequisites: CIT 110, CIT 120

This course focuses on the skills and concepts necessary to create effective web pages that include links, graphics, sound, tables, forms, and style sheets using common editors. Other utilities, such as image mapping and graphics editing software, will also be examined and utilized.

## **CIT 231 WEB PAGE DESIGN**

Credits: 3 (S)  
Prerequisites: CIT 229 or consent of instructor

This course continues to utilize the skills developed in CIT 229 to build Web pages, concentrating on high profile, advanced applications to develop their craft. Students will research the essentials of good Web design and will master the skills necessary to create their own styles and designs. Management of community client sites will be established and published.

## **CIT 250 WEB PAGE PROGRAMMING**

Credits: 3 (S)  
Prerequisites: CIT 229

Among Web page builders and programmers there is a necessity to build pages that include programming to allow interaction between the visitor and the site as well as connectivity to databases that serve the client and site owner. Web Page Programming will explore, examine, and evaluate currently used programming languages that allow Web interactivity and connectivity. Students will be required to design pages using various languages in ways that lead the mission of the site to its desired outcomes. The overall objective of the course will be an assembly of useful programming tools, processes and examples for the Web designer.

## **CIT 255 FUNDAMENTALS OF NETWORK SECURITY I**

Credits: 3 (F)  
Prerequisites: CIT 126, 176, 226, 276 or instructor approval

The Fundamental of Network Security I, focus is on expanding skills learned in CCNA program with primary emphasis on Cisco Router IOS commands used for securing a network. The course is designed to help students to prepare for the Cisco Secur Exam. Topics include access lists, route maps, VPN, CA, IKE and IP Sec, AAA and Tacacs, and CBAC. Students will learn how to best secure, monitor and correct security problems, utilizing an hands-on environment.

## CIT 256 FUNDAMENTALS OF NETWORK SECURITY II

Credits: 3 (S)  
Prerequisites: CIT 255

This course is a continuation of Fundamentals of Network Security I. The course is designed to help students with the Cisco Advanced PIX Firewall Exam. The students will utilize a PIX Firewall to better secure their network systems. Hardware and IOS are used to secure systems, in a hands-on environment, using the latest technologies available on the market. Students will also gain a better understanding of their legal obligations regarding secure systems.

## CIT 272 PC TROUBLESHOOTING/MAINTENANCE

Credits: 4 (F,S)  
Pre- or Co-requisite: CIT 111 or Instructor Approval

The primary purpose of this course is to prepare students to troubleshoot and repair microcomputer systems. This goal is achieved through a three-part effort: (1) theory presentation with regular assessment; (2) hands-on operation and exploration in lab experiments; and (3) troubleshooting applications in the lab. Hands-on training includes servicing microcomputers, identification, installation, and configuration of microprocessors, memory, system boards, power supplies, and floppy and disk drives. The emphasis of this course is both the hardware and operating systems for the CompTia A+ Essentials and IT Technician Certification tests.

## CIT 275 COMPUTER END-USER SUPPORT

Credits: 3 (S)  
Prerequisites: CIT 166, CIT 272, COMM 135 or instructor approval

This capstone course provides students with experience in training and supporting end users, techniques for developing and delivering training modules, and strategies for providing on-going technical support. Emphasis is on problem solving, such as debugging, troubleshooting and interaction with users. An internship in the second half of the semester will give students firsthand experience with typical problems in the field.

## CIT 276 WAN TECHNOLOGIES (CCNA 4)

Credits: 3 (S)  
Prerequisite: CIT 226

WAN Technologies is the last of four courses leading to the Cisco certified Network Associate (CCNA) certification. This course is a lecture and hands-on course which focuses on advanced IP addressing techniques (Network Address Translation [NAT], Port Address Translation [PAT], and DHCP), WAN technology and terminology, PPP, ISDN, DDR, Frame Relay, network management, access lists, and introduction to optical networking. In addition, the student will prepare to take the CCNA certification examination. This course includes a number of hands-on activities using state-of-the-art networking equipment. After completing this course students are encouraged to take either the CCNA ICND certification exam which is the second part of the CCNA certification exam or the all in one CCNA certification exam.

## CIT 278 ADVANCED ROUTING (CCNP 1)

Credits: 4 (F)  
Prerequisites: CIT 276, CCNA TechPrep or CCNA certification

Advanced Routing is the first of four courses leading to the Cisco Certified Network Professional (CCNP) certification. Advanced Routing is a lecture and hands-on course which teaches students how to design, configure, maintain, and scale routed networks. Students learn to use VLSMs, private addressing, and NAT to enable more efficient use of IP addresses. This course teaches students how to implement routing protocols such as RIP v2, EIGRP, OSPF, IS-IS, and BGP. In addition, this course details the important techniques used for route filtering and route redistribution. After the completion of this class, students are encouraged to take the CCNP Routing (BSCI) certification exam which is one of the certification exams leading to the CCNP certification.



# YOUR College - COURSE DESCRIPTIONS

## CIT 280 DESKTOP PUBLISHING

Credits: 3 (S)  
Prerequisite: CIT 110/111, CIT 217

Students learn to design, prepare, edit, and enhance publications by integrating text, graphics, spreadsheets, and charts that have been created in other software programs. They build skills in using a desktop publishing software program by creating publications such as newsletters, brochures, advertisements, programs, business cards, and stationery.

## CIT 281 MULTILAYER SWITCHING (CCNP 3)

Credits: 4 (S)  
Prerequisite: CIT 276 or instructor approval

Multilayer Switching is the third of four courses leading to the Cisco Certified Network Professional (CCNP) certification. Multilayer Switching is a lecture and hands-on course which introduces students about the deployment of the state-of-the-art campus LANs. This course focuses on the selection and implementation of the appropriate Cisco IOS services to build reliable scalable multilayer-switched LANs. Students will develop skills with VLANs, VTP, STP, inter-VLAN routing, redundancy, Cisco AVVID, QOS issues, campus LAN security, and transparent LAN services. After the completion of this class, students are encouraged to take the CCNP Switching certification exam (BCMSN) which is one of the certification exams leading to the CCNP certification.

## CIT 283 FUNDAMENTALS OF WIRELESS LANS

Credits: 3 (S)  
Prerequisite: CIT 176 or CCNA 2 Techprep

The Fundamentals of Wireless LANS is an introductory course which focuses on the design, installation, configuration, operation, and troubleshooting of 802.11a, 802.11b, and 802.11g Wireless LANS. This course is a comprehensive overview of wireless technologies, devices, security, design, and best practices with a particular emphasis on real work applications and skills. Students will be doing a number of hands-on activities using Cisco wireless access points, NICs, and bridges.

## CIT 284 IMPLEMENTING SECURE CONVERGED WIDE-AREA NETWORKS

Credits: 4 (F)  
Prerequisites: CIT 276, CCNA TechPrep or CCNA certification

CIT 284 Implementing Secure Converged Wide-area Networks is one of four courses leading to the Cisco Certified Network Professional (CCNP) designation. Implementing Secure Converged Wide-area Networks introduces Students to providing secure enterprise-class network service for teleworkers and branch sites. Students will learn how to secure and expand the reach of an enterprise network with focus on VPN configuration and securing network access. Topics include teleworker configuration and access, frame-mode MPLS, site-to-site IPSEC VPN, Cisco EZVPN, strategies used to mitigate network attacks, and Cisco device hardening.

## CIT 285 OPTIMIZING CONVERGED NETWORKS

Credits: 4 (S)  
Prerequisites: CIT 276, CCNA TechPrep, or CCNA certification

CIT 285 Optimizing Converged Networks is one of four courses leading to the Cisco Certified Network Professional (CCNP) designation. Optimizing Converged networks introduces students to optimizing and providing effective QoS techniques in converged networks operating voice, wireless and security applications. Topics include implementing a VOIP network, implementing QoS on converged networks, specific IP QoS mechanisms for implementing the DiffServ QoS model, AutoQoS, wireless security and basic wireless management.

## CIT 287 IP TELEPHONY

Credits: 3 (S)  
Prerequisite: CIT 276 or instructor approval

IP Telephony is an introductory course into the technology and equipment used to provide telephone services by using LAN and WAN based technologies. Students in this highly hands-on course will develop voice over IP (VoIP) networks using the application software, protocols and equipment used in implementing IP telephony in both small and large businesses.

## CIT 295 CURRENT TOPICS IN NETWORK OPERATING SYSTEMS

Credits: Variable (S, F based on sufficient demand)  
Prerequisites: CIT 126, CIT 210, CIT 211 or instructor approval

This course provides students with supporting knowledge and advanced skills required to set up, configure, use, and support network operating systems. This course also helps prepare the student to meet requirements to become a certified professional. Topics vary and will be determined by industry changes, technological advances, and student interest.

## College Studies (COLS)

### COLS 100 INTRODUCTION TO COLLEGE

Credits: 3 (F,S)  
Pass/Fail Basis

The course is designed to help freshmen make a smooth transition to college life and to help students maximize their potential in all courses.

### COLS 101 FIRST YEAR SEMINAR

Credits: 3 (F)  
This course serves as an introduction to college level critical thinking based on the central theme determined each semester. A cross-disciplinary approach will study the chosen theme through the lenses of areas such as biology, culture, literature, and history both in the classroom and beyond in field trip experiences. Potential themes include (but are not limited to) the Missouri River, the classic world, and the college experience. Individual participation in writing and the spoken word are encouraged by the small class size.

## Communication (COMM)

### COMM 130 PUBLIC SPEAKING

Credits: 3 (F,S,SU)  
Public Speaking is a course designed to aid students in overcoming speech anxiety through preparation and presentation of speeches in a variety of formats.

### COMM 135 INTERPERSONAL COMMUNICATION

Credits: 3 (F,S,SU)  
This course is designed to show some of the difficulties that language and understanding present us. It is concerned with better understanding of ourselves and our semantic and interpersonal environments. It attempts to develop meaningful, effective, and sensitive means of relating to others. Varied group experiences and oral presentations provide students the opportunity to explore current topics.

## Dental Assistant (DA)

### DA 115 HEAD, NECK AND ORAL ANATOMY

Credits: 4 (F)  
 The majority of this course includes content in head, neck and dental anatomy. Oral tissue embryology and histology and general human anatomic and physiologic concepts are introduced by the instructor. Tooth numbering systems and cavity classifications are emphasized as a supplement to the dental anatomy portion. Students successfully completing this course will be able to apply basic oral anatomic theory to laboratory and clinical settings.

### DA 118 DENTAL OFFICE MANAGEMENT

Credits: 2 (F)  
 This course exposes students to various reception procedures and dental practice management responsibilities commonly expected in a professional dental office. Students will learn the fundamentals of computer use in the dental practice by utilizing a dental office software package. Skills include creating patient records and a database to set up patient accounts, schedule appointments, bill patient and third parties, and process payments and reports. HIPAA regulations and other legal expectations within the healthcare field will also be discussed. This course is offered in hybrid format with both on-line and on-site requirements.

### DA 120 ORAL RADIOLOGY/RADIOGRAPHY I

Credits: 3 (F)  
 This course is the first of a series of two courses and includes both didactic and laboratory instruction. Content in this course includes the history of oral radiography, radiation, physics, x-ray equipment supplies and darkroom procedures, infection control practice, intraoral technique, biological effects of radiation, radiation protection and anatomic landmark identification and mounting. The practical component applies radiographic theory and technique in practice.

### DA 121 ORAL RADIOLOGY/RADIOGRAPHY II

Credits: 2 (S)  
 Prerequisite: DA 115, DA 120  
 Oral Radiology/Radiography II includes didactic, laboratory, and clinic instruction. Content in this course emphasizes extraoral, and perfection of intraoral techniques, quality assurance in radiography, radiograph interpretation and assessment, and application of theory in the lab/clinic setting. A student satisfies the practical portion of this course by successfully performing both paralleling and bisecting intraoral periapical techniques, by exposing horizontal, vertical, pedodontic, and anterior bitewings, exposing occlusal radiographs, and demonstrating proper panoramic exposure. Other content sections include biological effects of radiation, radiation protection, specialty techniques, identification and correction of faulty radiographs, and digital radiography. Students are expected to obtain their own prescription patients for final full mouth series. Dental assistant program students will be prepared to sit for the oral radiology component of the Dental Assisting National Board (DANB) examination upon successful completion of this course.

### DA 123 CHAIRSIDE THEORY AND PRACTICE I

Credits: 4 (F)  
 The Chairside I course covers aspects of the clinical dental assistant's duties in a general dental practice. It includes instruction in dental instruments, equipment, materials, and basic laboratory and chairside procedures (including patient relations and charting methods). Oral anesthesia theory is an additional component. Infection control theory, including microbiology, and practice are heavily emphasized throughout this course.

### DA 124 CHAIRSIDE THEORY AND PRACTICE II

Credits: 4 (S)  
 Prerequisite: DA 115, DA 123

Chairside II is a continuation of Chairside I and includes lecture, laboratory and clinical sessions. Content includes emphasis on aesthetic restorative procedures, rubber dam concepts, coronal polishing, pit and fissure sealant placement, fluoride treatments, and fabrication and placement of temporary crowns and restorations.

### DA 150 DENTAL SCIENCES/PREVENTIVE DENTISTRY

Credits: 4 (S)  
 Prerequisite: DA 115, DA 123

This course includes the study of the oral plaque diseases and their prevention as well as an introduction to the science-based subjects of oral pathology, pharmacology, nutrition, and medical emergencies. Focus will be on the theory of the oral plaque diseases processes, the identification of associated pathologies, and the prevention of the diseases. Specific content areas also include drug classifications and interactions, fluoride, oral hygiene technique, and patient education.

### DA 165 DENTAL SPECIALTIES

Credits: 3 (S)  
 Prerequisites: DA 115, DA 123

The clinical specialties course includes an introduction to six dental specialties: periodontics; endodontics, fixed and removable prosthodontics, oral surgery, pediatric dentistry and orthodontics. It includes theory in the individual specialties along with procedure set-ups (armamentarium), materials used, and instrumentation. The student will also apply the knowledge in a laboratory procedures setting.

### DA 190 CLINICAL OFFICE PRACTICE AND SEMINAR

Credits: 7 (SU)  
 Prerequisites: Program director approval required to enroll.

This is the capstone course for the program and requires the student to integrate and apply all dental concepts from earlier coursework in the clinical setting. It involves rotated extramural clinical office experience in the dental community where students actively participate in the operation of the dental practice as dental assistants in training. The on-line component of the course introduces a student to job search strategies and preparation of personal resumes and cover and follow-up letters. Interview techniques are also incorporated. This course is offered in hybrid format having both on-line and on-site requirements.

## Interior Design (DE)

### DE 161 INTRODUCTION TO DESIGN

Credits: 3 (F)  
 This course introduces design as it relates to interior design, architecture and related professions, through the study of the elements and principles of design and the ways in which humans interact with designed environments and elements.

### DE 162 INTERIOR DESIGN GRAPHICS

Credits: 3 (F)  
 This course provides interior design students with a basic knowledge of building structures, construction techniques, and building materials. It introduces the technical skills needed to read and produce drawings used in the practice of interior design, including floor plans, interior elevations, reflected ceiling plans, and section drawings.

# YOUR College - COURSE DESCRIPTIONS

## DE 163 PRESENTATION DRAWING

Credits: 3 (S)  
Prerequisite: DE 162 or equivalent

This course presents the elements of two- and three-dimensional design as related to interior representational drawings. Emphasis is on one- and two-point perspective drawings. Addition of color to drawings by use of marker and colored pencil is introduced.

## DE 164 HISTORIC INTERIORS

Credits: 3 (F)

This course offers exposure to stylistic variations found in interior design of the ancient world and traditional Europe. Students will become aware of how these styles have been the impetus for pre-1900 architecture and decorative arts in America.

## DE 165 CONTEMPORARY INTERIORS

Credits: 3 (S)  
Prerequisite: DE 164

This course is a continuation of the study of the development of the interior environment from the 19th century to the present. The difference in the basic philosophy between 19th and 21st century design is emphasized.

## DE 166 TEXTILES AND INTERIOR FINISHES

Credits: 3 (F)

This course includes the study of textiles used by interior designers, including their content, finishes, characteristics, construction, selection, cost, performance and maintenance. Students will gain familiarity with a wide range of products used in both residential and commercial interiors, including materials for walls, flooring, ceiling, and furnishings.

## DE 168 SPACE PLANNING

Credits: 3 (S)  
Prerequisites: DE 161, DE 162

This course explores the physical and psychological concepts pertaining to interior spaces. Students work with commercial design programs, schematic planning tools, contract furniture, and barrier-free concepts to create functional space plans that meet program criteria. There is also emphasis on kitchen and bath space planning guidelines.

## DE 261 FIELD STUDY

Credits: 3 (SU)  
Prerequisite: Completion of all 100-level technical courses or consent of instructor

This course gives students experience in the daily operation of an interior design firm or a related business. It provides experience in dealing with employers, clients, customers and other business persons. Students will encounter opportunities to utilize skills and knowledge acquired in previous interior design courses.

## DE 262 STUDIO I

Credits: 4 (F)  
Prerequisite: Completion of all 100-level technical courses

This course is a laboratory experience with a real-life design project. Students will develop a complete presentation including floor plans, interior elevations, interior perspectives, color board and room finish schedule. Students will make an oral presentation to their clients using the presentation boards to illustrate their design solutions. Emphasis is on residential design.

## DE 263 STUDIO II

Credits: 4 (S)  
Prerequisite: Completion of all 100-level technical courses and DE 262

Studio II is an advanced laboratory experience with a more complex real-life case study. Students will develop a complete presentation. Emphasis is on contract (commercial) design.

## DE 264 LIGHT, COLOR, AND LIGHTING SYSTEMS

Credits: 3 (S)  
Prerequisite: DE 161, DE 162

This course is an introductory study of color theory, including human response to color. It covers the effects of various sources of lighting on color and the basic considerations when selecting lamps and fixtures. Design of lighting systems to obtain desired foot-candle levels and illumination quality is included.

## DE 265 PROFESSIONAL PRACTICES

Credits: 3 (S)  
Prerequisite: Completion of all 100-level technical courses, DE 262

This course is an introduction to business principles and practices related to the interior design profession. Topics include business procedures, methods of charging, and steps involved in business formation. Use of contracts and specifications to achieve desired objectives is covered, as is marketing of professional services and promotion of the firm. A portfolio, resume and cover letter will be completed during this class.

## DE 267 ARCHITECTURAL CAD

Credits: 3 (F)

This course focuses on the application of AutoCAD to the creation of a set of residential construction drawings. Topics covered include drawing set-up, creation and plotting.

## DE 270 KITCHEN AND BATH I

Credits: 3 (F)  
Prerequisite: Completion of all 100-level technical courses.

Using the National Kitchen and Bath Association guidelines, students will learn the fundamentals of kitchen and bath design, using NKBA's drawing and presentation standards. Analysis of client needs, specifying products, creating design solutions, residential plumbing and mechanical systems, project drawing and documentation will also be covered.

## DE 271 KITCHEN AND BATH II

Credits: 3 (S based on sufficient demand)  
Prerequisite: DE 270

This studio course is a continuation of Kitchen and Bath 1, with further exploration into products, and more advanced design solutions.

## Dental Hygiene (DH)

### DH 101 INTRODUCTION TO DENTAL HYGIENE/PRECLINIC

Credits: 2 (F)  
30 Lecture Hours  
Prerequisite: Acceptance into the Dental Hygiene Program

An introductory course in preoperative and clinical dental hygiene concepts. The assessment phase of patient care as well as the theory of basic dental hygiene instrumentation will be emphasized.

## **DH 102 INTRODUCTION TO DENTAL HYGIENE/PRECLINIC LAB**

Credits: 2 60 Lab Hours (F)

Prerequisite: Acceptance into the Dental Hygiene Program

This course enables students to perform clinical dental hygiene procedures explored in DH 101. The basic clinical skills used during patient assessment and basic dental hygiene instrumentation will be emphasized.

## **DH 111 INFECTION CONTROL AND DISEASE PREVENTION**

Credits: 2 30 Lecture Hours (F)

Prerequisite: Acceptance into the Dental Hygiene Program

This course introduces the infection and hazard control procedures necessary for the safety of dental professionals and their clients during the practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic techniques, infectious diseases, and OSHA standards.

## **DH 118 ORAL ANATOMY FOR HYGIENISTS**

Credits: 3 45 Lecture Hours (F)

Prerequisite: Acceptance into the Dental Hygiene Program

The majority of this course includes content in head, neck, and dental anatomy. Oral tissue embryology, histology, and physiology are also introduced and general anatomical concepts are reviewed by the instructor. Anatomic design and tooth numbering systems are emphasized as a supplement to the dental anatomy portion. Students successfully completing this course will be able to apply basic oral anatomic theory to laboratory and clinical settings.

## **DH 122 ORAL RADIOLOGY/LAB**

Credits: 3 15 Lecture Hours / 30 Lab Hours (S)

Prerequisite: Acceptance into the Dental Hygiene Program

This course provides a basic understanding of the fundamentals of dental radiology including processing image receptors, and production of x-rays. Emphasis is placed on radiation biology and hygiene. Hands-on experience with both traditional and digital radiographic techniques utilizing mannequins to develop skills in exposing and processing radiographs as well as providing experience in interpreting actual radiographs. Introduction to interpretation of radiographs for exposure and processing errors as well as normal radiographic anatomy and common diseases of the teeth and bones will also be studied

## **DH 123 RADIOGRAPHIC INTERPRETATION**

Credits: 1 15 Lecture Hours (S)

This course is a continuation of DH 122; Oral Radiology. The course will provide the skills needed to properly interpret and read what is revealed by a radiograph. Interpretation is an explanation of what is viewed on a radiograph. Proper interpretation of dental radiographs can function as a diagnostic and educational tool for treatment planning.

## **DH 130 DENTAL MATERIALS**

Credits: 2 15 Lecture Hours / 30 Lab Hours (F)

Materials most often used in dentistry are studied, focusing on the characteristics, physical properties, instruction on manipulation, and practical application of each material. Safety precautions relating to each material and procedure are emphasized.

## **DH 150 CLINICAL DENTAL HYGIENE THEORY I**

Credits: 2 30 Lecture Hours (S)

This course includes basic theory in the practice of dental hygiene. Topics include deposit/removal, patient education, fluorides, planning for dental hygiene treatment, including responding to medical/dental emergencies; charting and clinical records and procedures.

## **DH 151 CLINICAL DENTAL HYGIENE PRACTICE I**

Credits: 4 180 Clinical Hours (S)

Practice in beginning instrumentation and patient assessment in providing an oral prophylaxis, to accompany DH 150.

## **DH 160 PERIODONTOLOGY I**

Credits: 3 45 Lecture Hours (S)

An introduction to the science and management of periodontal diseases. Emphasis on the etiology and classification of the disease, along with an overview of the anatomy and histology of periodontal structures and dental accretions. The dental hygienists role in the recognition, prevention, and therapeutic procedures of the disease will be explored. This course will correlate theory with clinical activities in DH 151.

## **DH 165 ORAL HISTOLOGY AND EMBRYOLOGY**

Credits: 2 30 Lecture Hours (S)

A study of tissue morphology, embryonic development, and histologic features of the face and oral cavity.

## **DH 201 PERIODONTOLOGY II**

Credits: 2 (SU)

This course is a continuation of DH 160; Periodontology I. The course is an advanced study of periodontology with special emphasis on various treatment modalities and their rationale in clinical dentistry. The course will include discussion on periodontal disease progression, treatment plan sequence, instrumentation and antimicrobials used to decrease periodontal disease progression, treatment plan sequence, instrumentation and antimicrobials used to decrease periodontal pocket depth. This course will correlate with DH 210 and DH 211.

## **DH 210 CLINICAL DENTAL HYGIENE THEORY II**

Credits: 2 30 Lecture Hours (SU)

A continuation of DH 150, this course increases the emphasis on the principles of instrumentation in periodontal therapy. Topics will include ultrasonic scaling, air polishing, and effective ergonomic principles. Students will be introduced to the professional portfolio process and selection of case patient. Theory background is used to support activities in DH 211.

## **DH 211 CLINICAL DENTAL HYGIENE PRACTICE II**

Credits: 4 180 Clinic Hours (SU)

A continuation of DH 151, this course provides additional practical experience in clinical patient treatment with an emphasis on early periodontal disease and subgingival deposits. Offered in conjunction with DH 210.

## **DH 215 GENERAL AND ORAL PATHOLGY**

Credits: 3 45 Lecture Hours (F)

Pathology is the science that studies diseases. This course will present various pathologic processes; including pathogenesis, etiology, inflammation, tumor development, systemic manifestations, and developmental disturbances. This course emphasis is the study of oral diseases and the recognition of their conditions. Students will utilize this information during their clinical practice.

## **DH 220 DENTAL NUTRITION HEALTH**

Credits: 3 45 Lecture Hours (F)

Prerequisite: Acceptance into the Dental Hygiene Program

To understand the science of human nutrition and the application of basic nutrition principles to achieve optimal nutritional status throughout the life cycle. To understand the impact of nutrition on oral health and the impact of oral health on nutritional status. Enrollment limited to dental hygiene students and students with instructor permission.

# YOUR College - COURSE DESCRIPTIONS

## DH 230 COMMUNITY DENTAL HEALTH AND EDUCATION

Credits: 2 30 Lecture and Community Service Hours (S)  
A presentation of various methods and material used in community dental health education. The course provides an understanding of basic research and statistical concepts needed for sound community health practices. Emphasis on the use of evidenced based philosophy for acquiring, assessing, interpreting, critically analyzing, and incorporating scientific literature into community health practices. Field assignments in selected social settings and projects will encourage student participation in community dental health care.

## DH 235 PROFESSIONAL ISSUES & ETHICS IN DENTAL PRACTICE

Credits: 2 30 Lecture Hours (S)  
A study of the legal restrictions and ethical responsibilities associated with the practice of dental hygiene and dentistry.

## DH 240 LOCAL ANESTHESIA / NITROUS OXIDE THEORY AND LAB

Credits: 2 15 Lecture Hours and 30 Lab Hours (S)  
An integration of anatomy, physiology, and an introduction to pharmacology and emergency procedures as they relate to the administration of local anesthesia. Selection of proper anesthetic solutions to facilitate pain management and their specific related needs. Laboratory sessions are integrated with didactic material to develop competency in administering local anesthetic.

## DH 241 GERONTOLOGY & SPECIAL NEEDS PATIENTS

Credits: 2 30 Lecture Hours (F)  
This course provides preparation for clinical experience when designing treatment for the geriatric and special needs patient. Innovative patient management and counseling will be included.

## DH 250 CLINICAL DENTAL HYGIENE THEORY III

Credits: 1 15 Lecture Hours (F)  
A continuation of DH 210, this course expands beyond the basic concepts of dental hygiene theory with exposure to more difficult oral conditions and various modes of treatment. Topics include: effective patient communication, cultural diversity, dental hygiene diagnosis, dental hygiene process of care, nonsurgical periodontal therapy, root morphology and advanced instrumentation. Students will be required to continue formulation of the case paper. Theory background is used to support all clinical activities in DH 251.

## DH 251 CLINICAL DENTAL HYGIENE PRACTICE III

Credits: 5 225 Clinical Hours (F)  
A continuation of DH 211, this course provides clinical activities with increased patient difficulty exhibiting moderate to advanced periodontal involvement and moderate deposits along with increased patient load. This course is offered in conjunction with DH 250.

## DH 280 CLINICAL DENTAL HYGIENE THEORY IV

Credits: 1 15 Lecture Hours (S)  
A continuation of DH 250, this course includes advanced Dental Hygiene theory that will increase the student's knowledge of the profession. Emphasis is directed toward dental hygiene process of care, treatment planning and client case presentation. Considerable attention is also spent in the areas of practice management and professional development. Theory background is used to support all activities in DH 281. In addition, this class will provide preparation for State and Regional Board Examinations.

## DH 281 CLINICAL DENTAL HYGIENE PRACTICE IV

Credits: 5 225 Clinical Hours (S)  
A continuation of DH 251, this course provides multiple clinical activities focused in time management, increased periodontally involved clients and satisfactory completion of skill assessments. The course will challenge the student's critical thinking to design a personal learning contract to reflect their needs for successful completion. In addition this course will offer opportunities for the student to participate in various off-campus experiences. This course is offered in conjunction will DH 280.

## Drafting (DRFT)

### DRFT 131 TECHNICAL GRAPHICS I

Credits: 4 (F)  
Emphasis in this course is placed on knowledge and skills needed to produce drawings and understand basic drafting theory. Topics developed on the board include sketching, lettering, instruments, scaling, applied geometry, orthographic projection, dimensioning, applied technical mathematical relations, primary auxiliary views, sections, threads, and weld symbols.

### DRFT 132 DESCRIPTIVE GEOMETRY

Credits: 3 (S)  
Prerequisite: DRFT 131, or instructor approval.

Advanced theory and practices in descriptive geometry construction and pattern development are covered in this course in preparation for advanced courses in Design Drafting.

### DRFT 156 INTRODUCTION TO CAD

Credits: 3 (S)  
A systems-oriented course is designed to introduce students to the concepts, techniques, and applications of PC-based computer-aided drafting that will allow them to create drawing files and download files for hard copies. Command structure, coordinate systems, text dimensions, and plotting will be covered.

### DRFT 201 RESIDENTIAL DRAFTING

Credits: 3 (F)  
Prerequisite: DRFT 132

The development of the principles in construction drawings of an average wood frame residential structure is the basis of this course. A complete set of working drawings will be developed.

### DRFT 205 MACHINE DRAFTING

Credits: 3 (S)  
Prerequisite: DRFT 131

This course is a study and application of standards used for producing working drawings, including the fundamentals of geometric dimensioning and tolerance. Both detail and assembly drawings will be produced.

### DRFT 242 BLUEPRINT READING AND MATERIAL ESTIMATION

Credits: 3 (S)  
This is an introduction to print reading and material estimation. Students will interpret and visualize construction drawings and do material estimation on a couple of small residential projects.

## **DRFT 244 TOPOGRAPHIC MAPPING AND GIS APPLICATIONS**

Credits: 3 (S)  
Prerequisite: DRFT 156, CIT 205

Fundamentals of mapping and geographic information systems (GIS). Includes applications of mapping projections, presentations of surveying information, and GIS methods. Mapping and GIS computer applications will be used and developed throughout the course.

## **DRFT 246 MANAGING THE CONSTRUCTION PROCESS**

Credits: 3 (S)  
Introduction to all areas construction management, combining the processes of: estimating, scheduling and/or control. Students gain knowledge of the building industry as a whole, as well as, the technical skills to manage a construction project.

## **DRFT 256 3D CAD**

Credits: 3 (F)  
Prerequisite: DRFT 156

This is a study in advanced CAD concepts and procedures to develop three-dimensional wireframe models. Emphasis will be on the creation and use of 3D primitives, surface modeling, basic solids modeling, shading techniques, and the use of animation software. Exercises will include rendered output.

## Economics (ECON)

### **ECON 102 ECONOMICS I (MACROECONOMICS)**

Credits: 3 (F based on sufficient demand)  
This course presents the principles underlying the operation of a macroeconomic system through the study of the national and world economies as a whole. Topics explored include gross domestic product, full employment, economic growth, surplus and deficits, income distribution, balance of trade, protectionism, government policies, and international trade.

### **ECON 201 ECONOMICS II (MICROECONOMICS)**

Credits: 3 (S based on sufficient demand)  
This course examines the subsystems of the economy such as the economics of the individual, the firm, and the industry. Study includes analysis of the pricing mechanism of the economy and the theories of income distribution.

## Education (EDUC)

### **EDUC 201 INTRODUCTION TO THE EDUCATIONAL EXPERIENCE**

Credits: 3 (F, S, SU)  
This class explores the profession of teaching by connecting theory to real-life experiences in the field. Students will cover the development of students, diversity, learning strategies, motivation, classroom management, assessment of learning, and construction of a professional portfolio through seminar discussions, in school observations, interviews, and personal reflection.

### **EDUC 240 INSTRUCTIONAL TECHNOLOGY**

Credits: 3 (S)  
Prerequisite: CIT 110, challenge exam, or instructor approval

Prospective teachers are introduced to the uses of technology to enhance the education experience. Students will learn to use media software common in educational settings for a variety of instruction purposes.

### **EDUC 260 MULTICULTURAL EDUCATION**

Credits: 3 (S)  
This course helps current and future teachers reflect on their own heritage and how it relates to people of other economic, social cultural, ethnic, gender, religious, and sexual orientation groupings. An emphasis is placed on democratic community building in a multicultural society.

## Educational Psychology (EDPY)

### **EDPY 220 EDUCATIONAL PSYCHOLOGY**

Credits: 3 (F, S based on sufficient demand)  
This course explores the physical, psychological, and cognitive development in students of all ages within the contexts of education, family, and society. Emphasis is given to applying brain-based research, stages of learning, and psychological factors influencing the learning process to classroom management and educational evaluation.

## Electrical, Electronics & Engineering Technology (EET)

### **EET 110 ELECTRONICS SURVEY I**

Credits: 3 (S)  
This course presents an introduction to basic concepts and terminology of electronics for the non-electronics major. Topics start with electricity and continue through everyday commercial and home applications.



## Emergency Medical Services (EMS)

### EMS 102 FUNDAMENTALS OF ADVANCED CARE

Credits: 3 (F)  
Prerequisite: Consent of faculty required.

This course provides an introduction to the practice of paramedicine and will provide the student with information regarding preparatory divisions the pre-hospital environmental, medical-legal issues, and general principles of pathophysiology.

### EMS 105 EMT-PARAMEDIC I

Credits: 3 (F)  
Prerequisite: Instructor approval required

Note: Formal acceptance into EMT-P program

This course will provide the student with reinforcement and new information concerning pre-hospital environment, pharmacology, airway management, intravenous therapy, and trauma.

### EMS 110 EMT-PARAMEDIC I/II SKILLS LAB

Credits: 2 (F)  
Prerequisite: Instructor approval required

Note: Formal acceptance into EMT-P program

This course provides the student with laboratory experience in the areas of assessment, physical examination, history gathering, basic and advanced airway management skills, pharmacology and the initiation and management of fluid therapy.

### EMS 115 EMT-PARAMEDIC II

Credits: 3 (F)  
Prerequisite: Instructor approval required.

Note: Formal acceptance into EMT-P program

This course builds upon the instructional imperatives of Paramedic I and introduces the student to various systematic medical emergencies (e.g., respiratory, cardiovascular, endocrine, and nervous system emergencies).

### EMS 120 EMT-PARAMEDIC I/II CLINICAL AND FIELD INTERNSHIP

Credits: 3 (F)  
Prerequisite: Instructor approval required, EMS 110 and EMS 115 with a grade of "C-" or higher

The clinical and field internship experience allows the student to integrate knowledge and skills from the classroom setting into actual patient care in the hospital and field domain. A student must receive a grade of "Pass" in the clinical and field internship course or will be required to repeat EMS 110 and EMS 115.

### EMS 130 FIRST RESPONDER

Credits: 3 (Under Review)  
Prerequisite: Must be 18 years of age to take certification examination

This course is the nationally recognized emergency medical entry level to the emergency services industry. The course provides didactic and practical experience concerning initial assessment and immediate management of trauma and medical patients. Successful course completion will allow the student to enter the Montana First Responder authorization process. All aspects of authorization/certification are the responsibility of the student.

### EMS 137 EMERGENCY MEDICAL TECHNICIAN BASIC (EMT-B)

Credits: 6 (F, S, SU)  
Prerequisite: Must be 18 years of age to take certification examination

This course is the nationally recommended minimum level of training for ambulance personnel and is considered the desired level of medical training by many fire departments. The course focuses on skill development in the primary responsibilities of the EMT-B, which are to bring emergency medical care to victims of emergencies, to stabilize their condition, and to transport them safely and expeditiously to an appropriate facility. This course is a combination of classroom work and practical experience. Upon successful completion of the course, graduates are eligible to sit for the Montana and National Registry certification examinations. All aspects of authorization/certification are the responsibility of the student.

### EMS 140 EMT-INTERMEDIATE I (EMT-I)

Credits: 4 (S, F based on sufficient demand)  
Prerequisite: Formal acceptance into EMT-I course, EMT-Basic National Certification, and minimum of one year patient care experience as an EMT B prior to sitting for the National Registry Certification Examination; Current certification in CPR according to AHA Healthcare Provider standards or its equivalent; approved for admissions by the Medical Director.

This course is designed to bridge a nationally perceived void between the EMT-B and EMT-P levels of certification. The EMT-I will be utilized in systems where the pre-hospital care provider is required to perform skills beyond those of the EMT-B but where EMT-P level care is unavailable or unattainable. This course will refine the life-saving skills of the EMT-B in addition to providing the student with supplementary advanced life support skills that can significantly improve the quality of pre-hospital care. Course topics will include the professional roles and responsibilities of the EMT-I as well as focusing on EMS systems, medical control, medicolegal considerations, communications, medical terminology, advanced patient assessment, airway management, and the pathophysiology of shock. Must be high school graduate or equivalent to take certification examination.



## EMS 145 ACLS PREPARATION

Credits: 1 (F)  
Prerequisite: Instructor approval required.

This course is based upon the American Heart Association course which is considered the national standard of care for advanced providers caring for cardiac patients. The program includes didactic and skills training in cardiac anatomy and physiology, acid base balance, pharmacology, cardiac rhythm interpretation, monitor/defibrillator operation, and patient care algorithms.

## EMS 146 PALS PREPARATION

Credits: 1 (S)

This course is based upon the American Heart Association course that is considered the national standard of care for advanced providers caring for pediatric patients in the arrest situation. This course includes didactic and skills training in pediatric anatomy and physiology, assessment, airway management, pharmacology, cardiac rhythm interpretation, monitor/defibrillator operation, and patient care algorithms.

## EMS 148 PRE HOSPITAL TRAUMA LIFE SUPPORT

Credits: 1 (S)

This course is designed to provide the advanced EMT with trauma specific knowledge and skills. The program emphasizes rapid recognition, management, and transportation of the critical patient. Course topics include mechanism of injury, assessment, advanced airway management, respiratory injuries and management, recognition and management of shock, intravenous therapy, head injuries, spinal injuries and special situations. The program was developed by the National Association of Emergency Medical Technicians and is utilized throughout the United States.

## EMS 155 EMT-INTERMEDIATE II

Credits: 3 (S, F based on sufficient demand)

This course is a continuation of EMT - Intermediate I. This course will refine the knowledge and skills of Intermediate I in addition to providing the student with additional advanced life support skills. Course topics will include cardiology and cardiac monitoring, Advanced Cardiac Life Support, advanced patient assessment, further advanced airway management, IV therapy and shock management.

## EMS 205 EMT-PARAMEDIC III

Credits: 3 (S)

Prerequisite: Successful completion of Paramedic I/II or Faculty approval

This course will continue with medical emergencies and focus on the acute abdomen, genitourinary, and reproductive regions. In addition, students will be introduced to anaphylactic toxicological, and environmental emergencies, as well as learn more about alcoholism and drug abuse with respect to the emergent pre-hospital arena.

## EMS 210 EMT-PARAMEDIC III/IV SKILLS LAB

Credits: 2 (S)

Prerequisite: Successful completion of Paramedic I/II or instructor approval

Co requisite: EMS 205, EMS 225

This laboratory section will focus primarily on medical assessment, emergency pharmacology calculation and administration, in addition to reinforcement of ACLS and PALS mega code imperatives. Students will complete this laboratory section with preparation for the National Registry Certification Examination.

## EMS 217 EMT-INTERMEDIATE III

Credits: 4 (S, F based on sufficient demand)

This course is a continuation of EMT-Intermediate II and is designed to emphasize the new information in the I-99 curriculum. This course will refine the knowledge and skills of Intermediate I and II in addition to providing the student with additional advanced life support skills. Course topics will include pharmacology, medication administration, cardiology and cardiac monitoring, Advanced Cardiac Life Support, advanced patient assessment, further advanced airway management, IV therapy and shock management.

## EMS 220 EMT-PARAMEDIC III/IV CLINICAL AND FIELD INTERNSHIP

Credits: 4 (S)

Prerequisite: EMS 205, EMS 225 with a grade of "C-" or higher

The clinical and field internship experience allows the students to integrate knowledge and skills from the classroom setting into actual patient care in the hospital and field domain. Students must receive a grade of "Pass" in the clinical and field internship course or be required to repeat EMS 110 and EMS 115.

## EMS 222 EMT-INTERMEDIATE I CLINICAL

Credits: 1 (S, F based on sufficient demand)

This course includes hospital and surgical center rotations as well as field internship experiences with Benefis Healthcare, Great Falls Clinic Surgery Center, Great Falls Emergency Services, Montana Community Ambulance, and Great Falls Fire/Rescue.

## EMS 225 EMT-PARAMEDIC IV

Credits: 3 (S)

Prerequisite: Successful completion of Paramedic I/II or instructor approval

This course will complete the student's investigation into medical emergencies and will focus primarily on obstetric/gynecological, neonatal, and behaviorally unstable patients. Additionally, it will be within the scope of this course to prepare the successful candidate for the rigorous National Registry Certification Examination.

## EMS 227 EMT-INTERMEDIATE II CLINICAL

Credits: 2 (S, F based on sufficient demand)

This course is a continuation of I Clinical with primary emphasis placed on hospital emergency department rotations as well as field internship experiences with Benefis Healthcare, Great Falls Emergency Services, Montana Community Ambulance, and Great Falls Fire/Rescue.



## English (ENGL)

### ENGL 114 INTRO TO LITERATURE

Credits: 3 (F,S)

This course provides the student an opportunity to study the three major literary forms – fiction, poetry, and drama including examples of works from several time periods. Selections will include works by and about minorities and women.

### ENGL 118 INTRODUCTION TO CRITICAL READING/WRITING

Credits: 4 (F,S)

Prerequisite: Qualifying placement assessment score

This class prepares those students making progress toward full admission to MSU for college-level reading and composition. The course introduces students to critical reading practices by focusing on textual analysis of non-fiction works and to writing for academic purposes by focusing on the development of the paragraph. The course also provides, in the context of the writing, a review and reinforcement of principles of English grammar and punctuation associated with successful college-level writing. The goal of this course is to develop confidence and ability to write clear and effective paragraphs and to read college-level texts.

### ENGL 119 INTRODUCTION TO COLLEGE WRITING

Credits: 4 (F,S, SU)

Prerequisite: Qualifying placement assessment score

This class prepares those students making progress toward full admission to MSU for college level reading and composition. The course introduces students to critical reading practices within thematic non-fiction, fosters student critical thinking based on textual analysis, and encourages questioning and exploration. Composing paragraphs and short essays provides a review and reinforcement of principles of English grammar and punctuation associated with successful college-level writing. Confidence and ability to write clear and effective sentences are assumed.

### ENGL 121 COMPOSITION I

Credits: 3 (F,S,SU)

Prerequisite: ENGL 119 with a grade of "C-" or higher or qualifying placement assessment score

Composition I offers a clearly defined sequential approach to writing the short essay and the research paper. Emphasis is placed on pre-writing skills, organizational techniques, development of ideas, word choice, sentence structure, referential skills, and patterns of writing-exposition, narration, description, and argumentation. Competence in basic sentence structure and writing skills at the paragraph and short essay level is assumed.

### ENGL 122 COMPOSITION II

Credits: 3 (F,S, SU)

Prerequisite: ENGL 121

A continuation of the study of the modes of composition introduced in Composition I (ENGL 121), this course emphasizes argumentation and research writing. Students will complete a variety of major essays focusing on persuasive/analysis topics including a significant research paper, accompanied by a thorough reference page. Students will be introduced to library research methods, the avoidance of plagiarism and persuasive pitfalls, and formal documentation style.

### ENGL 124 BUSINESS AND PROFESSIONAL COMMUNICATION

Credits: 3 (F,S, alternate SU)

Prerequisite: ENGL 119 with a grade of "C-" or higher, qualifying placement assessment score, or instructor approval

Students of this course develop the skills to generate clear, concise documents for the world of work. Emphasis is placed on format, tone, style, and organization of business letters, memos, and reports. Appropriate conventions for business style, punctuation, and handling of electronic communications are included. Course is taught by computer-assisted instruction.

### ENGL 210 WORLD LITERATURE I (ANCIENT THROUGH RENAISSANCE)

Credits: 3 (F, Odd Years)

Prerequisite: ENGL 121 or instructor approval

World Literature, through its survey of literature, presents a chronological and critical study of western world literature in translation, within the historical milieu of ancient times through the Renaissance. The course also introduces students to the idea that literature is both enjoyable and useful in shaping perceptions and responses in daily life. Emphasis is placed on critical thinking and reading skills using analysis of elements such as plot, setting/scene, character, language/figures of speech, symbolism, and theme. Competence in basic reading and writing skills is assumed.

### ENGL 211 WORLD LITERATURE II (17TH CENTURY TO PRESENT)

Credits: 3 (S, Odd Years)

Prerequisite: ENGL 121 or instructor approval

World Literature, through its survey of literature, presents a chronological and critical study of western world literature in translation, within the historical milieu of the enlightenment through the Twentieth Century. The course also introduces students to the idea that literature is both enjoyable and useful in shaping perceptions and responses in daily life. Emphasis is placed on critical thinking and reading skills, using analysis of element such as plot, setting/scene, character, language/figures of speech, symbolism, and theme. Competence in basic reading and writing skills is assumed.

### ENGL 214 LITERATURE OF THE WEST

Credits: 3 (S based on Sufficient Demand)

Selected readings from the literature of the Western United States from 1850 to the present are reviewed. Works range from the popular "dime" Western to A.B. Guthrie's *The Big Sky* and James Welch's *Winter in the Blood*. Poetry, drama, fiction, and essays will be included as well as exploration of "the Western" as film and television genres to assess the power of myth and the reality of history and cultures of our region.

### ENGL 217 CREATIVE WRITING

Credits: 3 (F based on Sufficient Demand)

This course provides the student an opportunity to develop creative writing skills in the context of poetry and short fiction. Students will respond to the works of published authors, including selections by and about minorities and women. Conducted in a workshop atmosphere, students will write, revise, and respond and review their original work, and then submit a final portfolio containing three revised poems and a revised short story.

## ENGL 218 CREATIVE WRITING WORKSHOP

Credits: 1 (SU)  
Prerequisite: ENGL 217 or instructor approval

This course is a 3-day pass/fail residency workshop with emphasis on poetry and short fiction. Students will explore imaginative writing during the day and critical appraisal and revision techniques in evening sessions. Students will gain experience, also, in the oral presentation of original written works.

## ENGL 220 INTRODUCTION TO NATURE LITERATURE

Credits: 3 (F, even years based on sufficient demand)

This course will survey nature literature, covering key writers and ideas of this distinctive literary form. Writers of both prose and poetry who explore the natural world and create awareness of our place within it will be featured. The concluding focus on Montana nature writers will provide a local and personal link to the genre. Student projects will expand coverage to include particular writers not covered in class readings.

## ENGL 228 STRATEGIES OF BUSINESS COMMUNICATION

Credits: 3 (F,S)  
Prerequisite: ENGL 121

Students will develop work-related skills producing both business communications and technical documents. Business letters and memos address a variety of business contexts. Instructions, technical descriptions, proposals, feasibility studies, and management plans reflect working documents that emphasize structure, format, and tone for a variety of professional audiences. This high-level course is taught by computer-assisted instruction. Entrepreneurship students should register for both BUS 260 and ENGL 228 in their last semester. On-campus offering of ENGL 228 is recommended for Entrepreneurship students.

## Fire & Rescue Technology (FRS)

### FRS 101 FIREFIGHTER I

Credits: 5 (Contact Fire Training School)  
This course requires the student to perform basic firefighter skills within the context of the fireground. Integration of skills is validated through successful completion of the State Certification Examination for Firefighter I.

### FRS 102 FIREFIGHTER II

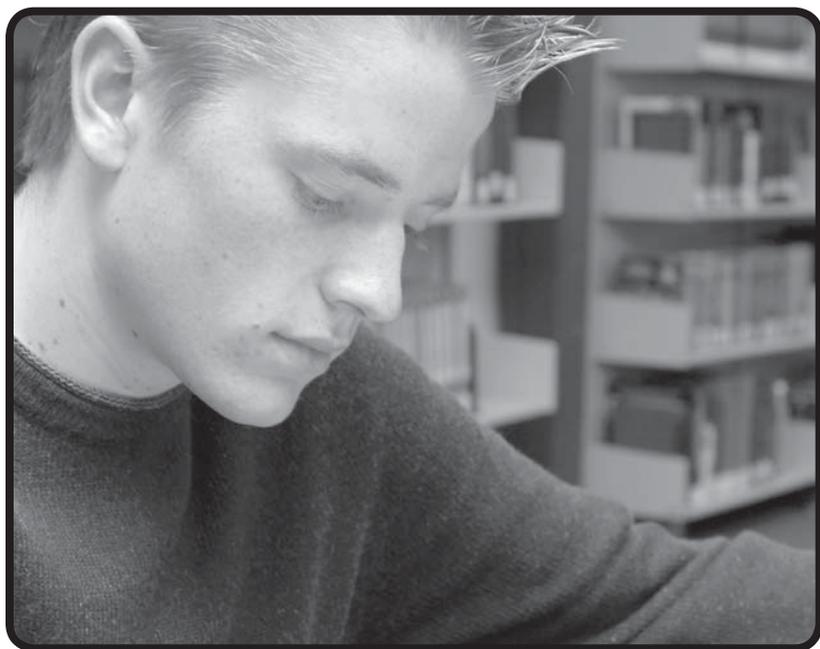
Credits: 5 (Contact Fire Training School)  
This course requires the student to perform advanced firefighter skills within the context of the fireground. Integration of skills is validated through successful completion of the State Certification Examination for Firefighter II.

### FRS 107 AIRCRAFT FIRE AND RESCUE

Credits: 3 (Contact Fire Training School)  
Provides basic knowledge of aircraft types and systems, rescue equipment, airfield characteristics, and aircraft rescue and firefighting procedures (ARFF). Must meet the requirements of the class offered through the Helena College of Technology or equivalent.

### FRS 112 FIRE INSPECTION AND INVESTIGATION

Credits: 3 (Contact Fire Training School)  
This course provides the student an overview of fire prevention activities including code enforcement, recognition of common fire hazards, and the basic techniques and procedures of fire investigation. Integration of knowledge is validated through completion of an approved project that applies to an actual situation or problem.



## FRS 241 FIRE DEPARTMENT INTERNSHIP

Credits: 3 (Contact Fire Training School and Program Advisor)  
 This 45 hour internship is designed to give the student experience in various aspects of fire department operations. The student, with approval from the fire chief and program advisor will develop a plan, goals and objectives for the internship.

## FRS 245 FIRE SERVICE TRAINING & SAFETY EDUCATION

Credits: 3 (Contact Fire Training School)  
 This course will introduce the student to adult education using contextual methodology, the basics of public fire safety education, and how education, enforcement, and prevention interact to mitigate community hazards. Students will apply their learning toward completion of an approved project.

## FRS 250 BUILDING CONSTRUCTION

Credits: 2 (Contact Fire Training School)  
 This course provides an introduction to the special characteristics of non-combustible, fire resistive, frame, and ordinary construction as they apply to fire services. The primary emphasis is on improving the fire officer's ability to ensure firefighter safety by recognizing common causes and indicators of structural collapse, component failure or other hazards related to building construction.

## FRS 265 INCIDENT MANAGEMENT AND SAFETY

Credits: 3 (Contact Fire Training School)  
 This course provides the student with an overview of the structure, function and expandability of an Incident Management System (IMS) as well as the command skills necessary to effectively utilize an IMS, guidelines and practice in applying an IMS, resources for implementation of a departmental IMS, and techniques and approaches related to firefighter safety and survival. Students will complete an approved project to demonstrate integration of learning.

## FRS 270 TACTICAL OPERATIONS AND COMPANY MANAGEMENT

Credits: 5 (Contact Fire Training School)  
 NFPA 1021 Fire Officer 1: This intensive 80 hour course teaches the skills required to succeed at the first level of fire service supervision (NFPA 1021, level 1). Success in the course and testing results in certification as a Fire Officer 1. Simulations are used for both incident management and human relations skills.

## FRS 285 HAZARDOUS MATERIALS

Credits: 5 (Contact Fire Training School)  
 NFPA 472 Hazardous Materials Technician: This intensive 80 hour class teaches the skills required to perform at the hazardous materials technician level (NFPA 472).

## FRS 290 WILDLAND FIRE PROTECTION

Credits: 3 (Contact Fire Training School)  
 All classes offered through Montana DNRC. Refer to MT DNRC for course descriptions.

## FRS 291 HYDRAULICS AND WATER SUPPLIES

Credits: 3 (Contact Fire Training School)  
 Covers the scope of water supply operations in the fire service. Includes pre-planning operations, water supply requirements, source options, delivery systems and options, and hydraulic calculations.

## Geology (GEOL)

### GEOL 101 INTRODUCTION TO GEOLOGY/LAB

Credits: 4 (3 lecture, 1 lab) (F,S based on Sufficient Demand)  
 This course is an introduction to geologic principles, with an emphasis upon geologic processes (plate tectonics, mountain building, and weathering); rock types (igneous, sedimentary, and metamorphic); and geologic hazards (volcanoes and earthquakes). Some time will be spent discussing geologic time; water and mineral resources; landforms; and glaciers. The laboratory portion of this course will include mineral and rock identification; topographic map reading; basic interpretation of geologic maps; and other activities dealing with topics covered in lecture. It is strongly recommended that students have good basic algebra skills.

## Health & Human Development (HHD)

### HHD 106 DRUG & HEALTH ISSUES FOR EDUCATORS

Credits: 3 (F, S, SU)  
 This course is a survey of drug education and health concerns for educators of school-aged children, including topics required by Montana's Board of Public Education for health-related teacher education.

## Health Information Technology (HIT)

### HI 132 HEALTH DATA CONTENT AND STRUCTURE

Credits: 3 (F, S, SU)  
 Prerequisites or Co-requisites: AH 185, BIO 127  
 This course provides orientation to the health information department and its organization interrelationships in healthcare facilities. This course also covers the content and format of the health record (both conventional and alternative formats), quantitative and qualitative analysis of the record according to regulatory and accreditation standards, numbering, filing, retention, storage, and destruction of records. Application will be provided using extensive discussion and assignments designed to approximate real life situations.

### HI 156 LEGAL AND REGULATORY ASPECTS OF HEALTHCARE

Credits: 3 (S, others based on sufficient demand)  
 Prerequisites: ENGL 119 or higher  
 This course covers basic knowledge of the legal, regulatory, and ethical aspects of healthcare including: doctrines, principles, and processes of civil law; state licensure and national accreditation standards; and professional requirements for personal liability, confidentiality, and documentation of the health record. Application will be provided using extensive discussion and assignments designed to approximate real life situations.

### HI 210 HEALTHCARE STATISTICS

Credits: 2 (SU, others based on sufficient demand)  
 Prerequisites or Co-requisites: MATH 103 or MATH 104  
 This course will include gathering, compilation, and computing of healthcare-related statistics, use of research, surveys, and statistical methods for developing healthcare data into information for various requesters. Application will be provided using extensive discussion and assignments designed to approximate real life situations.

## HI 225 HEALTH INFORMATION MANAGEMENT

Credits: 3 (F, others based on sufficient demand)  
Prerequisite or Co-requisite: HI 132

General and financial management topics are studied in this course. The management functions of planning, organizing, directing, and controlling are related to the healthcare environment. Specific healthcare examples of budgeting, managerial accounting and selection, procurement, and maintenance of equipment and supplies are provided through extensive application of healthcare-related case studies and student projects.

## HI 236 ICD CODING

Credits: 3 (F,S)  
Prerequisites or Co-requisites: BIO 127, AH 201

This course covers basic and intermediate levels of theory and application of ICD-CM principles and guidelines for coding and sequencing diagnoses and procedures. Students perform basic and intermediate coding using real health records, case studies, and scenarios. Application will focus on book coding with a brief overview of encoder software. This coding class requires hands-on coding skills, knowledge of basic use of applicable coding books.

## HI 237 CPT CODING

Credits: 3 (S, others based on sufficient demand)  
Prerequisites or Co-requisites: HI 236

This course covers basic and intermediate levels of theory and application of CPT principles to code procedures documented in healthcare records. Students perform basic and intermediate coding using real health records, case studies, and scenarios. HCPCS coding is also covered. Application will also include book and an introduction to encoder software. This coding class requires hands-on coding skills, and knowledge of basic use of applicable coding books.

## HI 240 CLINICAL QUALITY ASSESSMENT

Credits: 3 (SU, others based on sufficient demand)  
The principles and procedures of quality, utilization, risk, and compliance processes used to improve the quality of patient health care are taught in this course. Quality assessment and improvement standards and requirements of licensing, accrediting, fiscal and other regulatory agencies are presented. Methods for identifying variations and deficiencies for follow-up action will be achieved using extensive discussion and assignments designed to approximate real life situation.

## HI 245 SIMULATED LAB - PRACTIUM PREPARATION

Credits: 2 (F)  
Prerequisite: Approval of the program director.

Lab based course where students utilize the AHIMA Virtual Lab. The Virtual Lab exposes students to software utilized in Health Information Management. Professionalism in the workplace will also be covered. This is a preparatory course for the HIT practicum (HI 270).

## HI 256 INTERMEDIATE ICD CODING

Credits: 3 (S, SU)  
Prerequisites or Co-requisites: HI 236, HI 237

Basic understanding of diagnostic and procedural coding principles should already be established. The course requires interpreting ICD-9-CM coding and reporting guidelines to sequence and assign appropriate diagnostic codes for both inpatient and various outpatient settings. Compliance issues associated with various IPPS reimbursement systems such as MS-DRGs, as well as APCs are covered. Encoder software will complement the ICD-9-CM manual in the application of coding processes. Clinical information will be interpreted from brief case studies and progress to the use of a patient's complete health record.

## HI 257 INTERMEDIATE CPT CODING

Credits: 3 (SU, others based on sufficient demand)  
Prerequisite: HI 236, HI 237

Basic understanding of the CPT, ICD-CM, coding principles should already be established. This advanced course will cover medical necessity, coding issues for specific body systems, and for general conditions. Intensive coding application will be achieved through the use of real health records, case studies, and scenarios. Application will include the use of encoder software. DRGs, APCs, RUGs, RBRVs, and the Correct Coding Initiative (CCI) will also be covered in this class. This coding class requires hands-on coding skills, and knowledge of basic use of applicable coding books.

## HI 270 PROFESSIONAL PRACTICE EXPERIENCE

Credits: 2 (S, SU)  
Prerequisite: Approval of the program director.

Students in this course will gain professional practice experience in their program of study. Students create written records of their experiences and will complete assigned projects as indicated in their Professional Practice Experience Manual. This course is scheduled for 80 hours off campus. Each student will be responsible for their own transportation to and from the health care facility and any necessary living expenses.

## HI 292 TOPICS IN HEALTH INFORMATION TECHNOLOGY

Credits: 3 (S)  
Prerequisite or Co-requisites: HI 270

The course provides a forum for students to prepare for the Registered Health Information Technician (RHIT) national examination sponsored through AHIMA. Reviewing and integrating new knowledge, regulations, and standards in the field of health information technology will be achieved. Guidance on the completion of job applications, preparing a resume, writing cover and follow-up letters, and job interviews (as both applicant and interviewer) are studied and practiced.

## HI 295 OVERVIEW OF HEALTH INFORMATICS SYSTEMS

Credits: 4 (F, others based on sufficient demand)  
Suggested Prerequisites: AH 185, CIT 110

This course will cover the principles of analysis, design, evaluation, selection, acquisition, and utilization of information systems in healthcare. Also included in this course are the technical specifications of computer hardware, software, networks, and telecommunications. Furthermore, this course will provide an understanding of technology's role in healthcare. The course will emphasize the intellectual use of information strategic planning, decision support, program management, high quality patient care, and continuous quality improvement. Application will be provided using extensive discussion and assignments designed to approximate real life situations.



## History (HIST)

### HIST 103 HISTORY OF THE UNITED STATES I (TO 1865)

Credits: 3 (F)  
 This course surveys the history of the United States from the era of discovery to the Colonial Period and through the Civil War. Topics include the political, social, economic, cultural, and diplomatic developments that contributed to the formation of the North American civilization and to the position of the United States in the world's community of nations.

### HIST 104 HISTORY OF THE UNITED STATES II (1865 TO PRESENT)

Credits: 3 (S)  
 This course is a survey of American history since the Civil War. The focus of the course will be on why events happened and what meaning they had for today's United States. The role of individuals and groups will be as important as the functioning of the more depersonalized economic and political forces of history. Themes of urbanization, industrialization and ethnicity will be emphasized. This course will stress social history as well as traditional political history.

### HIST 106 HISTORY OF WESTERN CIVILIZATION I

Credits: 3 (F)  
 This course examines the major political, economic, and cultural developments of western civilization from its inception in the Fertile Crescent in the fourth millennium B.C. through the era of the Renaissance and Reformation in the 16th Century.

### HIST 107 HISTORY OF WESTERN CIVILIZATION II

Credits: 3 (S)  
 This course examines the major political, economic, and cultural developments of western civilization from the 17th century to the present.

### HIST 210 MONTANA HISTORY

Credits: 3 (F, S, SU)  
 This course is a study of the major political, social, cultural and economic developments that have contributed to the formation of Montana and to Montana's place within the region, the nation, and the world, from prehistoric times to the present.

### HIST 215 THE CIVIL WAR AND RECONSTRUCTION

Credits: 3 (S based on sufficient demand)  
 This course analyzes the causes of the Civil War, traces the military and civilian events of the war itself and considers the war's aftermath as embodied by Reconstruction, the incorporation of the American west and social climate of the Gilded Age.

## Humanities (HUM)

### HUM 242 GENDER AND EQUALITY

Credits: 3 (S based on sufficient demand)  
 The human cultural role of gender is examined in relation to historical perspectives, business, social and familial organizations, world views, technology, and perception of self.

### HUM 244 AMERICAN CULTURAL VALUES

Credits: 3 (F)  
 This course surveys change and continuity in American cultural traditions, values, and beliefs from the perspectives of familial, social, and economic organizations. Explores how values and beliefs have been shaped and modified in America's rise as a world power in the context of shifting demographics, class relations, and world economies.

## Mathematics (MATH)

### MATH 065 PRE-ALGEBRA ~ THIS CLASS OFFERED AT THE COT IN BOZEMAN

Credits: 4 (F, S, SU)  
 Pass/Fail Basis

Basic concepts relating to fractions, decimals, ratios, proportions, percent, simple equations, topics of signed numbers, and 1-variable linear equations are offered as a review and/or preparation for further studies in mathematics.

### MATH 085 PRE-ALGEBRA

Credits: 4 (F, S, SU)  
 Pass/Fail Basis

Basic concepts relating to fractions, decimals, ratios, proportions, percent, simple equations, topics of signed numbers, and 1-variable linear equations are offered as a review and/or preparation for further studies in mathematics.

### MATH 100 MATH FOR THE TRADES

Credits: 3 (F, S)  
 This course presents basic mathematical topics as they are applied in a trades program. Topics covered include: use of measuring tools, measurement systems, dimensional arithmetic, percent, proportion, applied geometry, basic trigonometry. NOTE: This course is intended for specific programs and does NOT provide sufficient Pre-Algebra material to serve as a prerequisite for students wanting to take additional mathematics.

### MATH 101 INTRODUCTORY ALGEBRA ~ THIS CLASS OFFERED AT THE COT IN BOZEMAN

Credits: 4 (F, S, SU)  
 Prerequisite: Qualifying placement assessment score within the past 3 years or instructor approval, MATH 065

Introductory Algebra initiates development in students' ability to organize thought processes and systematically solve problems while preparing students for studies in other courses. Course emphasis includes manipulation of variables, exponential applications, introduction to and factoring of polynomials, solving equations, systems of equations, and radicals. This course is intended for students who have not studied algebra but have a firm background in basic mathematics or who wish it as a review.

## MATH 103 INTRODUCTORY ALGEBRA

Credits: 4 (F,S, SU)  
Prerequisite: Qualifying placement assessment score within the past 3 years or instructor approval, MATH 085

Introductory Algebra initiates development in students' ability to organize thought processes and systematically solve problems while preparing students for studies in other courses. Course emphasis includes manipulation of variables, exponential applications, introduction to and factoring of polynomials, solving equations, systems of equations, and radicals. This course is intended for students who have not studied algebra but have a firm background in basic mathematics or who wish it as a review.

## MATH 104 BUSINESS MATHEMATICS

Credits: 4 (F,S,SU)  
Prerequisite: Qualifying admission assessment score within the past 3 years or consent of faculty, MATH 085

Students in this course will examine the mathematics of business ownership and will demonstrate an understanding of business decisions. Concepts include marketing, payroll, cash flow, simple and compound interest, credit, promissory notes, insurance, financial statements, ratio analysis, depreciation, annuities, and inventory valuation.

## MATH 108 ALGEBRA FOR COLLEGE STUDENTS

Credits: 4 (F,S)  
Prerequisite: MATH 103 or qualifying placement assessment score within the past 3 years

This course offers a review of elementary algebra with further emphasis on systems of equations, determinants, systems of inequalities, rational expressions, radical expressions, complex numbers, quadratic equations, and exponential and logarithmic functions.

## MATH 120 MATH FOR ELEMENTARY TEACHERS I

Credits: 3 (F, S based on Sufficient Demand)  
Prerequisite: MATH 103 or qualifying placement assessment score within the past 3 years

This course is an introduction to problem solving, sets, functions, logic, numerations systems as a mathematical structure, introductory number theory, rational and irrational numbers and probability for prospective elementary school teachers.

## MATH 121 MATH FOR ELEMENTARY TEACHERS II

Credits: 3 (S)  
Prerequisite: MATH 120

Introductory geometry, constructions, congruence and similarity, concepts of measurement, coordinate geometry, problem-solving are revisited, and computer applications for prospective elementary school teachers are reviewed.

## MATH 130 PRECALCULUS ALGEBRA

Credits: 4 (F,S)  
Prerequisite: MATH 108 with a grade of "B-" or higher or qualifying placement assessment score within the past 3 years.

An extended study of algebra preparing students for further work in mathematics in particular, Calculus. Course topics include the fundamental properties of real and complex numbers, functions (polynomial, rational, radical, exponential and logarithmic), conics, matrices, determinants, sequences, series and the binomial theorem.

## MATH 131 PRECALCULUS TRIGONOMETRY

Credits: 3 (S)  
Prerequisite: MATH 108 with a grade of "B-" or higher or qualifying placement assessment score within the past 3 years.

An extensive look at trigonometric functions and identities, Law of Sines and Cosines, polar coordinates, inverse functions, vectors, and parametric equations is the basis of this course.

## MATH 150 MATH FOR LIBERAL ARTS

Credits: 3 (F,S)  
Prerequisite: MATH 103 with a grade of "B-" or higher, Math 108 with a grade of "C-" or higher, or qualifying placement assessment score within the past 3 years

This course exposes students to topics in applied and pure mathematics directly connected to modern society. Topics include: Polya's techniques for problem solving, number theory, logic, algebraic models, optimization, linear programming, set theory, probability and statistics.

## MATH 161 COLLEGE ALGEBRA W/ SCIENCE APPLICATIONS

Credits: 3 (F,S)  
Prerequisite: MATH 103 with a grade of "B-" or higher, Math 108 with a grade of "C-" or higher, or qualifying placement assessment score within the past 3 years

This course prepares health science students for the mathematics required in their profession. Topics investigated include: inductive reasoning; logic; mathematical number systems; linear, quadratic, exponential, and logarithmic functions; graphing; probability; statistics; English, Apothecary and Metric systems and conversions; dosage calculations; and dimensional analysis. Utilizing these areas, the course also provides students with clinical applications.

## MATH 181 CALCULUS I

Credits: 4 (F)  
Prerequisites: MATH 130 and MATH 131 or qualifying placement assessment score within the past 3 years

Functions, elementary transcendental functions, limits and continuity, differentiation, applications of the derivative, and curve sketching studied.

## MATH 182 CALCULUS II

Credits: 4 (S)  
Prerequisite: MATH 181  
Integration theory, methods of integration, applications of the integral, Taylor's theorem, infinite sequences, and series are studied.

## MATH 216 BASIC STATISTICS

Credits: 4 (F,S)  
Prerequisite: MATH 108 or MATH 161 with a grade of "C-" or higher, or qualifying placement assessment score within the past 3 years

This course presents concepts, principles, and methods of statistics from two perspectives: descriptive and inferential. Statistical topics include organizing data, sampling, and measures of central tendency, probability, correlation, random variables, hypothesis testing, confidence intervals, and inference.

# YOUR College - COURSE DESCRIPTIONS

## **MATH 217 INTERMEDIATE STATISTICS**

Credits: 3 (S)  
Prerequisite: MATH 216

This course studies binomial distributions, simple and multiple linear regression, confidence intervals, F tests, and one-way analysis of variance. Statistical analyses are performed using computer software packages.

## **MATH 260 LINEAR ALGEBRA**

Credits: 4 (S)  
Prerequisite: MATH 181

This course will present the vocabulary, notation, and algebra of matrices and vectors. Systems of linear equations, matrix algebra, determinants, vector algebra, vector spaces, eigenvalues, eigenvectors, and linear transformations will be studied. Applications and mathematical technology will be incorporated.

## **Manufacturing (MFGT)**

### **MFGT 205 MANUFACTURING PROCESSES AND MATERIALS**

Credits: 3 (F)  
The fundamentals of manufacturing are introduced in this course.

Capabilities, typical applications, advantages, and limitations of material and process selection for manufacturing are topics covered.

## **Modern Language (ML)**

### **ML 121 INTRO TO AMERICAN SIGN LANGUAGE**

Credits: 3 (F,S)

In this course, the student will have an opportunity to develop a basic syntactic knowledge of American Sign Language (ASL), basic vocabulary and basic conversational skills. Vital aspects of deaf culture and community will be incorporated. The direct experience method, using ASL, will be used to enhance the learning process.

### **ML 221 AMERICAN SIGN LANGUAGE INTERMEDIATE**

Credits: 3 (F, S)  
Prerequisite: ML 121

American Sign Language (ASL) II continues the skill development started in ASL I. This course will cover instructions in the grammatical features of ASL, vocabulary development, conversational skills, and exposure to the culture of the deaf community.

## **Medical Assistant (MO)**

### **MO 138 CLINICAL PROCEDURES I**

Credits: 3 (F)  
Prerequisite/Co-requisite: Instructor approval – BIO 213 and BIO 214 with a grade of “C-” or higher

This course is designed to develop a basic knowledge of skills and practices of the allied healthcare professional assisting in a clinical setting. Units include Universal Precautions, patient preparation, preparing for and assisting with examinations, infection control, surgical asepsis, pharmacology, and drug administration.

### **MO 238 CLINICAL PROCEDURES II**

Credits: 3 (S)  
Prerequisite: MO 138 with a grade of “C-” or higher

This course is designed to introduce students to additional skills and practices of the allied healthcare professional assisting in a clinical setting. Units include laboratory orientation, collecting and handling laboratory specimens, hematology, physical therapy, electrocardiography, emergencies, first aid, and nutrition.

### **MO 241 CLINICAL REVIEW**

Credits: 1 (SU)  
Corequisite: MO 242

This seminar is designed for students participating in MO 242. It features discussions of clinical topics and situations.

### **MO 242 EXTERNSHIP**

Credits: 4 (SU)  
Prerequisite: Instructor approval and MO 138, MO 238 with a grade of “C-” or higher

Students gain practical experience in clinical medical environments where they have an opportunity to perform various clinical and administrative procedures under supervision. Students are expected to use competencies required for the medical assistant.

## **Music (MUS)**

### **MUS 102 FUNDAMENTALS OF MUSIC**

Credits: 3 (F)  
Designed for the student with little or no musical background, this course introduces the fundamental elements of music reading and notation. It includes note and rhythmic reading, scales, intervals, and chords.

### **MUS 210 MUSIC APPRECIATION**

Credits: 3 (F, SU)  
This course is a comprehensive introduction to the theory, history, and literature of music of Western Civilization. The course examines musical styles through several time periods and is designed to develop the students’ aural acuity as well as their intellectual understanding of music as an important contribution to Western culture.

### **MUS 212 AMERICAN MUSIC**

Credits: 3 (S, SU based on sufficient demand)  
This course will survey musical idioms, styles and trends developed in the United States from 1492 to the present. Included are folk, sacred, country and western, blues, pop, rock and roll, jazz, and fine art music.

### **MUS 214 WORLD MUSIC**

Credits: 3 (F, S)  
World Music introduces the music of varied cultures of the world by presenting the music within its historical and societal contexts. The course includes topics and musical surveys from Asia, Africa, the Americas and Europe.

## Native American Studies (NAS)

### NAS 201 MONTANA'S AMERICAN INDIANS

Credits: 3 (F, S, SU)  
This course focuses on the interactions of Montana's American Indians in socioeconomic structures based on historical and current perspectives including cultural world views, religion, reservations, treaties, vested rights, sovereignty, contemporary tribal governments, and socioeconomic problems.

### NAS 215 NATIVE AMERICAN RELIGIOUS TRADITIONS

Credits: 3 (F based on sufficient demand)  
This course will examine, explore, and describe selected Native American Religious systems focusing on origins, world views, religious beliefs, traditions and ceremonies, sacred songs and dance, and the way they have been affected by western civilization. A major focus will be on the Northern Plains People.

## Nursing (NURS)

### NURS 100 INTRODUCTION TO NURSING

Credits: 1 15 Hours Lecture (F,S,SU)  
The purpose of this course is to initiate the student to the roles/functions/expectations of the nurse. The course will explore nursing history, current views of nursing, different types of nursing occupations, and educational requirements. The course will expose the students to issues surrounding the profession of nursing.

### NURS 140 PHARMACOLOGY

Credits: 3 45 Hours Lecture (F)  
This course introduces the principles of pharmacology, including drug classifications and their effects on the body. The course reflects general principles, theories, and facts about drugs and their administration. Principles of action, uses, side effects, and patient education are taught to facilitate the student's learning in the clinical setting. Specific drug information is discussed in relation to assessment, nursing diagnosis, patient monitoring, interventions, patient education and evaluation of safe and effective drug therapy. Emphasis is placed on utilizing the nursing process related to pharmacology and the nurse's ability to think critically.

### NURS 150 FUNDAMENTALS OF NURSING

Credits: 7 60 Hours Lecture / 90 Hours Lab (F)  
This course introduces students to the clinical skills essential for the nursing role. Also includes complex concepts and behaviors of nursing roles within the context of the nursing process, holistic care and health care. The course emphasizes the theoretical and practical concepts of nursing skills required to meet the needs of patients in a variety of clinical settings. Students will be given the opportunity, in a lab setting, to practice these nursing skills.

### NURS 250 GERONTOLOGY

Credits: 2 15 Hours Lecture / 45 Hours Clinical (F)  
This course will focus on the nursing management of the older adult. Theories of gerontology and aging will be emphasized. The course will examine the principles of gerontology, challenges of aging, nutrition, pharmacology, pain, elder mistreatment, dying, and physiological basis of practice. The course will emphasize a holistic approach necessary to provide care for the older adult in diverse care settings. Ethical issues

related to the care of the older adult will be explored. In the clinical component of this course, students will be able to safely deliver essential basic skills and show knowledge and concern to patients in the geriatric setting.

### NURS 260 CORE CONCEPTS OF ADULT NURSING

Credits: 7 60 Hours Lecture / 135 Hours Clinical (S)  
This course prepares the student to care for patients experiencing common, well-defined health variations in settings where stable patients are anticipated. Students are introduced to standardized nursing procedures and customary nursing and collaborative therapeutic modalities. The course guides the student through the nursing process when planning nursing care for the common diseases of the following systems: urinary, endocrine, Integumentary, neurological, sensory, gastrointestinal, respiratory, cardiovascular, blood disorders, cancer, sensory, and musculoskeletal. The clinical component provides advancement from in-depth to complex nursing skills, knowledge, and attitudes necessary to care for the acutely ill patient.

### NURS 270 CORE CONCEPTS OF MATERNAL/CHILD

Credits: 3 30 Hours Lecture / 45 Hours Clinical (S)  
Emphasizing caring, communication, professionalism, and critical thinking, the course provides information about fetal development, prenatal and postnatal care of the mother and newborn. Role of the nurse in meeting the needs of the family is emphasized. Clinical application of caring for the mother and newborn will allow the student to demonstrate acquired knowledge. The course also includes growth and development patterns as well as care of the well and sick child.

### NURS 280 CORE CONCEPTS OF MENTAL HEALTH

Credits: 2 30 Hours Lecture (S)  
This course will explore physiological, psychological, sociocultural, spiritual and environmental factors, associated with Mental Health/Illness. Focus will be placed on psychotherapeutic management in the continuum of care, milieu management and special populations with emphasis on individuals, families and communities.

### NURS 290 LEADERSHIP ISSUES

Credits: 2 15 Hours Lecture / 45 Hours Clinical (SU)  
This capstone course provides the Practical Nursing student information regarding the current status of practical nursing. This course assists the nursing student to bridge the role between student and employee. Leadership/management skills, continuing educational needs, licensure requirements, job applications, advanced educational programs and charge nurse responsibilities are included. Students will take the National League of Nursing (NLN) test and receive an application for the State Board of Nursing Examination. There is a forty-five hour clinical to provide the student the experience of organizing the care for a small group of patients (5) in an extended care setting as a patient manager.



## Office Technology (OO)

### OO 107 KEYBOARDING BASICS

Credits: 3 (F, S)  
This course is an introduction of microcomputer keyboarding techniques using the touch system. Lessons cover the keyboard, basic skills, and an introduction to common business formats.

### OO 108 ADVANCED KEYBOARDING AND FORMATTING

Credits: 3 (F, S)  
Prerequisites or Corequisite: OO 107, OO 265/266  
Students develop microcomputer keyboarding skills by completing drills designed to improve concentration, speed, and accuracy. Emphasis is also placed on formatting business documents.

### OO 111 FUNDAMENTALS OF HEALTH INSURANCE

Credits: 4 (F, SU)  
Prerequisites: AH 185  
This course is designed to introduce students to the major national medical insurance programs, including Medicare, Medicaid, Blue Cross/Blue Shield, and TRICARE. Topics covered will include plan options, carrier requirements, state and federal regulations, abstracting from source documents, manual claim form completion, legal and ethical issues, and a review of diagnostic and procedural coding. Students will also learn computerized billing procedures using a typical medical office software package.

### OO 112 ADVANCED HEALTH INSURANCE TECHNIQUES

Credits: 3 (S)  
Prerequisites: OO 111  
This course will build on topics covered in OO 111. Students will study characteristics and requirements of each type of insurance including: indemnity plans, HMOs, PPOs, Worker's Compensation (state by state variances). Students will also discuss the adjudication process, resolve reimbursement problems and respond to claims reviews and appeals. Students will use medical office software package to complete assignments.

### OO 173 COMPUTER CALCULATORS

Credits: 1 (1/2 semester) (S)  
Prerequisite: MATH 104  
Students master the touch method of entering data on the ten-key numeric keyboard. Speed and accuracy are emphasized on computer ten-keys using the desktop calculator. Ten-key functions will be used to solve common mathematical problems.

### OO 179 RECORDS MANAGEMENT

Credits: 3 (F)  
This comprehensive course introduces the complex management of records including setting up practical systems utilizing the four basic formats: alphabetic; subject; numeric; and geographic. Techniques in managing information and systems are discussed; advantages and disadvantages of systems are analyzed and compared; forms management is utilized; controls involving requisitioning, charging, following-up, transferring, storing, and disposing of information are studied.

### OO 180 LEGAL STUDIES

Credits: 4 (F)  
Terms commonly used in the legal profession are introduced. Students will learn to define the terms and use them in legal context. In addition, students will be introduced to the legal field through the study of general law office procedures, ethics, court system and structure, civil litigation, and criminal law, and legal document format. This course is also designed to equip students with knowledge of procedures and with the basic attitudes, skills, and ethics required of a legal office employee.

### OO 220 PREPARING RESUMES

Credits: 1 (S)  
Prerequisite: Recommended course be taken during students final semester of attendance  
Students will study the components of a "winning" resume and go through the steps in preparing a resume. They will identify critical differences among traditional, scannable, and electronic resumes. Personal strengths will be identified and focused to improve marketability in targeted career areas.

### OO 221 INTERVIEWING FOR JOBS

Credits: 1 (S)  
Prerequisite: Recommended course be taken during students final semester of attendance  
This course will help the student master the art of interviews, develop strategies to market themselves, acquire successful interview techniques, navigate interview questions and answers, and utilize good follow-up moves.

### OO 241 MEDICAL OFFICE PROCEDURES

Credits: 2 (S)  
Prerequisite: AH 185, CIT 110, HI 132  
Students will utilize medical office software to perform basic administrative procedures in the medical office. These include: scheduling, managing patient accounts, and office documentation. An emphasis will be placed on professionalism, legal and ethical issues, and HIPPA standards.

### OO 255 MEDICAL TRANSCRIPTION I

Credits: 3 (S, SU)  
Prerequisite: AH 185, CIT 110, OO 107 or 108, or instructor approval  
Students are introduced to ethical considerations, rules, regulations, forms, and techniques in recording medical documents. Transcription of various medical reports is required with emphasis on competency in medical vocabulary, spelling, punctuation, and extensive usage of medical reference materials.

## OO 256 MEDICAL TRANSCRIPTION II

Credits: 3 (F)  
Prerequisites: OO 255 with "C-" or better

This course is designed to increase speed and accuracy in transcribing medical data with exposure to advanced technical language in a variety of specialties. Special attention is on speed, accuracy, production, style, and formats.

## OO 257 MEDICAL TRANSCRIPTION III

Credits: 3 (S)  
Prerequisites: OO 265 with "C-" or better

This is a capstone class in medical transcription. Students will transcribe a variety of provider-generated medical reports in all speciality areas, demonstrating progressively demanding accuracy and productivity standards. Emphasis will be placed on proofreading and correcting transcribed documents, noting and correcting inconsistencies and inaccuracies, and utilizing the AAMT Book of Style and other references appropriately. Professionalism and job seeking techniques will also be discussed.

## OO 260 MACHINE TRANSCRIPTION

Credits: 3 (S)  
Prerequisite: CIT 110, OO 265 or OO 266, or concurrent

Students review and apply grammar, punctuation, formatting, and word usage rules. Proofreading and listening skills are emphasized in the transcription of mailable business documents.

## OO 265 WORDPERFECT

Credits: 3 (S)  
Prerequisite: CIT 110, OO 107, or consent of faculty

Corel WordPerfect software is used to create documents used in academic, professional, and business environments. These functions include formatting and editing documents, revising documents, managing documents, printing documents, using projects, creating headers and footers, inserting footnotes, creating columns, formatting tables and inserting formulas, using styles, changing fonts, sorting and extracting text, merging documents, formatting macros, creating graphics, and creating charts.

## OO 266 MICROSOFT WORD 2007

Credits: 3 (F,S)  
Prerequisite: CIT 110, OO 107, or instructor approval

Word processing software is used to create documents used in academic, professional, and business environments. These functions include editing, selecting, find and replace, document assembly, graphics, printing, headers and footers, columns, file management styles, math features, fonts and other print features, tables, sort and select, merges, macros, and reference tools.

## OO 287 LEGAL TRANSCRIPTION

Credits: 4 (S)  
Prerequisites: OO 260 or concurrent, OO 265 or OO 266

Students prepare legal documents and correspondence from machine dictation involving civil litigation, family law, probate, corporations, and real estate, emphasis is given to competencies in transcribing legal documents with correct formatting, punctuation, spelling, and legal terminology.

## OO 291 BILLING/CODING CAPSTONE

Credits: 2 (S)

Utilizing information acquired in the curriculum, students will demonstrate a working knowledge of concepts, processes and procedures encountered in the physician office management setting. This will include scheduling, end-of-month reporting, managing accounts, abstracting from patient records, coding, and reimbursement as well as exposure to software utilized in the medical office setting. Professionalism and HIPAA will be reviewed.

## OO 295 ADMINISTRATIVE OFFICE PROCEDURES

Credits: 3 (S)  
Prerequisites or Corequisites: OO 108, OO 265/266

This course is designed to equip students with knowledge of procedures along with basic attitudes and skills required of an office employee. Units include the role of the office professional, office organization, mail procedures, postal services, public relations, customer service, telephone techniques, schedules and appointments, travel arrangements, meetings and conferences, work prioritization, ordering and managing supplies, business research, job enhancement, and office management. Students will be required to assist in finding an appropriate Internship related to their field of study. This Internship must be approved by their instructor. Course should be taken during final spring semester.

## Philosophy (PHIL)

### PHIL 101 INTRODUCTION TO PHILOSOPHY

Credits: 3 (F, S, SU based on sufficient demand)  
An introduction to philosophy through examination of the thought of selected great philosophers or of traditional positions on classical philosophical problems.

### PHIL 232 BASIC ETHICS

Credits: 3 (F, S based on sufficient demand)  
This course introduces ethical theory through an examination of the major schools and the fundamentals of decision-making. It examines general moral theory and applies this theory to moral problems of historical and current interest.

### PHIL 238 MEDICAL ETHICS

Credits: 3 (F, S based on sufficient demand)  
This course provides a broad overview of the field of biomedical ethics. Topics discussed will include issues such as death and dying, human and animal experimentation, abortion, confidentiality, AIDS, the allocation of medical resources, as well as an examination of the codes of ethics of various health professions.



## Physical Science (PHYS)

### PHYS 110 SURVEY OF NATURAL SCIENCES

Credits: 3 (3 lecture) (F, S, SU based on sufficient demand)  
 A course designed to introduce some of the basic aspects of the Biological, Physical, and Earth Sciences. The biology component will emphasize the structural and functional features of organisms, their classification, and their importance in the environment. The physical science component will present a non-mathematical approach to understanding some of the basic concepts in chemistry and physics. The earth science studies will focus upon the interrelationships between geology, paleontology, astronomy, meteorology and oceanography. This course is required for elementary education majors.

### PHYS 130 FUNDAMENTALS OF PHYSICAL SCIENCE W/ LAB

Credits: 4 (3 lecture, 1 lab) (F, S, SU)  
 This course is an introduction to the fundamental behavior of energy and matter. It is divided into two sections: physics and chemistry. Topics discussed in the physics portion include: scientific measurement; motion; work and energy; heat and temperature; and waves (including sound and light). Topics discussed in the chemistry portion include: atomic structure; the periodic table of elements; chemical bonding and nomenclature; chemical formulas and equations; and solutions. Several lab experiments relating to some of these topics will be performed. No prior work in physics or chemistry is assumed for this course, although it is strongly recommended that students have good basic algebra skills.

## Political Science (POLS)

### POLS 206 US GOVERNMENT

Credits: 3 (F, S)  
 This course examines the major institutions of national government and politics. Special emphasis is placed on the Constitution and other political rules of the game as shapers of public consciousness and government policy.



## Psychology (PSY)

### PSY 101 GENERAL PSYCHOLOGY

Credits: 3 (F, S, SU)  
 This course is an introduction to the nature and scope of the field of psychology as a scientific and human endeavor. Major topics include: historic development of the field; biological and developmental processes; consciousness and perceptions; learning, remembering, and thinking; motivation and emotion; personality and individuality; social behavior; normal stress and coping; and abnormal psychology and treatment methods.

### PSY 109 LIFESPAN DEVELOPMENT

Credits: 3 (F, S, SU)  
 This course presents the study of human development throughout the lifespan. Study will include: the three domains of development (physical, cognitive and psychosocial); major theories; the influence of genetics; and prenatal development. The overall framework of the course is chronological dividing the lifespan into seven parts: infancy; early childhood; middle childhood; adolescence; early adulthood; middle adulthood; and late adulthood. This organization emphasizes the whole person and assists students to appreciate the ways in which the three domains of development continuously interact.

## Physical Therapist Assistant (PTA)

### PTA 105 INTRODUCTION TO PHYSICAL THERAPIST ASSISTING

Credits: 3 (F, S, SU)  
 Prerequisites: Acceptance into PTA Program  
 This course is designed to give the student an overview of the Physical Therapy profession by providing a historical perspective, as well as, an understanding of its philosophy in relation to the professional organization; an overview of the roles of the Physical Therapy staff members in the clinical setting, as well as, members of the health care team in various delivery systems; development of interpersonal communication skills relating to the profession; and an understanding of the commitment of the graduate to continued personal and professional development. This course provides an overview of ethical, legal, and psychosocial issues relating to the role of the PTA in health care delivery. It includes such topics as the implications of chronic illness; the aging process and death/dying; client's role in health management; financing of physical therapy; regulations governing PTAs; code of ethics; scope of PT and PTA practice; and the PTA's role in departmental administration.

### PTA 201 PHYSICAL THERAPIST ASSISTING II / LAB

Credits: 4 (3 Lecture, 1 Lab) (S)  
 Prerequisites: PTA 101, 205 with a grade of "C-" or higher and PTA 210 with a grade of "Pass"  
 Co requisites: PTA 208, 211, 215, 220

This is the second in the series of procedures and application courses. The following topics are covered: theoretical principles and application of chest physical therapy, biofeedback, topical applications, electrotherapy, ultrasound, and ultraviolet; procedure and application of cervical and lumbar traction; gait analysis and training; theory and application of massage; measurements and principles of therapeutic exercise.

## PTA 205 ANATOMY AND KINESIOLOGY FOR THE PTA

Credits: 5 (3 Lecture, 2 Lab) (F)  
 Prerequisites: Acceptance into PTA program  
 Co requisite: PTA 101, 210

This course is designed to provide the student with an understanding of: the human musculoskeletal system relative in the biomechanical elements of normal and abnormal human motion; physiology of exercise and its effects on movement and daily activity; and osteology and arthrology in relation to muscle action and joint mechanics. The study of goniometry, manual muscle testing, joint mobilization and athletic taping will also be presented.

## PTA 208 INTRODUCTION TO NEUROSCIENCE

Credits: 3 (S)  
 Prerequisites: PTA 101, 205 with a grade of "C-" or higher and PTA 210 with a grade of "Pass"  
 Co requisites: PTA 201, 211, 215, 220

This course is an introduction to neuroanatomy and neurology in relationship to neurological pathologies of the brain and spinal cord commonly treated by physical therapy. Structures and basic functions of the nervous system will be discussed.

## PTA 210 CLINICAL EXPERIENCE I

Credits: 3 (F)  
 Prerequisites: Acceptance into the PTA program  
 Co requisites: PTA 101, 205

The purpose of this clinical affiliation is to provide the student with an opportunity to apply skills and techniques learned in PT 100, 101, and 110 under the appropriate supervision of the clinical instructor. This course will include a four-week clinical rotation at an approved site.

## PTA 211 PHYSICAL THERAPIST ASSISTING III / LAB

Credits: 4 (3 Lecture, 1 Lab) (S)  
 Prerequisites: PTA 101, 205 with a grade of "C-" or higher and PTA 210 with a grade of "Pass"  
 Co requisite: PTA 201, 208, 215, 220

Through this course the student is introduced to neurological development: normal vs. abnormal - birth through adult; disease processes and outcomes; and neurophysiological routines used for treatment. Principles and treatment of specific disabilities are also presented.

## PTA 215 INTRODUCTION TO ORTHOPEDICS

Credits: 3 (2 Lecture, 1 Lab) (S)  
 Prerequisites: PTA 101, 205 with a grade of "C-" or higher and PTA 210 with a grade of "Pass"  
 Co requisite: PTA 201, 208, 211, 220

This course introduces students to pediatric and adult musculoskeletal pathologies and management of orthopedic and surgical problems commonly seen by physical therapy. Course content will include: basic biomechanics and mechanisms of orthopedic injuries and diseases, survey of surgical repair with emphasis on rehabilitation, evaluation techniques and treatments used by physical therapists, theoretical application of therapeutic exercise programs and equipment commonly used for treatment of various orthopedic conditions and surgical procedures, and orthopedic pediatric treatment routines.

## PTA 220 CLINICAL EXPERIENCE II

Credits: 4 (S)  
 Prerequisites: PTA 101, 201, 205, 208, 211, 215 with a grade of "C-" or higher and PTA 210 with a grade of "Pass"  
 Co requisite: PTA 201, 208, 211, 215

The students will continue to build on their clinical experiences from PTA 210 and implement knowledge gained from PTA 201, PTA 211, PTA 110, PTA 208, and PTA 215. This will consist of a six-week clinical rotation at an approved site.

## PTA 225 SEMINAR AND PROJECT IN PHYSICAL THERAPIST ASSISTING

Credits: 3 (SU)  
 Prerequisites: PTA 101, 201, 205, 208, 211, 215 with a grade of "C-" or higher and PTA 210, 220 with a grade of "Pass"  
 Co requisite: PTA 230

This concentrated course is designed to integrate skills and techniques from previous clinical experiences and from the course work presented throughout the PTA program. It focuses on presentation of comprehensive treatment plans utilizing all treatment skills and techniques learned during the previous semesters. The students will be expected to provide written reports including complete patient information and treatment plans and then present this information in the form of a case study/project. Research and current issues are discussed and presented. Students will be required to relate sociological, physical, and psychological aspects of illness and injury to their projects. A cumulative exam of the PTA curriculum, as well, as preparation for the state's licensure exam is covered in this course. Student questions and concerns are also addressed.

## PTA 230 CLINICAL EXPERIENCE III

Credits: 5 (SU)  
 Prerequisites: PTA 101, 201, 205, 208, 211, 215 with a grade of "C-" or higher and PTA 210, 220 with a grade of "Pass"  
 Co requisite: PTA 225

This is the third of three full-time affiliations/clinical experiences during which the student develops proficiency in physical therapy procedures, understanding of clinical responsibilities and supervisory relationships with a minimum competence necessary to graduate as an entry level physical therapist assistant and become an active participant of the health care team. This course will include an eight-week clinical rotation at an approved site.



## Radiologic Technology (RAD)

### **RAD 105 INTRODUCTION TO RADIOLOGIC TECHNOLOGY**

Credits: 2 (F)  
Prerequisite: Acceptance into RAD program

This course will introduce the student to the field of radiography and its various imaging modalities to prepare the student for what they will see and experience during their clinical rotations. It includes instruction in the areas of medical ethics and medico-legal aspects of radiographic imaging that will increase the awareness of the student to the legal responsibilities associated with radiographic imaging and an overview of pharmacology including contrast media, reactions to contrast media and electrical safety to aid the student in their clinical experience for those procedures that require the use of contrast media.

### **RAD 110 RADIOGRAPHIC PROCEDURES I**

Credits: 2 (F)  
Prerequisite: Acceptance into RAD Program

In this course the student is introduced to the principles of radiographic positioning including the terminology involved, bone classifications, bone anatomy, bone pathology, and arthrology. Positioning, pathology, and radiographic procedures related to the abdomen and chest are also covered. Instruction will include lecture, audio/visual media and positioning demonstrations in a radiographic room.

### **RAD 111 RADIOGRAPHIC PROCEDURES II**

Credits: 3 (S)  
Prerequisite: RAD 110

This unit of instruction provides the student with the opportunity to learn the radiographic procedures associated with examinations of the upper extremity, lower extremity, and vertebral column. Modification of routine positioning to accommodate traumatized patients is also presented. Methods of instruction include lecture, audio/visual media, and positioning demonstrations in a radiographic room.

### **RAD 115 RADIOGRAPHIC PRINCIPLES I**

Credits: 3 (F)  
Prerequisite: Acceptance into RAD Program

This course takes the student through the analysis of a radiographic image from a quality standpoint and the various factors that influence the quality of the final radiographic image. Image evaluation and knowing how to correct poor images is essential in the performance of the radiologic technologist. Instruction methods will include lecture, audio/visual media, and the review of radiographic images to reinforce the information presented during the lectures.

### **RAD 117 RADIOGRAPHIC PRINCIPLES II**

Credits: 3 (S)  
Prerequisite: RAD 115

This course begins with basic principles of physics to prepare the student for instruction related to x-ray circuitry. As a technologist an understanding of x-ray circuitry helps to realize when machine failures occur and what can be done to reduce the likelihood of machine failure. Having a basic knowledge of x-ray circuitry can aid the technologist in describing machine problems to repair personnel so that repairs may be made more efficiently. Instruction methods will include lecture and audio/visual media.

### **RAD 120 RADIOBIOLOGY / RADIATION PROTECTION**

Credits: 3 (F)  
Prerequisite: Acceptance into RAD Program

This course will introduce the student to the concepts of radiation, sources of radiation, and the production of x-rays that are used for imaging areas of the body. The effects of radiation exposure on living tissues and the risks to both the exposed individual and the individual's offspring are also included. Methods utilized to reduce exposures to patients and personnel are also covered. Instruction methods will include both lectures and audio/visual presentations.

### **RAD 130 PATIENT CARE IN RADIOLOGY**

Credits: 2 (S)  
Prerequisite: Successful completion of the first semester RAD Program

This course is designed to introduce the student to techniques and procedures utilized to provide care to the patient in the Radiology Department. It will provide instruction in the areas of infection control, vital signs, venipuncture, and patient communication. This instruction is necessary to meet some of the General Patient Care requirements of the American Registry of Radiologic Technologists.

### **RAD 140 CLINICAL EDUCATION I**

Credits: 7 300 Clinical Hours (F)  
Prerequisite: Acceptance into RAD Program

This aspect of the curriculum will involve time spent at the clinical education sites assisting with the performance of radiographic examinations on patients. Students will be given clinical rotations at each clinical site and attendance is mandatory. Students will be required to demonstrate competency in the operation and manipulation of the various types of radiographic equipment found at each clinical site during this time. Students will begin to document competencies on radiographic procedures during this time as well to meet the clinical competency requirements of the ARRT and the COT program.

### **RAD 141 CLINICAL EDUCATION II**

Credits: 8 360 Clinical Hours (S)  
Prerequisite: RAD 140

The student will continue assisting in the performance of radiographic examinations on patients at the clinical sites. Students are expected to continue to improve clinical skills and to demonstrate competency in additional radiographic procedures involving the chest, abdomen including digestive and urinary systems, upper extremities, lower extremities, and vertebral column to meet the clinical competency requirements of the ARRT and the COT program. Students will be given clinical rotations at each clinical site and attendance is mandatory.

## **RAD 210 RADIOGRAPHIC PROCEDURES III**

Credits: 4 (F)  
Prerequisite: RAD 111

This unit of instruction will provide the student with positioning and procedures involving the cerebral cranium, visceral cranium, urinary system, digestive system, biliary tract, and mammography. Methods of instruction include lecture, audio/visual media, and positioning demonstrations in a radiographic room.

## **RAD 215 RADIOGRAPHIC PROCEDURES IV**

Credits: 2 (S)  
Prerequisite: RAD 210

This course introduces the student to angiographic imaging and includes instruction on angiographic procedures and the equipment necessary to perform angiography. It will include common pathologic conditions that require angiographic studies and the radiographic appearance of these pathologic conditions. Several therapeutic procedures performed through angiographic methods are also included.

## **RAD 220 RADIOGRAPHIC PRINCIPLES III**

Credits: 2 (F)  
Prerequisite: RAD 116

This course will include instruction covering the interaction of radiation with atoms of the body, computer applications in radiology including computer terminology applicable to radiology systems, and an introduction to quality assurance testing that is performed within the radiology department to insure quality imaging can be provided. Instruction methods will include lecture and audio/visual media.

## **RAD 240 RADIOGRAPHIC INTERNSHIP**

Credits: 8 320 Clinical Hours (SU)  
Prerequisite: RAD 141

This course is to provide the student with the opportunity to practice in an internship setting. The internship will be for eight weeks at 40 hours per week. The student will be required to continue to demonstrate competency in new radiographic procedures to meet the clinical competency requirements of the ARRT and the COT program. Attendance is mandatory and will be monitored with the use of a time clock and time cards. Radiation monitoring devices must be worn at all times while in clinical education and possession of the device may be checked on site by the staff.

## **RAD 241 CLINICAL EDUCATION III**

Credits: 8 360 Clinical Hours (F)  
Prerequisite: RAD 240

This course is a continuation of RAD 240 and provides the student with the opportunity to improve clinical skills learned during their first year and to demonstrate clinical competency in more advanced radiographic procedures. In addition to previous clinical assignments, the student will be scheduled for clinical observations in areas of specialized imaging including CT, MRI, and ultrasonography. The student will be required to continue to demonstrate competency in new radiographic procedures to meet the clinical competency requirements of the ARRT and the COT program.

## **RAD 242 CLINICAL EDUCATION IV**

Credits: 10 480 Clinical Hours (S)  
Prerequisite: RAD 241

This is the final clinical rotation period for the student. During this time the student is expected to finish the clinical competency requirements of the ARRT and COT program. In addition to normal clinical rotations at each clinical site, the student will be provided clinical observation rotations in the areas of nuclear medicine and radiation therapy.

## **RAD 270 REGISTRY REVIEW**

Credits: 2 (S)  
This course will begin the review process to prepare the student for the certification examination provided by the American Registry of Radiologic Technologists (A.R.R.T.) which is taken after graduation from the clinical portion of the program. It will involve review testing to identify those areas of the didactic curriculum in which the students have their greatest weaknesses followed by classroom discussion. This allows the review to be more focused to the needs of the students. Computerized testing is also utilized to prepare the student for the testing format utilized by the A.R.R.T.

## Respiratory Care (RC)

### **RC 140 RESPIRATORY CARE CLINIC I**

Credits: 4 (S)  
Prerequisite: Completion of 1st semester of RT program

Students will gain knowledge through supervised experiences in hospital patient care, techniques, and equipment. Emphasis is on patient contact, medical gases, hyperinflation, equipment, percussion, humidity and aerosol therapy, airway management, and secretion management. Safety and environmental awareness will be covered in all clinical courses.

### **RC 141 RESPIRATORY CARE CLINIC II**

Credits: 4 (SU)  
Prerequisite: Completion of 2nd semester of RT program

Students will have supervised experiences in hospital patient care, techniques, and equipment. The previous clinical techniques will be expanded with emphasis on IPPB, artificial airway suctioning, chest physiotherapy, medication nebulization, EKGs, chest assessment, and continuous mechanical ventilation.

### **RC 150 RESPIRATORY CARE**

Credits: 2 (F)  
Prerequisite: Acceptance into RT program

Respiratory Care introduces new respiratory therapist students to the field of respiratory care. Course content includes respiratory care organizations, physical principles in respiratory care, medical terminology, respiratory drugs, medical ethics, and patient communications.

### **RC 155 RESPIRATORY PHYSIOLOGY**

Credits: 3 (F)  
Prerequisite: Acceptance into RT program

Respiratory Physiology covers anatomy and physiology of the cardio-pulmonary systems. Topics studied are blood, the heart, vessels, respiratory structure, the physics of gas pressure, ventilation, regulation of ventilation, O<sub>2</sub> and CO<sub>2</sub> transport, ventilation and perfusion balance, acid-base balance, and interpretation of arterial blood gases.

# YOUR College - COURSE DESCRIPTIONS

## **RC 170 RESPIRATORY CARE TECHNIQUES AND PROCEDURES I**

Credits: 5 (F)  
Prerequisite: Acceptance into RT program

Knowledge and skills taught will provide students with the theories, principles, and laboratory experience in the areas of medical gas therapy and aerosol and humidification therapy in the use of hyperinflation devices and chest physical therapy. An introduction to infection control, body mechanics, gas analyzers, artificial airways, manual resuscitators, secretion removal, and safety and environmental awareness will be studied.

## **RC 171 RESPIRATORY CARE TECHNIQUES AND PROCEDURES II**

Credits: 5 (S)  
Prerequisite: Completion of the 1st semester of the RT program

Knowledge and skills taught will provide students with the theories, principles, and laboratory experience in the areas of mechanical ventilation. Ventilators including but not limited to: Nellcor Puritan Bennett 7200ae and 840, Siemens Servo 900C and 300a, Sensorics 3100A High Freq. Oscillator, Repironics BiPaP Vision, and the Infrasonics Infant Star 500. Other areas such as arterial blood gas techniques, transcutaneous gas monitoring, hyperbaric oxygen therapy, mixed gas therapy, mechanical ventilator waveforms, troubleshooting, weaning and high frequency ventilation will also be investigated.

## **RC 180 VENTILATOR MANAGEMENT**

Credits: 2 (S)  
Prerequisite: Completion of the 1st semester of the RT program

This course covers ventilator management of the adult patient in the intensive care setting. Content includes ventilation techniques and procedures, oxygenation and ventilation, monitoring and troubleshooting.

## **RC 240 RESPIRATORY CARE CLINIC III**

Credits: 5 (F)  
Prerequisite: Completion of the 3rd semester of the RT program

Students will be supervised in in-hospital practice of advanced therapeutic and diagnostic respiratory care procedures including pulmonary function testing, arterial blood gases, intubation, continuing education, pulmonary rehabilitation, newborn and adult intensive care, and supervisory management. This course with RC 241 extend through two semesters.

## **RC 241 RESPIRATORY CARE CLINIC IV**

Credits: 5 (S)  
Prerequisite: Completion of the 4th semester of the RT program

Students will be supervised in in-hospital practice of advanced therapeutic and diagnostic respiratory care procedures including pulmonary function testing, arterial blood gases, intubation, continuing education, pulmonary rehabilitation, newborn and adult intensive care, and supervisory management. This course with RC 240 extend through two semesters.

## **RC 245 RESPIRATORY CARE CLINICAL SEMINAR I**

Credits: 1 (F)  
Prerequisite: Completion of the 3rd semester of the RT program

Co-requisite: RC 240

The purpose for this course is to provide students with an opportunity to share significant clinical experiences, to present clinical problems, to practice communication skills, and the presentation of student in-services. The student will learn to take the National Boards clinical simulation exams. Complete job seeking skills will be taught.

## **RC 246 RESPIRATORY CARE CLINICAL SEMINAR II**

Credits: 1 (S)  
Prerequisite: Completion of the 4th semester of the RT program

Co-requisite: RC 241

The purpose for this course is to provide students with an opportunity to share significant clinical experiences, to present clinical problems, to practice communication skills, and the presentation of student in-services. The student will learn to take the National Boards clinical simulation exams. Complete job seeking skills will be taught.

## **RC 250 HEMODYNAMIC MONITORING**

Credits: 3 (F)  
Prerequisite: Completion of the 3rd semester of the RT program

Hemodynamic Monitoring covers the management of the circulatory system in the intensive care setting. Content includes dysrhythmia recognition, monitoring, and management of circulatory system.

## **RC 255 PULMONARY ASSESSMENT**

Credits: 3 (S)  
Prerequisite: Completion of the 1st semester of the RT program

This course is a study of the diagnostic techniques and procedures including interview and history taking, chest assessment, chest radiology, laboratory findings, and arterial blood gases and an introduction to pulmonary function testing. Information will be used to investigate pulmonary diseases.



## RC 260 NEONATAL RESPIRATORY CARE

Credits: 3 (SU)  
Prerequisite: Completion of the 2nd semester of the RT program

Neonatal Respiratory Care is an infant intensive care course. The student will study fetal to neonatal transition, assessment of the newborn, cardiopulmonary disorders of the newborn and respiratory therapeutic procedures for the newborn.

## RC 265 RESPIRATORY CARE IN ALTERNATIVE SITES

Credits: 1 (S)  
Prerequisite: Completion of the 4th semester of the RT program

Rehabilitation for the chronic lung disease patient is stressed in this course. Areas discussed include selection of candidates, assessing pulmonary dysfunctions, rehabilitation techniques, biofeedback, home oxygen therapy, psychological factors, patient education, starting a pulmonary rehabilitation program, home care, and patient nutrition.

## RC 273 PULMONARY FUNCTION TESTING

Credits: 1 (S)  
Prerequisite: Completion of the 4th semester of the RT program

Pulmonary Function Testing is a study of pulmonary diagnostic testing. Course content includes pulmonary function normal values, lung volume tests, ventilation and ventilatory control tests, spirometry, gas distribution tests, diffusion tests, pulmonary function equipment, and quality assurance in the pulmonary function lab.

## RC 275 PULMONARY DISEASES

Credits: 2 (F)  
Prerequisite: Completion of the 1st semester of the RT program

Pulmonary Diseases surveys etiology, epidemiology, diagnosis, pathology, treatment, and prognosis of diseases of the lungs and diseases which affect the lungs. Diseases studied include pneumonia, tuberculosis, neuromuscular diseases, asthma, RDS, COPD, sleep apnea, pulmonary embolus, cystic fibrosis, and lung cancer.

## RC 280 SUPERVISORY MANAGEMENT

Credits: 2 (S)  
Prerequisite: Completion of the 4th semester of the RT program

This is a basic management course with an emphasis on the supervisory level in healthcare delivery system. The course focuses on the essential management functions of planning, organizing, staffing, influencing, and controlling. It also includes decision making, communications and legal.

## Sociology (SOC)

## SOC 111 INTRODUCTION TO SOCIOLOGY

Credits: 3 (F,S,SU)

This course offers exposure to fundamentals, perspectives, and terminology of sociology. It includes the study of society and human interaction as it is shaped by social structure and culture. Students also survey the interdependence of social institutions including family, religions, economics, politics, education and occupation, as well as population changes, social differentiation, inequality, deviance, conformity, modernization, social order, and social changes.

## SOC 115 SURVEY OF CRIMINAL JUSTICE

Credits: 3 (F based on sufficient demand)

This course offers exposure to the fundamental perspectives and terminology of the criminal justice system in the United States. It includes the study of the interaction of the individual with the criminal justice system. Students will also examine the causes of criminal behavior and the history, influences, and related fields of knowledge that are connected to the criminal justice system. Topics will include responsibilities of agencies, roles of personnel, and the inter-relationships of criminal justice to political agencies and other factors that influence the criminal justice system.

## Surgical Technology (SURG)

## SURG 101 INTRODUCTION TO SAFE PATIENT CARE

Credits: 3 (S)  
Course taught online by the University of Montana - College of Technology

Prerequisite: Acceptance into Surg Tech Program

Provides an orientation to the scrub and circulatory roles of the surgical technologist in the preoperative, intraoperative and postoperative periods. Entry level skills and theories are emphasized. (UM COT 07-08 catalog.)

## SURG 109 SURGICAL PROCEDURES LAB I

Credits: 3 (S)  
Co-requisite: SURG 101 90 Contact Hours

This course is designed to go hand-in-hand with the SUR 101 course, which will be concurrently given on-line by UM/COT. This course will present entry level responsibilities and competencies of the surgical technologist and related nursing procedures in both the scrub and circulator roles. This course will include lecture, as well as hands-on, problem solving sessions and clinical observations.

## SURG 110 SURGICAL PROCEDURES LAB II

Credits: 3 (F)  
Co-requisite: SURG 200 90 Contact Hours

This course is designed to go hand-in-hand with the SURG 200 course, which will be concurrently given on-line by UM/COT. This course will present entry level responsibilities and competencies of the surgical technologist and related nursing procedures in both the scrub and circulator roles. This course will include lecture, as well as hands-on, problem solving sessions and clinical observation experiences.

## SURG 154 SURGICAL PHARMACOLOGY

Credits: 3 (S)  
Course taught online by the University of Montana - College of Technology

Prerequisite: Acceptance into Surg Tech Program

Basic overview of the medications that are commonly used before, during and after surgery. (UM COT 07-08 catalog.)

# YOUR College - COURSE DESCRIPTIONS

## **SURG 192 CLINICAL EXPERIENCE I**

Credits: 4 168 Contact Hours (F)

This course will provide a supervised clinical experience in surgical settings providing scrub, assisting, and circulating experience on surgical procedures level I and level II. Each student will be assigned a specific surgical facility, and then assigned a specific preceptor who will become their daily on-site clinical mentor. In addition to the clinical experience, student will have a weekly debriefing facilitated by the instructor in order to share clinical experiences and learn from each other.

## **SURG 193 CLINICAL EXPERIENCE II**

Credits: 5 320 Contact Hours (S)

This course will provide a supervised clinical experience in surgical settings providing scrub, assisting, and circulating experience on surgical procedures level I and level II as in Clinical I. However, a greater degree of proficiency and independence will be expected from the student. Each student will be assigned a specific surgical facility, and then assigned a specific preceptor who will become their daily on-site clinical mentor.

## **SURG 194 INTERNSHIP**

Credits: 5 200 Contact Hours (S)

Prerequisite: Instructor approval and all SURG classes with a grade of "C-" or higher

This course will provide a minimally supervised clinical experience in surgical settings providing scrub, assisting and circulating experience on surgical procedures level I - III. However, a greater degree of proficiency and independence will be expected from the student. The internship develops the student's competencies as a first scrub on surgical procedures, and acquaints them with the professional expectations of surgical technologists as a capstone experience preparing them for initial employment. The course provides the student with the actual experience in surgical procedures, team work, flexibility, organization and efficiency. In addition, the student will learn how to prepare all supplies and equipment used in the operating room in preparation for surgical procedures.

## **SURG 201 SURGICAL PROCEDURES I**

4 credits (F)

Course taught online by the University of Montana – College of Technology

Prerequisite: Completion of 1st semester of Surg Tech program classes

A study of surgical procedures following the patient through the preoperative, intraoperative, and postoperative stages of specific surgical specialties. (UM COT 07-08 catalog)

## **SURG 202 OPERATING ROOM TECHNIQUES**

5 credits (F)

Course taught online by the University of Montana – College of Technology

Prerequisite: Completion of 1st semester of Surg Tech program classes

Focus on the scrub and circulator roles of the surgical technologist in the preoperative, intraoperative and postoperative periods. More complex skills and theories; impact of new technologies in the 21st century operating room. (UM COT 07-08 catalog)

## **SURG 205 SURGICAL PROCEDURES II**

5 credits (S)

Course taught online by the University of Montana – College of Technology

Prerequisite: Completion of 1st & 2nd semester of Surg Tech program classes

A study of surgical procedures following the patient through the preoperative, intraoperative and post-operative stages of CV/thoracic, orthopedic, neurological, and ophthalmic specialties. (UM COT 07-08 catalog.)



## Auto Body Repair & Refinishing (TB)

### TB 112 AUTO AND PAINT SHOP SAFETY

Credits: 1 (F)  
A departmental orientation for new students in classroom and lab policies and procedures will be conducted in this course. Specialized tools used in the auto repair industry, shop safety, paint guns, hydraulic equipment, and air compressors, the proper use and care of personal safety equipment, and the safe handling and disposal of various chemicals are introduced.

### TB 130 BASIC AUTO CONSTRUCTION

Credits: 2 (F)  
This course will introduce students to the automotive body-repair business. Technical aspects of the auto design, the construction materials, as well as the classroom study of damage classification and repair techniques will be introduced. The theory and practice of welding thin gauge mild steel with a MIG welder will be taught.

### TB 134 CORRECTING SHEET METAL

Credits: 3 (F)  
Prerequisite: TB 130  
Theory and practice in manipulative skills are given in this course. Students will receive instruction and lab experience in roughing, bumping metal, shrinking, fillers and sanding.

### TB 136 CORRECTING COLLISION DAMAGE

Credits: 5 (S)  
Prerequisite: TB 134  
This course involves the study of impact forces and the transfer of energy through a vehicle. Students will study the unit-body and full-framed vehicle locating primary and secondary damage.

### TB 141 SURFACE PREPARATION AND UNDERCOATS

Credits: 3 (F)  
Beginning students in refinishing will be given theory and laboratory experience with metal conditioners, wax and grease removers, and primers. Students will work with lab test panels only.

### TB 142 TOP COAT APPLICATION

Credits: 3 (F)  
Students will study top coats including clear coating, metallic colors, and sealers. Students will work with lab test panels only.

### TB 150 PAINT REMOVAL

Credits: 3 (S)  
Prerequisite: TB 141  
Students will evaluate and study the condition of old paint film and its thickness as well as analyze the most efficient way of removal using chemical strippers, bead blasters, or mechanical sanders.

### TB 153 OVERALL REFINISHING

Credits: 3 (S)  
Prerequisite: TB 142  
This course includes a comprehensive study of auto refinishing techniques. Students will develop skills in sanding and masking operations used to properly refinish a complete automobile with acrylic enamel.

### TB 154 PAINT PROBLEMS

Credits: 1 (S)  
Co requisite: TB 153

Students will participate in laboratory practice and preparation to determine the causes of various paint failure due to break down, improper preparation, incompatible materials, wrong use of materials, or poor spray techniques.

### TB 220 FIBERGLASS AND PLASTIC REPAIR

Credits: 3 (F)  
Prerequisite: TB 136

Students will study repair and replacement of fiberglass and S.M.C. panels. Students will gain practical experience in welding procedures for soft, and rigid plastics. They will identify the various types of plastics used in the construction of internal and external body panels. Students will learn to use flexible fillers, primers and paints.

### TB 243 PANEL REPLACEMENT

Credits: 3 (F)  
Prerequisite: TB 136

This course will give students practical experience in removal and replacement of weld on panels, door skins, and rocker, quarter and top panels.

### TB 245 PRODUCTION BODY REPAIR

Credits: 3 (S)  
Prerequisite: TB 243

In this course, students' work will be compared to industry flat rate charges used when repairing damage. The learning experiences are simulated to on-the-job work conditions stressing quality and shop flat-rate time. Students will be expected to function as an employer would expect in areas such as dependability, working independently, and customer relations.

### TB 246 TOTAL BODY REBUILDING AND SECTIONING

Credits: 3 (S)  
This course covers the theory and practice in the use of body measuring equipment including tram gauges and centering gauges. Students will use frame and body pull systems to return a lab vehicle to its proper dimensions and will study the theory of full-body sectioning and proper use of recycled parts.

### TB 248 SPOT REPAIR AND BLENDING

Credits: 3 (F)  
Co requisite: TB 153

Students will have the opportunity in this course to obtain practical experience in color sanding, compounding, masking, and blending methods used in spot repairing.

### TB 249 PAINT FORMULATION AND TINTING

Credits: 3 (F)  
Co requisite: TB 248

This course provides instruction and practice in the process of mixing paint from tinting colors. Assigned lab projects will give students the opportunity to mix, adjust, and tint to match the existing color.

# YOUR College - COURSE DESCRIPTIONS

## **TB 250 PRODUCTION REFINISHING**

Credits: 3 (S)  
Prerequisite: TB 249

Emphasis in this course will be on refining skills and increasing productivity and will be timed for comparison with industry standards.

## **TB 254 SPECIALTY FINISHES**

Credits: 1 (S)  
Prerequisite: TB 253

This course provides instruction and practical experience in custom finishes as well as new production applications. Students will receive instruction and lab experience using gel-coating, metal flake, pearl, and candy.

## **TB 255 ESTIMATING COLLISION DAMAGE**

Credits: 3 (S)  
This course will focus on instruction in the procedures of estimating collision and refinishing repairs. A study will be made of parts catalogs, flat-rate manuals, and computer estimation programs.

## Welding Technology (WELD)

## **WELD 101 WELDING THEORY I**

Credits: 1 (F)

This course covers welding safety, oxy-fuel and shielded metal arc welding (SMAW), definitions covering joining common metals, joint and weld classifications, welding positions, power source selection, plus manual and semiautomatic cutting principles, and terminology.

## **WELD 102 WELDING PRACTICAL I**

Credits: 3 (F)  
Corequisite: WELD 101

Oxy-fuel practical work will involve fusion welding, brazing, and cutting. Shielded metal arc welding (SMAW) practical work will involve flat and horizontal welding skills using a variety of electrodes.

## **WELD 103 WELDING THEORY II**

Credits: 1 (S)  
Corequisite: WELD 104

Prerequisites: WELD 101, WELD 102

This course will concentrate on the processes which use inert and/or inert and active gas mixtures for shielding during welding. Gas metal arc welding (GMAW) or MIG, gas tungsten arc welding (GTAW) or TIG, and plasma welding and cutting (PAW/PAC) operations will be thoroughly covered. Process selection and use for welding ferrous and nonferrous metals will be covered.

## **WELD 104 WELDING PRACTICAL II**

Credits: 3 (S)  
Corequisite: WELD 103

Prerequisites: WELD 101, WELD 102

Practical work involves the application of GMAW and GTAW as it is used in industry today. Use of the various modes of metal transfer, joint styles, welding positions, welding of carbon and stainless steels, and aluminum alloys on various joint styles and in various welding positions, and manipulation techniques will be emphasized.

## **WELD 109 BLUEPRINT READING AND WELDING SYMBOLS**

Credits: 2 (F)

This course will introduce blueprints and emphasize reading and interpreting welding symbols. Topics covered include basic blueprint reading for welders; basic lines, basic views, title block information, dimensions, structural shapes, auxiliary views, section views, detail prints, welding symbols and other various blueprint information.

## **WELD 110 APPLIED METALLURGY**

Credits: 2 (F)

This course covers basic metallurgical principles and their relationship to the following processes: welding, machining, forming, heat treating, and finishing of ferrous and nonferrous metals. Includes applied metallurgy lab testing exercises.

## **WELD 117 FABRICATION BASICS**

Credits: 3 (S)

Prerequisites: WELD 101, WELD 102, WELD 110

Corequisites: CNST 109, WELD 103, WELD 104

The introduction to basic machining course instruction will include material properties, productive, and economical machining, and turning operations. Additional related information will include semi-precision and precision layouts, design, and techniques for successful machining operations.

## **WELD 119 INTRODUCTION TO STRUCTURAL WELDING**

Credits: 3 (S)

Prerequisites: WELD 101, WELD 102, WELD 110

Corequisites: CNST 109, WELD 103, WELD 104

This course covers gas metal arc welding (GMAW) of structural steel and stresses certification code welding on plate and structural steel in all positions. Course instruction and related information will include gas metal and flux core arc welding equipment and welding variables, shielding gases, troubleshooting equipment and weld defects, welder certification and welding codes.

## **WELD 126 WELDING QUALIFICATION PREPARATION**

Credits: 2 (S)

Prerequisites: WELD 101, WELD 102

Corequisites: WELD 103, WELD 104

This is an advanced course in shielded metal arc welding (SMAW) and gas metal arc welding (GMAW) procedures to prepare for industrial certification. This includes welding single vee groove weld-but joints with backing strips in the flat, horizontal, vertical, and overhead position following the American Welding Society (AWS) and the American Society of Mechanical Engineers (ASME) code specifications.

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**YOU**  
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Our PEOPLE



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Dental Hygiene - Program Director

- B.A., Carroll College



# OUR People - SUPPORT PERSONNEL



Lisa Albert.....Human Resources  
 David Bonilla.....Computer Support  
 Gayla Bridger.....Accounting  
 Courtney Brooks.....Bookstore  
 Sandy Brown.....Cafeteria  
 Kirsten Bryson.....Library  
 Pamela Buckheit.....Business & Technology Dept  
 Staci Campbell.....Student Accounts  
 Elizabeth Chappie Zoller.....COT in Bozeman  
 Marie Cherry.....Accounting  
 Delisa Clampitt.....Learning Center  
 Thomas Cole.....Computer Support  
 Dwight Cook.....Maintenance  
 Beth Cooper.....Library  
 Thomas Degel.....Registrar's Office  
 Gerald Eberl.....Maintenance  
 Kelli Engelhardt.....Financial Aid  
 Art England.....Maintenance  
 Marianne Frank.....Welcome Desk  
 Lee Anne Gills.....Arts & Sciences Dept  
 Kathleen Haggart.....Payroll  
 Steven Halsted.....Bookstore  
 Melanie Houge.....Admissions  
 Jodi Howard.....Health Sciences  
 Tabby Jagger.....COT in Bozeman

Lorene Jaynes.....Associate Deans Offices  
 Dianna Klopfenstein.....Student Accounts  
 Monica Knock.....Interpreter  
 Rhonda Kueffler.....Webmaster/Graphic Designer  
 Patricia Laird.....Dental Hygiene  
 Jack Logozzo.....Maintenance  
 Loretta Marquis.....Cafeteria  
 Willie McGee.....Computer Support  
 Karla Mertens-Morse.....COT in Bozeman  
 Gail Morrison.....Student Central  
 Natalie Nefzger.....Recruiter  
 Heather Palermo.....Dean's Office  
 Melanie Paul.....Outreach & College Relations  
 Fanci Pulliam.....Admissions  
 Dustin Ratliff.....Bookstore  
 Deborah Richerson.....Outreach  
 Ted Ries.....Maintenance  
 Julie Rummel.....Financial Aid  
 Eugene Stewart.....Autobody/Maintenance  
 EJ Suek.....Computer Support  
 James Sweat.....Print Center  
 Susan Thomas.....Facility Coordinator  
 Benjamin Truman.....Library  
 Karen Vosen.....Distance Learning  
 Ronald Wynegar.....Maintenance

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## INSTITUTIONAL ACCREDITATION

### ***MSU – Great Falls College of Technology***

Accredited through the Northwest Commission on Colleges and Universities, one of six regional accrediting associations in the United States.

The Northwest Commission on Colleges and Universities (NWCCU) is an independent, non-profit membership organization recognized by the U.S. Department of Education and the Council for Higher Education Accreditation (CHEA) as the regional authority on educational quality and institutional effectiveness of higher education institutions in the seven-state Northwest region of Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington. It fulfills its mission by establishing accreditation criteria and evaluation procedures by which institutions are reviewed.

8060 165th Avenue N.E.  
Suite 100  
Redmond, WA 98052  
Tel (425) 558 4224

## PROGRAM ACCREDITATION

### **PRACTICAL NURSE PROGRAM**

Approved by the Montana State Board of Nursing  
301 South Park, Room 430  
PO Box 200513 Helena, MT 59620-0513  
Tel (406) 841-2300 Receptionist

### **DENTAL ASSISTING**

Accredited by the American Dental Association  
Council on Dental Education  
211 East Chicago Avenue  
Chicago, Illinois 60611  
Tel (312) 440-4653

### **DENTAL HYGIENE**

Accredited by the American Dental Association  
Commission on Dental Accreditation  
211 East Chicago Avenue  
Chicago, Illinois 60611  
Tel (312) 440-4653

### **HEALTH INFORMATION CODING SPECIALIST**

This program is approved by:  
American Health Information Management Association (AHIMA)  
Assembly on Education  
233 N. Michigan Avenue, Suite 2150  
Chicago, IL 60601-5800  
Tel (312) 233-1100

### **HEALTH INFORMATION TECHNOLOGY**

Commission on Accreditation for Health Informatics and  
Information Management Education (CAHIIM)  
Accreditation Services  
c/o AHIMA  
233 N. Michigan Ave, Suite 2150  
Chicago, IL 60601-5800

### **PHYSICAL THERAPIST ASSISTANT**

Commission on Accreditation in Physical Therapy Education  
(CAPTE)  
1111 North Fairfax Street  
Alexandria, VA 22314  
accreditation@apta.org  
Tel (703) 684-2782 or (703) 706-3245

### **RESPIRATORY CARE**

Commission on Accreditation of Allied Health Education  
Programs (CAAHEP)  
1361 Park Street  
Clearwater, FL 33756  
Tel (727) 210-2350

Committee on Accreditation for Respiratory Care (CoARC)  
1248 Harwood Road  
Bedford, TX 76021-4244  
Tel (817) 283-2835

### **SURGICAL TECHNOLOGY**

Commission on Accreditation of Allied Health Education  
Programs (CAAHEP)  
35 East Wacker Drive  
Suite 1970  
Chicago, IL 60601  
Tel (312) 553-9355

Accreditation Review Committee on Education in Surgical  
Technology (ARC-ST)  
6 West Dry Creek Circle Suite 210 Littleton, CO 80120  
Tel (800) 637-7433 or (303) 694-9130



