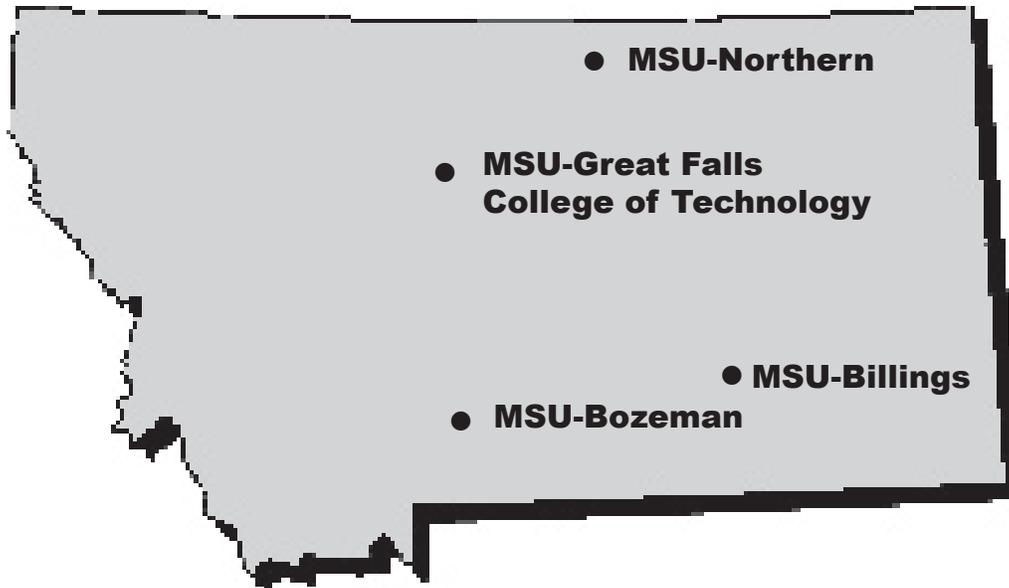




2100 16th Avenue South  
Great Falls, MT 59405  
[406] 771-4300 or [800] 446-2698  
[www.msugf.edu](http://www.msugf.edu)

# THE CAMPUSES OF MONTANA STATE UNIVERSITY



On January 21, 1994, the Montana Board of Regents voted unanimously to restructure the Montana University System. Under the plan, Eastern Montana College (Billings) and Northern Montana College (Havre), as well as the vocation-technical centers in Great Falls and Billings were renamed and consolidated with Montana State University in Bozeman.

The Regents assigned new names to all units: MSU-Bozeman, MSU-Billings which now includes the Billings College of Technology, MSU-Northern, and MSU-Great Falls College of Technology.

Since the consolidation, the MSU campuses have emphasized course transferability, sharing resources, telecommunications, and providing more and better services to students everywhere.



406.657.2011  
1.800.565.6782  
[www.msubitings.edu](http://www.msubitings.edu)



406.994.0211  
1.888.678.2287  
[www.montana.edu](http://www.montana.edu)



406.771.4300  
1.800.446.2698  
[www.msugf.edu](http://www.msugf.edu)



406.265.3700  
1.800.662.6132  
[www.msun.edu](http://www.msun.edu)



## Montana State University Great Falls College of Technology

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, 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,

A handwritten signature in cursive script that reads 'Mary Sheehy Moe'.

Dr. Mary Moe  
Dean

# MISSION STATEMENT

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## TYPE OF INSTITUTION

Montana State University-Great Falls College of Technology is a public postsecondary two-year educational institution affiliated with Montana State University-Bozeman. 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.

## DEGREE LEVELS

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 in the career areas of Health Sciences and Business and Technology;
- award Associate Degrees for transfer to four-year programs;
- offer general education courses reflective of the core curriculum requirements at Montana State University-Bozeman as well as those of the Montana University System;
- offer courses, seminars, workshops, and customized training to meet the educational needs of individuals, businesses, and other populations.

## 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 four-year 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 a contemporary telecommunications complex; 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.

## GREAT FALLS STATS

Population	56,690
Elevation	3,674
Founded	1882

## ECONOMIC IMPACT

MSU-Great Falls  
College of Technology

**Total**            **\$17,332,967**

*(From the Bureau of Business  
and Economic Research –  
The University of Montana)*



## ATTRACTIONS

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

## OUTDOOR RECREATION

Biking  
Camping  
Cross-Country Skiing  
Downhill Skiing  
Fishing  
Hiking  
Hunting  
National Forests  
National Parks

And much more . . .

## 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.

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# ACADEMIC CALENDAR

## FALL SEMESTER 2004

New Student Registration Begins .....	July 9
Challenge Exams (Keyboarding, Intro to Computers, Medical Terminology) .....	August 24
Health Science Orientation .....	August 26
Classes Begin .....	August 30
Last Day to Add Classes .....	September 3
Labor Day Holiday (No Classes, Offices Closed) .....	September 6
Last Day to Withdraw/Drop Classes with a Partial Refund .....	September 20
Graduation Applications Due .....	October 22
Mid-Term Grades Due .....	October 25
Election Day (No Classes, Offices Closed) .....	November 2
Veterans' Day Holiday (No Classes, Offices Closed) .....	November 11
Registration for Spring 2005 Begins .....	November 15
Thanksgiving Holiday (No Classes, Offices Closed) .....	November 25-26
Last Day to Drop Classes with a "W" .....	December 3
Last Day of Classes .....	December 10
Finals Week .....	December 13-16
Grades Available on Web .....	December 23

## SPRING SEMESTER 2005

New Student Registration Begins .....	December 8
Challenge Exams (Keyboarding, Intro to Computers, Medical Terminology) .....	January 4
Health Sciences Orientation .....	January 10
Classes Begin .....	January 12
Martin Luther King Holiday (No Classes, Offices Closed) .....	January 17
Last Day to Add Classes .....	January 19
Last Day to Withdraw/Drop Classes with Partial Refund .....	February 2
Presidents Day (No Classes, Offices Closed) .....	February 21
Graduation Applications Due .....	March 4
Mid-Term Grades Due .....	March 11
Spring Break .....	March 14-18
Registration for Summer/Fall Begins .....	April 6
Last Day to Withdraw/Drop Classes with a "W" .....	April 22
Last Day of Classes .....	April 29
Finals Week .....	May 2-5
Commencement .....	May 6
Grades Available on Web .....	May 13

## SUMMER TERM 2005

New Student Registration Begins .....	May 11
10-Week Summer Session Begins .....	May 16
Memorial Day Holiday (No Classes, Offices Closed) .....	May 30
8-Week Summer Session Begins .....	May 31
Last Day to Add Classes .....	June 6
Last Day to Withdraw/Drop Classes with Partial Refund .....	June 9
Graduation Applications Due .....	June 24
Independence Day Holiday .....	July 4
Last Day to Drop Classes with a "W" .....	July 15
Summer Session Ends .....	July 22
Grades Available on Web .....	July 29

\*Dates subject to change. Check the MSU-GF COT website for up-to-date information.

## TELEPHONE DIRECTORY

MSU – Great Falls College of Technology .....	800-446-2698 or 406-771-4300
Health Science Department .....	406-771-4350
Arts & Science Department .....	406-268-3705
Bookstore .....	406-771-4367
Business & Technology Department .....	406-771-4391
Business Office .....	406-771-4315
Financial Aid .....	406-771-4334
Library .....	406-771-4318
Outreach/Distance Ed. Department .....	406-771-4440
Admissions & Records .....	406-771-4420
Academic Resources/Counselors .....	406-771-4414
Academic Transcripts .....	406-268-3701
FAX .....	406-771-4317

# PROGRAMS

## ARTS & SCIENCES

Montana University System Core

ASSOCIATE OF ARTS DEGREE

In General Education

ASSOCIATE OF SCIENCE DEGREE

In General Education

With Business Education Concentration

With Education Concentration

## BUSINESS & TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

Accounting

Business Management/Entrepreneurship

Computer Technology – Microcomputer Support

Computer Technology – Network Support

Computer Technology – Web Development

Computerized Office Tech – Administrative Assistant

Computerized Office Tech – Attorney's Assistant

Computerized Office Tech – Medical Admin Assistant

Design Drafting Technology

Interior Design

Medical Transcription

ASSOCIATE OF SCIENCE DEGREE

With Business Concentration

With Business Technology Concentration

With Computer Information Systems Concentration

CERTIFICATE

Accounting Assistant

Auto Body Repair & Refinishing

Computer Assistant

Fundamentals of Business

Medical Transcription\*

Network Architecture

Office Support General Office Assistant

Office Support Legal Receptionist

Office Support Medical Receptionist

SPECIALIZED ENDORSEMENT

Business Management

Computerized Accounting

Legal Information

Microcomputer Applications

Microcomputer Word Processing

Professional Communications

INDUSTRY AND STANDARD CERTIFICATIONS

Comp TIA Network+

Comp TIA A+

Cisco Certified Network Associate

Cisco Certified Network Professional

Microsoft MCP and MCP +1

Microsoft Office Specialist – Microsoft Word XP

Microsoft Office Specialist – Microsoft PowerPoint XP

Microsoft Office Specialist – Microsoft Excel XP

Microsoft Office Specialist – Microsoft Access XP

Microsoft Certified System Administrator

## HEALTH SCIENCES

ASSOCIATE OF APPLIED SCIENCE DEGREE

Bioscience Technology – Animal Laboratory Technician

Bioscience Technology – Instrumentation Technician

Bioscience Technology – Research Laboratory Technician

Dental Hygiene

Emergency Services – EMT Paramedic

Emergency Services – Fire & Rescue Technology

Health Information Technology

Medical Assistant

Physical Therapist Assistant

Practical Nurse

Respiratory Care

CERTIFICATE

Dental Assistant

EMT Paramedic

Health Information Coding Specialist\*

Medical Billing Specialist\*

Surgical Technology

SPECIALIZED ENDORSEMENT

Emergency Services Paramedic Endorsement

\*Offered online



# ESTIMATED PROGRAM COST

Resident Tuition and Fees are Listed

## ARTS & SCIENCES

MONTANA UNIVERSITY SYSTEM CORE	
Tuition and Fees	\$3740
Application Fee	30
Books/Supplies	950
	<u>\$4720</u>
ASSOCIATE OF ARTS IN GENERAL EDUCATION	
Tuition and Fees	\$3740
Application Fee	30
Books/Supplies	950
	<u>\$4720</u>
ASSOCIATE OF SCIENCE IN GENERAL EDUCATION	
Tuition and Fees	\$3740
Application Fee	30
Books/Supplies	950
	<u>\$4720</u>
ASSOCIATE OF SCIENCE WITH EDUCATION CONCENTRATION	
Tuition and Fees	\$7000
Application Fee	30
Books/Supplies	1550
	<u>\$8580</u>
ASSOCIATE OF SCIENCE WITH BUSINESS EDUCATION CONCENTRATION	
Tuition and Fees	\$6400
Application Fee	30
Books/Supplies	1550
	<u>\$7980</u>

## BUSINESS AND TECHNOLOGY

ACCOUNTING	
Tuition and Fees	\$6300
Application Fee	30
Books/Supplies	1800
	<u>\$8130</u>
ACCOUNTING ASSISTANT CERTIFICATE	
Tuition and Fees	\$3650
Application Fee	30
Books/Supplies	975
	<u>\$4655</u>
ASSOCIATE OF SCIENCE WITH BUSINESS CONCENTRATION	
Tuition and Fees	\$6400
Application Fee	30
Books/Supplies	1650
	<u>\$8080</u>
ASSOCIATE OF SCIENCE WITH BUSINESS TECHNOLOGY CONCENTRATION	
Tuition and Fees	\$6400
Application Fee	30
Books/Supplies	1650
	<u>\$8080</u>
ASSOCIATE OF SCIENCE WITH COMPUTER INFORMATION SYSTEMS CONCENTRATION	
Tuition and Fees	\$6400
Application Fee	30
Books/Supplies	1650
	<u>\$8080</u>

## AUTO BODY REPAIR AND REFINISHING

Tuition and Fees	\$6760
Application Fee	30
Books/Supplies	600
Tools	1600
Clothing	104
Lab/Material Fees	275
	<u>\$9405</u>

## BUSINESS MANAGEMENT/ENTREPRENEURSHIP

Tuition and Fees	\$6400
Application Fee	30
Books/Supplies	1650
	<u>\$8080</u>

## COMPUTER ASSISTANT CERTIFICATE

Tuition and Fees	\$4200
Application Fee	30
Books/Supplies	850
	<u>\$5080</u>

## COMPUTER TECHNOLOGY MICROCOMPUTER SUPPORT

Tuition and Fees	\$7000
Application Fee	30
Books/Supplies	1550
	<u>\$8580</u>

## COMPUTER TECHNOLOGY NETWORK SUPPORT

Tuition and Fees	\$7000
Application Fee	30
Lab Fees	120
Books/Supplies	1550
	<u>\$8700</u>

## COMPUTER TECHNOLOGY WEB DEVELOPMENT

Tuition and Fees	\$7000
Application Fee	30
Lab Fees	120
Books/Supplies	1550
	<u>\$8700</u>

## COMPUTERIZED OFFICE TECHNOLOGY ADMINISTRATIVE ASSISTANT

Tuition and Fees	\$6300
Application Fee	30
Books/Supplies	1500
	<u>\$7830</u>

## COMPUTERIZED OFFICE TECHNOLOGY ATTORNEY'S ASSISTANT

Tuition and Fees	\$6300
Application Fee	30
Books/Supplies	800
	<u>\$7130</u>

## COMPUTERIZED OFFICE TECHNOLOGY MEDICAL ADMINISTRATIVE ASSISTANT

Tuition and Fees	\$6300
Application Fee	30
Books/Supplies	1500
	<u>\$7830</u>

## DESIGN DRAFTING

Tuition and Fees	\$6300
Application Fee	30
Books/Supplies	1350
	<u>\$7680</u>

# ESTIMATED PROGRAM COST

Resident Tuition and Fees are Listed

<b>FUNDAMENTALS OF BUSINESS CERTIFICATE</b>		<b>BIOSCIENCE TECHNOLOGY RESEARCH LABORATORY</b>	
Tuition and Fees	\$3800	TECHNICIAN	
Application Fee	30	Tuition and Fees	\$7260
Books/Supplies	<u>850</u>	Application Fee	30
	\$4680	Lab Fees	310
<b>INTERIOR DESIGN</b>		Books	<u>1605</u>
Tuition and Fees	\$5050		\$9205
Application Fee	30	<b>DENTAL ASSISTANT CERTIFICATE</b>	
Books/Supplies	<u>1350</u>	Tuition and Fees	\$5100
	\$6430	Application Fee	30
<b>MEDICAL TRANSCRIPTION</b>		Books/Supplies	945
Tuition and Fees	\$6300	Uniforms/Lab jacket	150
Application Fee	30	Shoes	50
Lab Fees	90	Lab fees	235
Books/Supplies	<u>1450</u>	Liability Insurance	<u>18</u>
	\$7870		\$6528
<b>MEDICAL TRANSCRIPTION CERTIFICATE</b>		<b>DENTAL HYGIENE</b>	
Tuition and Fees	\$3500	Tuition and Fees	\$9100
Application Fee	30	Application Fee	30
Books/Supplies	<u>1050</u>	Lab Fees	160
	\$4610	Books/Supplies	<u>1700</u>
<b>NETWORK ARCHITECTURE CERTIFICATE</b>			\$10990
Tuition and Fees	\$4200	<b>EMERGENCY SERVICES PARAMEDIC</b>	
Application Fee	30	Tuition and Fees	\$6120
Material Fees	120	Application Fee	30
Books/Supplies	<u>800</u>	Lab Fees	230
	\$5150	Liability Insurance	75
<b>OFFICE SUPPORT GENERAL OFFICE ASSISTANT CERTIFICATE</b>		Books/Supplies	<u>1350</u>
Tuition and Fees	\$3650		\$7805
Application Fee	30	<b>EMERGENCY SERVICES PARAMEDIC CERTIFICATE</b>	
Books/Supplies	<u>850</u>	Tuition and Fees	\$4190
	\$4530	Application Fee	30
<b>OFFICE SUPPORT LEGAL RECEPTIONIST CERTIFICATE</b>		Lab Fees	90
Tuition and Fees	\$3506	Liability Insurance	50
Application Fee	30	Books/Supplies	<u>1000</u>
Books/Supplies	<u>700</u>		\$5360
	\$4236	<b>EMERGENCY SERVICES FIRE AND RESCUE</b>	
<b>OFFICE SUPPORT MEDICAL RECEPTIONIST CERTIFICATE</b>		Tuition and Fees	\$5600
Tuition and Fees	\$3506	Application Fee	30
Application Fee	30	Lab Fees	120
Books/Supplies	<u>850</u>	Liability Insurance	50
	\$4386	Books/Supplies	<u>1000</u>
<b>HEALTH SCIENCES</b>			\$6800
<b>BIOSCIENCE TECHNOLOGY ANIMAL LABORATORY TECHNICIAN</b>		<b>HEALTH INFORMATION TECHNOLOGY</b>	
Tuition and Fees	\$6920	Tuition and Fees	\$7400
Application Fee	30	Application Fee	30
Lab Fees	270	Lab Fees	70
Books	<u>1605</u>	Books	1400
	\$8225	Liability Insurance	<u>24</u>
<b>BIOSCIENCE TECHNOLOGY INSTRUMENTATION TECHNICIAN</b>			\$8924
Tuition and Fees	\$7150	<b>HEALTH INFORMATION CODING SPECIALIST (CERTIFICATE)</b>	
Application Fee	30	Tuition and Fees	\$4580
Lab Fees	160	Application Fee	30
Books	<u>1605</u>	Lab Fees	35
	\$8945	Books/Supplies	<u>1600</u>
			\$6245

# ESTIMATED PROGRAM COST

Resident Tuition and Fees are Listed

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MEDICAL ASSISTANT	
Tuition and Fees	\$7000
Application Fee	30
Lab Fees	90
Books/Supplies	1450
Liability Insurance	<u>30</u>
	\$8570
MEDICAL BILLING SPECIALIST CERTIFICATE	
Tuition and Fees	\$5000
Application Fee	30
Lab Fees	35
Books/Supplies	<u>1600</u>
	\$6665
PHYSICAL THERAPIST ASSISTANT	
Tuition and Fees	\$7600
Application Fee	30
Lab Fees	250
Books	650
Liability Insurance	<u>30</u>
	\$8530
PRACTICAL NURSE	
Tuition and Fees	\$6200
Application Fee	30
Lab Fees	270
Books	2100
Liability Insurance	24
Uniforms	<u>221</u>
	\$8845
RESPIRATORY CARE	
Tuition and Fees	\$8800
Application Fee	30
Books/Supplies	1400
Uniforms	63
Lab Fees	395
Liability Insurance	<u>42</u>
	\$10730
SURGICAL TECHNOLOGY CERTIFICATE	
Tuition and Fees	\$5400
Application Fee	30
Insurance	90
Lab Fees	335
Books/Supplies	<u>1400</u>
	\$7255



# 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-Bozeman since July 1, 1994.

## ACCREDITATION

Montana State University-Great Falls College of Technology is fully accredited by Northwest Association Commission on Colleges, 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 fully 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 Veteran's Affairs, and Montana Department of Vocational Rehabilitation Services.

## IMPORTANT COLLEGE REGULATIONS AND POLICIES

### 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. Counselors at the 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.

### 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. A brochure which provides campus crime prevention information as well as statistics on the incidence of campus crime is available from the Main Office.

### 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, and 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

# GENERAL INFORMATION

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employment, unreasonably interferes with an individual's work performance or creates an intimidating, hostile or offensive work environment.

The College extends these protections beyond its employees to include its students, other consumers, and members of the general public who come into contact with the College or its agents.

Anyone who believes they are experiencing sexual harassment should immediately contact the College's Equal Employment Opportunity/Affirmative Action Officer, located in the Academic Resources office, to discuss options for resolving the issue. 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 EEO/AA Officer 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 the EEO/AA officer or online.

## 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, disadvantage, religion, political affiliation and/or national origin.

The College's Affirmative Action Officer is the Disability Service Coordinator, 2100 16th Avenue South, Great Falls, MT 59405. Telephone: 406-771-4300.

## COMPUTER & NETWORK USAGE POLICY

This Campus is pleased to be able to offer students a wide variety of computer facilities, services, equipment, and software. Students are encouraged to use them within the 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.montana.edu/wochelp/borpol/bot1300/bot1300.htm>. Failure to comply with these guidelines may result in disciplinary action, including expulsion from the campus 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 kiosk outside the bookstore. Students and non-students are welcome to use the computer kiosk, but are asked to share that resource with others who wish to use it. Similarly, students and non-students may use the computers in the library to meet their informational needs, although students currently enrolled at the Campus are given priority for computer use in that setting. The library's computers may not be used for communicative purposes – for instance, personal e-mail and chat rooms.

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 should not be in computer labs or classrooms without the approval and presence of the appropriate instructor, assistant or technician.

- *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 if stored on MSU – Great Falls Campus's 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 on this Campus, 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 of that individual, unless authorized by the Dean of the College in compliance with law or regulation.

- *Libel, Slander, and Harassment*

No member of the Campus community may, under any circumstances, use MSU Great Falls Campus's 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

# GENERAL INFORMATION

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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 campus 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 Campus Computer Services 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 the MSU-Great Falls Campus may not be used for compensated outside work or work for the benefit of organizations not related to the MSU-Great Falls Campus without written permission from the Dean. Electronic gambling, stock trading, or any other financial gain method conducted on Campus computers, services, or networks is forbidden. State law also restricts the use of Campus computer systems for political advocacy or for commercial advertising.

- *System Security*

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

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

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



# ADMISSIONS

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## APPLICANTS

As an open admission institution, Montana State University-Great Falls College of Technology will attempt to admit all persons who complete admission requirements. We reserve 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 campus community, or who has failed to maintain satisfactory academic progress. Applicants/current students may be asked to complete either an Inquiry into Student Disclosure form or an Admissions Academic Appeal form before an admissions decision is made or changed.

Notification of admission decision will be mailed to the applicant. Admission to the College does not guarantee admission into 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 programs 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, then 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 is 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's 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:

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.

Questions regarding residency status should be addressed to the Admissions & Records Office.

## ADMISSION REQUIREMENTS

1. COMPLETE AND SUBMIT APPLICATION FOR ADMISSION  
Applications for admission may be obtained from the Admissions & Records Office at the College, on the college's website [www.msugf.edu](http://www.msugf.edu), from other units of the University System, and from most high schools in the state. Prospective students are encouraged to consult with an advisor 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 an advisor.

A one-time non-refundable \$30 application fee must accompany the Application for Admission.

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 the Admissions & Records Office. High schools must be fully regionally 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 issuing institution.

# ADMISSIONS

## 3. IMMUNIZATION

In order to be in compliance with Montana state law, amended in 1993, students born after January 1, 1957, taking seven (7) or more credits OR enrolled in a certificate/degree/transfer program must:

- Submit proof of 2 vaccinations against measles and one against rubella. Immunizations must have been given after 1967 and after the student's first birthday and must have been administered at least 30 days apart. Current immunizations must have been administered in the form of the MMR vaccine. Immunizations must be documented by a physician, registered nurse, or school official; or
- Submit titer test results demonstrating previous vaccination; or
- Submit documentation of having contracted measles and rubella. Documentation by a physician is required including dates of illness; or
- File a medical or religious exemption.

**Such evidence must be submitted before students will be permitted to register for courses.**

## 4. COMPLETE ADMISSION ASSESSMENT

Before enrolling in a Math or English course, all applicants are required to take the ASSET 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 ASSET is a standardized test that is diagnostic in nature and 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 ASSET can be made by contacting the Information Desk at 406-771-4414 or 1-800-446-2698 (in Montana).

Students may choose to have their ACT or SAT scores sent to the College to determine placement. Please have scores sent to the Admissions & Records Office 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  
609-771-7600 [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 Services will provide, for a \$10 fee, monitoring for admission assessments. Individuals must arrange for the assessment materials to be sent to the College and for an assessment date through the Student Services staff. A forwarding address to the appropriate institution must also be provided.

## 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 MSU-Great Falls College of Technology transcript.

## SPECIAL ADMISSION

A special admission committee reviews applications from students who do not meet the regular admission standards.

## 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 seven credits. Home school students must complete the ACT, SAT, or ASSET 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 and 173 on the computer-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);
3. Proof of completion of the equivalent of an American high school education with satisfactory grades. Transcripts need to 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;

# ADMISSIONS

- 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 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.

## STUDENT ORIENTATION

Student orientation/registration sessions, called Active in the College Experience (ACE), are conducted before each semester to acquaint new students with academic assistance, special services, and academic and institutional policies as well as class registration.

If enrolling for a Math or English course, new students must have taken the ASSET, ACT or SAT test within the last three years prior to ACE. Please call 406-771-4414 to sign up for ACE registration.

## CREDIT BY EXAMINATION

College credit earned by currently enrolled students who successfully complete approved advanced placement examinations, CLEP 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 the College's Admissions & Records Office. Grades of 3, 4, or 5 on an advanced placement examination will be granted college credit for the appropriate courses.

### CHALLENGE

The College offers challenge examinations for some of the courses described in this catalog. If an applicant or student feels he/she has knowledge about a particular subject area and wishes to take an examination to demonstrate that knowledge, he/she may, with the approval of faculty, take a comprehensive examination. If a student's performance is sufficient to merit the awarding of credit, a grade of "P" (generally equivalent to a "C" or above) will be recorded on the student's academic record. There is a \$20.00 fee associated with each challenge exam regardless of the outcome of the exam. A course may not be challenged which is a prerequisite to a second course that has been completed. A course that has been failed or previously audited may not be challenged.

### 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- or two-year certificates or degrees at Montana State University-Great Falls College of Technology while still in high school. It 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. Courses that have been approved for Tech Prep credit with at least one high school are identified with the Tech Prep logo (see above) in the course descriptions section of this catalog.

## 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 the Admissions & Records Office. Official transcripts must be sent directly by the issuing institution to the following address:  
Admissions & Records Office  
MSU-Great Falls COT  
2100 16<sup>th</sup> Ave S  
Great Falls, MT 59405
- It is the responsibility of the student to pursue the status of that evaluation upon enrollment.
- Grades less than a "C" (2.00 GPA) 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.
- Transfer credit will be accepted only as it applies to the student's declared program of study.
- To receive a certificate/degree, 51 percent of the course work required by the student's program must be completed at the College.
- Transfer credit will be posted on the transcript for accepted transferred course work.
- Transfer grades are not figured in the grade point average (GPA).

# ADMISSIONS

## TRANSFER TO OTHER INSTITUTIONS

Montana State University-Great Falls College of Technology is fully accredited by Northwest Association Commission on Colleges. A listing of websites providing transfer equivalencies within Montana may be found at the following website: <http://www.montana.edu/mus/transfer/policies.htm>. For more information regarding the transferability of courses to other institutions, contact the institution you are planning to attend.

The College offers a number of transfer options including the Montana University System Transferable Core and the Associate of Science and Associate of Arts in general education. In addition, students may choose from a variety of recommended and articulated Associate of Science degree programs with emphases in elementary education, business education, computer information systems, and business. Descriptions of these programs are listed under their corresponding departments in the Programs of Study section in this catalog.

## 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 2 consecutive semesters, excluding summer. Readmit applications are available in Admissions and Records office or by request.

Returning students must follow the graduation requirements for the catalog in 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 Re-admission. Such appeals will be reviewed by the Registrar/Admissions Committee before the student is informed in writing of the re-admission decision.

## ADVISORS

Students will be assigned academic advisors when they are accepted. Advisors are generally faculty members who will assist in course scheduling each term, and be available to provide information regarding courses and/or academic progress as needed. Students must meet with their advisor each semester to plan and register for the upcoming semester.

## TUITION AND FEES

### DEFERRED PAYMENT PLAN

The deferred fee 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 the Business Office. Installment payments and applicable fees are collected and

processed by the Business Office.

## FEE REFUNDS

### WITHDRAWAL FROM THE COLLEGE

Unless otherwise required by the Higher Education Act of 1965, as amended, 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:

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

\* 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 Fee are nonrefundable.**

### 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. If a student drops a course or courses and then withdraws, all dropped courses will fall under the withdrawal/refund policy. Summer term(s) are pro-rated.

Fee refunds are processed approximately 5 weeks after the start of a semester and mailed to the student's permanent address.

### RETURNED CHECK POLICY

A student will be responsible for fees charged on a returned check. The charge will reflect the current bank rates.

### SEMINARS

A modified refund policy is in place for seminars. Please contact the Business Office regarding seminar fee refunds - 406-771-4315.

## STUDENTS OWING DEBTS

The College reserves the right to deny registration access to a student who has an overdue debt to and Montana State University campus. Transcripts, certificates, and degrees will be withheld from any student owing tuition, fees, or charges to MSU. 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.

# TUITION AND FEES

## 2004-2005

The Montana Board of Regents of Higher Education has approved the following tuition and fees schedule for the 2003-2004 academic year beginning Fall Term 2003. 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 non-refundable	Resident Tuition	Building Fee	Computer Fee	Equipment Fee	Network Services Fee	Library Fee	Student Government	Total Resident Fee	Additional Nonresident Fee	Total Nonresident Tuition
1	\$30.00	\$97.92	\$4.97	\$10.46	\$2.49	\$2.50	\$1.34	\$8.00	\$157.68	\$214.23	\$336.12
2	\$30.00	\$195.84	\$9.94	\$13.92	\$4.98	\$5.00	\$2.68	\$8.00	\$270.36	\$428.46	\$629.25
3	\$30.00	\$293.76	\$14.91	\$17.38	\$7.47	\$7.50	\$4.02	\$8.00	\$383.04	\$642.69	\$922.35
4	\$30.00	\$391.68	\$19.88	\$20.84	\$10.00	\$10.00	\$5.36	\$8.00	\$495.72	\$856.92	\$1,352.64
5	\$30.00	\$489.60	\$24.85	\$24.30	\$12.45	\$12.50	\$6.70	\$8.00	\$608.40	\$1,071.15	\$1,679.55
6	\$30.00	\$587.52	\$29.82	\$27.76	\$14.94	\$15.00	\$8.04	\$8.00	\$721.08	\$1,285.38	\$2,006.46
7	\$30.00	\$685.44	\$34.79	\$31.23	\$17.43	\$17.50	\$9.38	\$8.00	\$833.77	\$1,499.61	\$2,333.38
8	\$30.00	\$783.36	\$39.76	\$34.69	\$19.92	\$20.00	\$10.72	\$8.00	\$946.45	\$1,713.84	\$2,660.29
9	\$30.00	\$881.28	\$44.73	\$38.15	\$22.41	\$22.50	\$12.06	\$8.00	\$1,059.13	\$1,928.07	\$2,987.20
10	\$30.00	\$979.20	\$49.70	\$41.61	\$24.90	\$25.00	\$13.40	\$8.00	\$1,171.81	\$2,142.30	\$3,314.11
11	\$30.00	\$1,077.12	\$54.67	\$45.07	\$27.39	\$27.50	\$14.74	\$8.00	\$1,284.49	\$2,356.53	\$3,641.02
12-25	\$30.00	\$1,175.04	\$59.64	\$48.53	\$29.88	\$30.00	\$16.08	\$8.00	\$1,397.17	\$2,570.76	\$3,967.93

# ACADEMIC INFORMATION

## 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's office 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 should not carry more than 13 credits in 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 the Admissions & Records Office by completing the Application for Re-admission and the Admission Academic Progress Appeal Form. If the appeal for re-admission is approved, students will be re-admitted on probationary status, limiting students to 13 credits in the fall and spring terms and 6 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 institution(s).
- 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.

## 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 3 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 in the Northwest Accreditation Handbook.

## ATTENDANCE

Absences are handled 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 syllabi and/or verbally during the first or second class meeting.

## REGISTRATION

Registration for continuing students is available via "Banner Web" on the Internet. For registration purposes, continuing students are defined as students who have been enrolled at MSU – COT in at least one of the last two academic terms (excluding summer). Registration information and dates for new and continuing students will be available on the Academic Calendar posted on the College website.

The College reserves the right to deny registration access to a student who has an overdue debt to Montana State University. Transcripts, certificates, and degrees will be withheld from any student owing tuition, fees, or charges to MSU. In the event a student has not returned books and/or materials belonging to this College or another Montana University System unit, transcripts, certificates, and degrees may be withheld.

### **Web Services: Banner Web** ***www.msugf.edu***

*To register, check grades, transcripts, course schedules, go to "Banner Web."*

#### *Login to Secure Area*

User ID	Social Security Number or student ID number
PIN	6 numeric digits

#### **Student Services**

- ❖ Registration
  - Add/Drop Classes
  - Look Up Classes
  - Fee Assessment
- ❖ Student Records
  - View Student Holds
  - Final Grades
  - Unofficial Transcript
  - Account Summary

#### **Personal Information**

- Change PIN
- View Address Information

Please contact Student Services if you experience any problems accessing or using Banner Web.

# ACADEMIC INFORMATION

## ADDING AND DROPPING COURSES

Students may add courses with faculty approval up to the end of the 5th day of the semester.

All students may drop one or more courses with no grade up to the end of the 15th day of the semester. Although no refund will be given, students may continue to drop one or more courses with a grade of a “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 the Admissions & Records Office, 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 drop or add a course after the term has begun.

1. Obtain an official drop/add card from the Admissions & Records Office;
2. Complete the card and secure the necessary faculty signature(s). Note: No signature is required for dropping; and
3. Return the card to the Admissions & Records Office.

## WITHDRAWAL FROM THE COLLEGE

All students planning to completely withdraw from courses must consult a Student Services counselor. The counselor 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 in which the student is enrolled at the time of withdrawal from the College will be entered on the student's transcript in accordance with the grading policy in effect.

## EVALUATION OF COURSES

Students are provided the opportunity to evaluate each of the courses they complete at the College during the final 4 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 who complete a course. 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
B.....	Above average.....	3.0
C.....	Average.....	2.0

D.....	Passing.....	1.0
P.....	Pass.....	0
AU.....	Audit.....	0
CR.....	Credit.....	0
W.....	Withdraw.....	0
F.....	Failing.....	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.

## INCOMPLETE

An incomplete grade is issued at faculty discretion when student course work has been satisfactory, 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 or circumstances 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 roster, the student will be issued a not recorded (“NR”) grade until the proper paperwork is completed and submitted to the Records Office. If the faculty member 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”.

## PASS/FAIL POLICY

As a general policy, courses at Montana State University-Great Falls College of Technology are graded with the letter grades A, B, C, 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.

# ACADEMIC INFORMATION

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## 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 in courses with grades of A, B, C, D and F.

## GRADE REPORTS

Grades are available on Banner Web one week after the end of Finals Week.

## CHANGE OF GRADE

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

## COURSE WAIVER

A course may be waived if the student has previously completed equivalent work. All waivers must be approved by the department chair, lead faculty for the program, and the registrar. College credit will not be given for a waiver.

## 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, lead faculty 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.

## 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 advisors: Mike O'Lear and Becky Johnson.

## GRADUATION HONORS

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

## GRADUATION

Montana State University-Great Falls College of Technology students may follow the catalog in effect when they began their enrollment at the College or may elect to follow any subsequent catalog, if there has not been a break of more than one academic year in their attendance. If a student is absent for two or more semesters, the catalog in effect at the time of re-admission 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. Enrolled students must pass all courses with a minimum grade of "C". Students are informed of other specific program policies and requirements both at the time of 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 in the Main Office. A \$25 non-refundable graduation fee is due upon submission of the application to the Business Office. Application deadlines are published on page iv of 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 will be awarded a certificate/degree upon satisfactory completion of all program requirements, provided that 51% of the course work required in the degree related 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

# ACADEMIC INFORMATION

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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.

## TRANSCRIPT OF RECORD

Walk-in requests for transcripts should be turned in to the Business Office. 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 the Registrar's Office of payment.

Under normal conditions, requests for transcripts will be processed within three to five working days after being received by the Registrar's Office. 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. Please send your request to:

Registrar's Office-Transcripts  
MSU-Great Falls COT  
2100 16<sup>th</sup> 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 issuing 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" and logging onto the secure area.

## DEGREES OFFERED

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

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

Montana State University-Great Falls College of Technology offers A.A.S. 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. At MSU – Great Falls College of Technology, students may choose to emphasize programs of study preparatory to specific career choices (e.g., visual arts, history, communications) or they may choose to emphasize a general program of study.

### 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. At MSU—Great Falls College of Technology, students may choose to emphasize programs of study preparatory to specific career choices (e.g., pre-education, social science, mathematics), or they may choose to emphasize a general program of study.

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

“Reality is merely an illusion, albeit a very persistent one.”

- Albert Einstein (1875-1955)

# SPECIAL ACADEMIC OPPORTUNITIES

## MONTANA UNIVERSITY SYSTEM HIGHER EDUCATION CENTER IN GREAT FALLS

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 Main Office or by calling the College at 406-268-3700 or 1-800-446-2698.

## DISTANCE EDUCATION DEPARTMENT

The College offers Internet courses which are an extension of the on campus course offerings. Over 75 Internet courses are offered in general education, computer technology, business, health science, and office technology. During the summer term, emphasis is placed on offering Internet courses which support programs at the College of Technology, as well as on other Montana State University campuses.

### PROGRAMS OFFERED ON THE INTERNET

- Medical Transcription Certificate
- Health Information Coding Specialist Certificate
- Health Information Technology AAS Degree
- Medical Billing Specialist Certificate
- Montana University System Core

Additional information, including detailed course descriptions, is available on our website at <http://distance.msugf.edu>. If you have 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 our students working part and full-time. These faculty are trained and supported by the Distance Education Department to deliver effective instruction over the Internet. Most courses are delivered using the WebCT course management software. To avoid confusion, online students follow the same registration procedures as our 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 COTage 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 if you would like to know more about the programs and/or course offerings. We want our students at a distance to know they are an

important part of our campus community!

## MIXED-MODE (HYBRID) CLASSES

A hybrid or mixed-mode course combines the traditional classroom setting with an online component. The amount of 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.

### ADVANTAGES: YOU CAN –

- Take courses from the comfort of your home.
- Earn a degree online while you work.
- Log in and complete assignments anytime 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 schedule as on campus schedules.
- Learn to use the technology along with the content of the course.
- Own or purchase updated software and a newer personal computer for some courses. Microsoft Office XP 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.

## OUTREACH AND CONTINUING EDUCATION

The Outreach and Continuing Education Department of Montana State University-Great Falls College of Technology is committed to serving the Great Falls community by offering educational opportunities that respond to your needs and cover current trends in technology, business and leisure. 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 courses and programs to off-campus sites as well as credit-bearing seminars on campus. Credit-bearing courses provide excellent professional development opportunities for teachers who are in need of rec licensure with the State. OPI Renewal units are also available.

Computer seminars provide participants with the latest technology in word processing, spreadsheets, database, multi-media, and accounting applications. These one-credit seminars are offered each semester on the MSU-Great Falls campus and at the Bozeman Tech Center.

# SPECIAL ACADEMIC OPPORTUNITIES

Those interested should call the Main Office at 406-771-4300 or 1-800-446-2698 to request a schedule for various computer application seminars and off-campus courses and programs. You may also join our mailing list by visiting our website at <http://outreach.msugf.edu>.

## CONTINUING EDUCATION CENTER

The Center for Continuing Education provides non-credit workshops that train and upgrade participants' skills in health, computer management, general education, technology fields, and other identified needs of Montana's workforce and business community.

Semester schedules 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>.

## CUSTOMIZED TRAINING CENTERS:

### LOCATIONS IN GREAT FALLS AND BOZEMAN

The Customized Training Centers assists businesses, including those located in rural communities, to maximize their ability to make a profit. It brings together groups of business people for effective exchange of knowledge and develops and provides 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.

The College takes pride in its faculty who are skilled in various instructional areas. They are prepared to provide training for business and industry and to develop workshops fitting the special needs of a particular company.

### Customized Training Representatives

Bozeman 406-522-0830

Great Falls 406-454-3217

MSU-GF Campus 406-771-4300; 800-446-2698

## SPECIALIZED ENDORSEMENTS

The College's academic departments offer Specialized Endorsement programs which provide the student with the opportunity to move rapidly into the job market with a core of skills. The Specialized Endorsement programs are offered during the day, late afternoon, and evening as well as 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.

*Students seeking a Specialized Endorsement are not eligible for Financial Aid.*

## BUSINESS MANAGEMENT

Course No.	Title	Credits
BUS 106	Introduction to Business	3
BUS 255*	Legal Environment	3
BUS 240*	Advertising	3
BUS 230*	Management	3
BUS 235*	Marketing	3
COMM 130	Public Speaking <b>OR</b>	3
COMM 135	Interpersonal Communications	3
	<b>Total</b>	<b>18</b>

## COMPUTERIZED ACCOUNTING

Course No.	Title	Credits
ACCT 101	Accounting Procedures I	3
ACCT 102*	Accounting Procedures II	3
ACCT 190*	Payroll Accounting	3
CS 110	Introduction to Computers	3
CS 220*	Electronic Spreadsheets	3
MATH 104**	Business Mathematics	4
OO 173	Computer Calculators	1
	<b>Total</b>	<b>20</b>

## LEGAL INFORMATION

Course No.	Title	Credits
CS 110	Introduction to Computers	3
ENGL 120**	Introduction to Composition <b>OR</b>	3
ENGL 121**	Composition I	3
OO 107	Keyboarding Basics <b>OR</b>	3
OO 108*	Adv Keyboarding and Formatting	3
OO 180*	Legal Studies I	4
OO 260*	Machine Transcription	3
OO 265*	WordPerfect <b>OR</b>	3
OO 266*	Microsoft Word	3
OO 287*	Legal Transcription	4
	<b>Total</b>	<b>23</b>

## MICROCOMPUTER APPLICATIONS

Course No.	Title	Credits
CS 110	Introduction to Computers	3
CS 120*	Internet Essentials	2
CS 166*	Computer Operating Systems	3
CS 205*	Database Management	3
CS 220*	Electronic Spreadsheets	3
CS 240*	Software Integration	2
MATH 103**	Introductory Algebra	4
OO 265*	WordPerfect <b>OR</b>	3
OO 266*	Microsoft Word	3
	<b>Total</b>	<b>23</b>

## MICROCOMPUTER WORD PROCESSING

Course No.	Title	Credits
CS 110	Introduction to Computers	3
CS 120	Internet Essentials	2
ENGL 120**	Introduction to Composition <b>OR</b>	3
ENGL 121**	Composition I	3
OO 107	Keyboarding Basics	3
OO 108*	Advanced Keyboarding and Formatting	3
OO 265*	WordPerfect <b>OR</b>	3
OO 266*	Microsoft Word	3
OO 295*	Administrative Office Proc	3
	<b>Total</b>	<b>20</b>

14 \* Indicates prerequisites needed  
 \*\* Placement in course(s) is determined by admissions assessment

# SPECIAL ACADEMIC OPPORTUNITIES

## PARAMEDIC ENDORSEMENT

Course	No.	Title	Credits
AH	140*	Pharmacology	2
AH	145	Intro to Medical Terms	1
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
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
Total			32

Note: This endorsement is primarily aimed at firefighters looking for endorsement only, who do not request or require a degree or certification.

## PROFESSIONAL COMMUNICATIONS

Course	No.	Title	Credits
COMM	130	Public Speaking	3
COMM	135	Interpersonal Communications	3
CS	110	Introduction to Computers	3
ENGL	120**	Intro to Composition <b>OR</b>	3
ENGL	121**	Composition I	3
ENGL	124*	Business & Prof Comm <b>OR</b>	3
ENGL	228*	Strategies of Business Comm	3
OO	107	Keyboarding Basics <b>OR</b>	3
OO	108*	Advanced Keyboarding and Formatting	3
OO	265*	WordPerfect <b>OR</b>	3
OO	266*	Microsoft Word	3
Total			21

## INDUSTRY STANDARD CERTIFICATIONS

Montana State University – Great Falls College of Technology offers courses that lead to Industry Standard Certification. They are as follows:

### COMPTIA NETWORK+

Course	No.	Title	Credits
CS	126*	Networking Basics	4
CS	176*	Router & Routing Basics	4
CS	226*	Switching & Intermediate Routing	4
CS	276*	WAN Technologies	4

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

### COMPTIA A+

Course	No.	Title	Credits
CS	270*	PC Troubleshooting/Main I	3
CS	271*	PC Troubleshooting/Main II	3

Note: The PC Troubleshooting courses are divided into two separate courses so that both portions of the A+ exam can be covered.

## CISCO CERTIFIED NETWORKING ASSOCIATE (CCNA)

Course	No.	Title	Credits
CS	126*	Networking Basics	4†
CS	176*	Router & Routing Basics	4†
CS	226*	Switching & Intermediate Routing	4†
CS	276*	WAN Technologies	4†

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.)

† A grade of “C” or above must be achieved in each course to continue to the next level.

## CISCO CERTIFIED NETWORKING PROFESSIONAL (CCNP)

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

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
CS	211*	Network Operating Sys Windows	4

## MICROSOFT OFFICE SPECIALIST MICROSOFT WORD 2003

Course	No.	Title	Credits
OO	266*	Microsoft Word	3

Note: After successfully completing the course listed above, students are prepared to take the MOS Word 2003 Core or Expert industry certification (depending on the student’s consideration of readiness) examination at the local certified Testing Center.

## MICROSOFT OFFICE SPECIALIST

### MICROSOFT POWERPOINT 2003

Course	No.	Title	Credits
CS	140*	Presentation Fundamentals	1

Note: After successfully completing the course listed above, students are prepared to take the MOS PowerPoint industry certification examination at a local certified Testing Center.

## MICROSOFT OFFICE SPECIALIST MICROSOFT EXCEL 2003

Course	No.	Title	Credits
CS	220*	Electronic Spreadsheets	3

Note: After successfully completing the course listed above, students are prepared to take the MOS Excel 2003 Core or Expert industry certification (depending on the student’s consideration of readiness) examination at a local certified Testing Center.

\* Indicates prerequisites needed  
 \*\* Placement in course(s) is determined by admissions assessment

# SPECIAL ACADEMIC OPPORTUNITIES

## MICROSOFT OFFICE SPECIALIST MICROSOFT ACCESS 2003

Course No.	Title	Credits
CS 205*	Database Management	3

Note: After successfully completing the course listed above, students are prepared to take the MOS Access 2003 Core or Expert 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
CS 126*	Networking Basics	4
CS 166*	Operating Systems	4
CS 176*	Router & Routing Basics	4
CS 211*	Network Operating Sys Windows	4
CS 270*	PC Trbleshting/Maintenance I	3
CS 271*	PC Trbleshting/Maintenance II	3

The MCSA is a new Microsoft Exam that combines Microsoft industry examinations with CompTIA certification examinations. Please 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.

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

## WOW CERTIFIED WEB DESIGNER ASSOCIATE (CWDSA)

### WOW CERTIFIED ASSOCIATE WEB MASTER (CAW)

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

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. They 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.

## MSU-GREAT FALLS TESTING CENTER

The MSU-Great Falls College of Technology Test 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.

Through our testing center, we offer more than 125 exams in various categories, including information technology certification and professional licensure. These exams include:

- Microsoft Certifications (MCP, MCSA, MCSE, MOS)
- 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 test center.

You can 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 Test Center is housed on the MSU-Great Falls College of Technology 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)

# FINANCIAL AID

## ELIGIBILITY REQUIREMENTS

All recipients of Federal financial aid at Montana State University-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 Office of Financial Aid;
- Be enrolled as a regular student in a financial aid eligible certificate or degree program generally at least half time (specialized endorsements are not eligible for financial aid);
- Maintain Satisfactory Academic Progress in accordance with the policy of the Office of Financial Aid;
- 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.

The Office of Financial Aid may not award financial assistance in the form of loans, grants, scholarships, special funds, subsidies compensation for work, or prizes to vocational education students on the basis of race, color, national origin, sex, or handicap, except to overcome the effects of past discrimination. The Office of Financial Aid 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 Office of Financial Aid'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.

## ASSISTANCE IN APPLYING FOR FINANCIAL AID

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 Office of Financial Aid, Montana State University-Great Falls College of Technology, 2100 16<sup>th</sup> Avenue South, Great Falls, MT 59405.

## 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.

### **The FAFSA Priority Application Date is March 1**

for all students attending in the Fall, Spring or  
Summer Terms.

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 Deadlines\*\***

March 1	Fall, Spring, Summer
July 1	Fall
November 1	Spring

## 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 at the Office of Financial Aid, or online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). If the applicant completes the paper form, it will need to be mailed in the envelope provided. If the applicant submits an electronic FAFSA they will either mail in a signature page or sign the application with a PIN number. 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 this form, an applicant will receive a Federal Student Aid Report (SAR) in the mail or online. Students should submit the SAR to the Office of Financial Aid as quickly as possible.

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

Students who have incomplete financial aid files will be ineligible for financial assistance until files have been completed.

# FINANCIAL AID

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## 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 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 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 Office of Financial Aid. 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.

### 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 Office of Financial Aid. 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.

### 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.

### MONTANA HIGHER EDUCATION GRANT (MTHEG)

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.

### MONTANA BAKER GRANT (MTAP)

The Montana Baker Grant is available to Montana students who have earned a predetermined amount of income the previous year and who are not receiving a set amount of other gift aid. Grants are between \$100-\$1000 depending on an individual's eligibility. Funding is limited and is awarded on a first-come, first-served basis.

## FEE WAIVERS

Fee waivers are administered by the Office of Financial Aid. For all students, inquiries should be directed to the Office of Financial Aid. 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.

In order to retain the fee waiver, it is necessary to maintain satisfactory academic progress in accordance with the Office of Financial Aid policy.

### HONORABLY DISCHARGED VETERANS' FEE WAIVER

The registration fee and tuition shall be waived for honorably discharged persons who served with the United States Armed Forces in any of its wars 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 Office of Financial Aid or the Financial Aid website at [www.msugf.edu/financialaid/statefeewaivers.htm](http://www.msugf.edu/financialaid/statefeewaivers.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 Office of Financial Aid.

### AMERICAN INDIAN FEE WAIVER

This waives the registration fee and tuition each semester and is awarded by the Office of Financial Aid 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 Office of Financial Aid or online at [www.msugf.edu/financialaid/statefeewaivers.htm](http://www.msugf.edu/financialaid/statefeewaivers.htm). Recipients of this fee waiver are subject to satisfactory academic progress requirements.

# FINANCIAL AID

## MONTANA SENIOR CITIZEN FEE WAIVER

Tuition and registration fees shall be waived for students classified as in-state residents for fee purposes and who are at least 62 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 Office of Financial Aid, along with the application.

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

Registration fee and 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 Office of Financial Aid. 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 Office of Financial Aid, 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 or more 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 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 Office of Financial Aid 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 Office of Financial Aid for this application.

### HIGH SCHOOL HONOR SCHOLARSHIP

The principal of each fully accredited Montana high school may name one or more members from each year's graduating class to receive a High School Honor Scholarship issued by the Montana University System. This scholarship (fee waiver) is applicable at any of the units of the Montana University System and covers the registration fee and tuition for 2 semesters. Recipients must submit a copy of their High School Honor Scholarship letter from the Commissioner of Higher Education to the Office of Financial Aid one month prior to registration.

### HONOR SCHOLARSHIP FOR NATIONAL MERIT SCHOLARSHIP SEMIFINALISTS

Tuition and the registration fee 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.asp](http://www.msugf.edu/finaid/scholarships.asp). The Office of Financial Aid will post scholarship information and deadlines on the financial aid website as information becomes available.

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

**Remember:** scholarship application deadlines are crucial!!

### 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. **First-year, first-time borrowers at Montana State University - Great Falls College of Technology will have the first disbursement of their loan delayed for 30 calendar days from the first day of classes.**

# FINANCIAL AID

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First-time borrowers at MSU-Great Falls College of Technology will be required to attend an entrance counseling session before their first check is released.

All borrowers must maintain satisfactory academic progress in accordance with the policy of the Office of Financial Aid 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 made **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 Office of Financial Aid verify their enrollment with the Department of Veterans Affairs before benefits will begin.

Veterans attending MSU-Great Falls COT must maintain a 2.0 Cumulative GPA. If the student falls below a 2.0 CGPA they will have one semester to raise their GPA to a 2.0. If the student is unable to do this, they will be placed on suspension and will have to sit out a term before they are able to return. Appeals are available for extenuating circumstances.

For information on Veterans' Benefits, contact the Office of Financial Aid 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 may offer assistance to students who qualify for their programs. For information regarding eligibility requirements, contact the specific program. The Office of Financial Aid must be notified by the student if any assistance is received from an outside agency.

## WITHDRAWALS/CHANGES IN ENROLLMENT STATUS

Students receiving financial aid are expected to complete a designated percentage of the credits for which they are funded each academic term. The Office of Financial Aid 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 classes 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 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, and refunds for these students 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, 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 Office of Financial Aid.
4. Institutional and student responsibilities with regard to the return of the Title IV funds.
  - 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;
    - Returning any Title IV funds that are due to the Title IV programs.
  - The student's responsibilities 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 Office of Financial Aid.

## TRANSFER STUDENTS

Students who are on financial aid suspension from another institution may be placed on financial aid probation at Montana

# FINANCIAL AID

State University - Great Falls College of Technology. They will have one academic term in which to earn a 2.0 grade point average (GPA) and complete the minimum percentage of credits attempted. Students who are on financial aid probation and do not earn a 2.0 GPA or complete the minimum percentage of credits attempted will be suspended from receiving further financial aid until they meet satisfactory academic progress requirements at the College.

## ATTENDANCE

Attendance is mandatory to receive financial aid. You must attend your classes on a regular basis and complete them to continue to receive your financial aid. If you stop attending part or all of your classes, you may have to repay part or all of the financial aid you have received.

## SATISFACTORY ACADEMIC PROGRESS REQUIREMENTS FOR FINANCIAL AID RECIPIENTS

Federal and State financial aid regulations require that all financial aid recipients maintain satisfactory academic progress in their programs of study. 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 Office of Financial Aid.

- 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, the student will be placed on financial aid suspension;
- Students must complete 67 percent of the number of attempted credits as of the end of the add/drop period each term;
- 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.

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 Office of Financial Aid for review of circumstances. Forms to appeal are available online at [www.msugf.edu/finaid/sap.asp](http://www.msugf.edu/finaid/sap.asp) or in the Office of Financial Aid. 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 Office of Financial Aid for a complete satisfactory academic progress policy for financial aid recipients.

## CHANGES TO FINANCIAL AID POLICIES OR REQUIREMENTS

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.



# STUDENT INFORMATION

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## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

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 students' privacy or other rights. Such requests should be made as soon as the student becomes aware of the inaccuracy or any other problem.

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, 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 no later than the 10th class day of the academic term.

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 Admissions and Records Office.

## 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 will not be tolerated at MSU-Great Falls College of Technology. The consequence for the first such violation is at the discretion of the instructor and may range from a failing grade for the particular assignment/test to a failing grade in the course in which the act of academic dishonesty occurred. Faculty must report all violations of academic integrity to their respective Department Chairs. In the instance of repeated offenses, the Department Chair will recommend disciplinary action ranging from a failing grade for the assignment/course up to and including expulsion from the College. Appeals of Department Chair decisions on academic dishonesty are made to the Associate Dean for Academic Affairs.

## 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, Emergency Response Services (911) will be called. Students are responsible for the cost of transport and treatment for accidents or illness. Students will be requested to complete an Incident Report form available from the Main Office.

1. 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 Medical Services.
2. If the student is unconscious, unable to respond, or the injury or illness is perceived to be of a life-threatening nature, Emergency Response Services (911) will be called. Students are responsible for the cost of transport and treatment for incidences of accident or illness. Students will be requested to complete an incident report form, which can be obtained from the Main Office.

## ASSOCIATED STUDENTS

The Associated Students organization of Montana State University – Great Falls College of Technology acts on behalf of the MSU-GF COT student body by participating in a variety of campus planning activities. Some of the activities include: providing input to the College's administrative staff 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. Associated Students' officers are elected at the end of each spring semester and hold office throughout the following year. The program Senators are elected each semester. Members of this organization also sit on various other College committees.

# STUDENT INFORMATION

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## BOOKSTORE

The bookstore carries an inventory of required textbooks and supplies. It also offers snack items, clothing, postage stamps, bus passes, and a check-cashing service.

## LIBRARY

The Montana State University-Great Falls Campus Library supports instruction and student learning by providing open access to information and knowledge. The Library's collection of books, videos, and periodicals is particularly strong in the subjects of allied health and business. Access to Library holdings is through a Web-based catalog. The Library also has electronic access to a rich array of resources including full-text periodicals and newspapers, periodical indexes, reference materials, and the catalogs of other libraries. The MSU proxy server gives students remote access to the library and its resources. A knowledgeable staff is available to help patrons with information needs. Library services include reference, individual and group instruction, interlibrary loan, and reserves. A current student ID is required to check out library items. For library access or information, call the library at (406) 771-4398 or visit the Library's Web site at: <http://library.msugf.edu>.

## CHANGE OF ADDRESS

A current mailing address, permanent address and telephone number should be on file in the Admissions & Records Office. A forwarding address should be provided when a student withdraws or graduates. A change of address form is available at the Information Desk or in the Admissions and Records office.

## COMMERCIAL ACTIVITIES/FUND RAISING

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.

## 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.

## 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.

## 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 Affirmative Action/Equal Opportunity Officer. That officer is Jill Davis, 2100 16th Avenue South, Great Falls, MT 59405. (Telephone: 771-4311; E-mail: [jdavis@msugf.edu](mailto:jdavis@msugf.edu)). 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 a counselor 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 College's Complaint Intake Officer, Mary Orham, located in Academic Resources, who will briefly discuss the nature of the complaint with the student and direct the complaint to the appropriate official. Generally, the Equal Opportunity Officer tries first to facilitate a resolution to the complaint through informal methods. However, this step may be bypassed at the discretion of the investigator or at the request of the complainant.
3. If all informal processes fail to produce a satisfactory resolution, the complainant 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 Complaint Intake Officer 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 complainant's attempts, if any, to resolve the grievance informally, and the precise remedy sought by the student. Complainants may use their own format for written complaints, or they may obtain a Formal Complaint Form from the Intake Officer.
4. All communication with the Intake and Equal Opportunity Officers will be held in confidence; however, the Equal Opportunity Officer may, in certain cases, assign the

# STUDENT INFORMATION

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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 Equal Opportunity Officer have the authority to halt an investigation. When the investigation has been completed, the Equal Opportunity Officer 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 Equal Opportunity Officer's 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 Equal Opportunity Officer. 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 for Academic Affairs. 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:

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 Head/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 Head within ten (10) working days after the student became aware of the academic action/decision. 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, a counselor in the College's Student Services Department will explain how to complete the written grievance formalizing the complaint, as well as how to follow 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 Head/Director will receive and review all evidence, interview each party, if possible, and render a written decision 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 Associate Dean for Academic Affairs.
6. Associate Dean's Review. Either party may appeal the Department Head's/Director's decision in writing to the Associate Dean for Academic Affairs, with copies to the instructor, student and the Department Head/Director. Such appeal will be filed within five (5) working days of receipt of the Department Head / Director's determination. The Associate Dean will submit a written decision to the student, instructor, and the Department Head/Director within ten (10) working days of receipt of the appeal. The decision of the Associate Dean is the final decision 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 Associate Dean of Academic Affairs, Academic Resources (771-4414) or our web page ([www.msugf.edu](http://www.msugf.edu)).

### 1. 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

# STUDENT INFORMATION

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 University or the health and safety of members of the University 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 Associate Dean for Academic Affairs and 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 Associate Dean. 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 Associate Dean will complete an initial investigation to determine what, if any, sanctions are warranted. If all parties involved – the Associate Dean, 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.

## 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 are encouraged to advocate for themselves to the extent possible, and 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 in Academic Resources, and be determined eligible by meeting all of the following criteria:

- Have a permanent or long-term ( $\geq 6$  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 Coordinator to determine what accommodations to request based on the needs of the student and the demands of the course. The medical, psychiatric and/or 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 Coordinator or found on the college website. Available accommodations include, but are not limited to:

- Extended test time
- Distraction-free testing environment
- Various other test accommodations
- Adaptive computer equipment
- Note takers
- Tutors
- Interpreter services
- Extended deadlines
- Ergonomic equipment
- Preferential classroom seating
- Tape recording lectures

# STUDENT INFORMATION

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

Building accessibility includes designated parking, curb cuts, an automatic door at the East entrance, ramp access to the second floor, Braille signage, and ramp access to theatre-style classrooms.

For more information, please contact Disability Services at 771-4311 (voice) or 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 Academic Resources. For more information, call the EOC Coordinator at 771-4326 or 1-800-446-2698, ext. 4326.

## MISCELLANEOUS INFORMATION

### FOOD AND BEVERAGES

Consumption of food and beverages is not allowed in computer equipped classrooms or in other posted areas.

### GUIDANCE AND COUNSELING

Professional staff is available to provide career, education, and personal assistance as well as admissions and financial aid information to prospective and enrolled students. Appointments can be scheduled at: 406-771-4414 or 1-800-446-2698.

### CAREER SERVICES

Career Services are provided on campus to all enrolled students and alumni. Career counseling is available to help students explore their personality, interests, values, and skills. In addition, students may receive assistance in locating temporary, full-, and part-time work locally as well as throughout Montana and the United States. Job placement is a team effort involving program faculty, the Career Services office, and the student. Career Services is located in academic Resources. Please call 406-771-4414 or 800-446-2698 to make an appointment.

### HEALTH INSURANCE

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 Academic Resources.

### 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 in the Main Office and Student Services.

### LOST AND FOUND

Lost and Found items should be reported and taken to the Maintenance Department in Room number G62. The phone number is 771-4369.

### 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.

### 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.

### 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 register their vehicle with Student Services as well as maintain a handicapped parking decal. The roadway around the facility is a fire lane, and no parking is allowed along the roadway.

### POSTED ANNOUNCEMENTS

A student bulletin board is located in the Student Commons. Students must take responsibility for the posting and removal of their announcements. All items must be dated on the front, or they will be removed. Date stamps are provided at the Information desk in the front office.

### PUBLICATION & DISTRIBUTION

Prior to distribution in the College or on the College's property, all publications shall be reviewed by the Dean of the College for approval. The Dean, or designee, may stop distribution of publications which are obscene, which infringe on the rights of others, or which are likely to cause substantial disruption of the College's activities. The Dean will provide guidance regarding restrictions that may apply to distribution.

### RELIGION

It is the responsibility of the College not to interfere with religious freedom. Students have the right to practice their own religious beliefs as long as they do not violate the constitutional rights of others.

# STUDENT INFORMATION

## SAFETY

Unsafe conditions on the Campus should be reported immediately to faculty, staff, or the Main Office. 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 West side of the building for disposal of cigarettes in lieu of disposing of them on the Campus grounds.

## SNACK BAR AND CAFETERIA

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

## 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 a committee of AS MSU-GF COT Senators. All resources are obtained through donations. Students must go through an application process to receive assistance.

## STUDENT IDENTIFICATION CARD

Each student may obtain a nontransferable identification card. The identification card may be necessary when purchasing books, cashing checks in the bookstore and using the library. Lost identification cards may be replaced by purchasing them through the business office for \$5.

## TELEPHONES

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



**"There is not any memory with less satisfaction than the memory of some temptation we resisted." - James Branch Cabell (1879-1958), American writer**

## Programs of Study



**Arts & Sciences**  
**Business & Technology**  
**Health Sciences**

# PROGRAMS OF STUDY

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This section is designed to help students determine which classes they will need to complete in order to meet their educational goals.

The curricula emphasize particular academic or technical areas and are recommended to students planning careers and/or further college work in those areas.

The section contains:

- A list of all programs of study and transfer courses offered at Montana State University- Great Falls College of Technology;
- Requirements for the Associate of Applied Science Degree, Associate of Science Degree, Associate of Arts Degree and the Montana University System Core



# Arts & Sciences



## **Montana University System Core**

### **Associate of Arts Degree**

### **Associate of Science Degree**

- General Education Core
- With Business Education Concentration
- With Education Concentration

### **Course Recommendations**

- MSU Bozeman Pre-Nursing Curriculum

# ARTS & SCIENCES

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## ARTS & SCIENCES ADVISORS

FREDERICK BRIDGER  
JANA CARTER  
STEPHEN FORREST  
COLLEEN HAZEN  
GRAYCE HOLZEIMER  
REBECCA JOHNSON  
JILL KEIL  
CHERIE MCKEEVER  
DEBORAH MOREY  
MICHAEL O'LEAR  
HEIDI PASEK  
ROGER PEFFER  
MARK PLANTE  
LARRY VACCARO  
ADAM WENZ

Studies within the Arts & Sciences Department include most general core areas. Courses consist of English, Mathematics, General Science, Communications, Social Science, Humanities, Fine Arts, and Diversity Issues.

The above academic advisors are available to assist students in selecting courses to fulfill the Montana University System Core, A.S. and A.A. General Programs.

For students who plan to transfer to a four-year institution after attending Montana State University--Great Falls College of Technology, it is important that they consult with the receiving institution regarding its general graduation requirements.



# ARTS & SCIENCES

## MONTANA UNIVERSITY SYSTEM CORE

Montana State University - Great Falls College of Technology's General Education Core reflects that of Montana State University-Bozeman. In order for this curriculum to be transferable to units of the Montana University System, students are required to complete 31 credit hours of course work distributed across the following General Education Core categories. A grade of "C" or above in each course is required to satisfy core requirements. 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's office to have this certification indicated on your transcript.

### SEMINAR AND COMMUNICATIONS--3 CREDITS

Course	No.	Title	Credits
COMM	130(US)	Public Speaking	3
COMM	135(US)	Interpersonal Communications	3
ENGL	101(US)	Freshman Seminar	3

### WRITING--3 CREDITS

Course	No.	Title	Credits
ENGL	121(W)**	Composition I	3
ENGL	122(W)**	Composition II	3

### QUANTITATIVE REASONING--3 CREDITS

Course	No.	Title	Credits
MATH	121(Q)**	Math For Elem Teachers II	3
MATH	130(Q)**	College Algebra	4
MATH	131(Q)**	College Trigonometry	3
MATH	150(Q)**	Math for Liberal Arts	3
MATH	161(Q)**	Math for Health Science	4
MATH	181(Q)**	Calculus I	4
MATH	182(Q)**	Calculus II	4
MATH	216(Q)**	Basic Statistics	3
MATH	217(Q)**	Intermediate Statistics	3

### INQUIRY ARTS--3 CREDITS

Course	No.	Title	Credits
ART	101(IA)	Intro to Visual Arts	3
ART	114(IA)	Art Fundamentals	3
ART	140(IA)	Drawing I	3
DE	161(IA)	Introduction to Design	3
DE	164(IA)	Historic Interiors	3
ENGL	217(IA)	Creative Writing	3
MUS	102(IA)	Fundamentals of Music	3
MUS	210(IA)	Music Appreciation	3
MUS	212(IA)	American Music	3
MUS	214(IA)	World Music	3

### INQUIRY HUMANITIES--3 CREDITS

Course	No.	Title	Credits
ENGL	114(IH)	Intro to Literature	3
ENGL	210(IH)	World Literature I	3
ENGL	211(IH)	World Literature II	3
HUM	242(RH)	Gender & Equality	3
PHIL	132(IH)	Problems in 20th Cent Thinking	3
PHIL	232(IH)	Basic Ethics	3
PHIL	238(IH)	Medical Ethics	3

### NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
AH	221(CS)	Human Nutrition	3
BIO	103(IN)	Biology of Organisms (w/Lab)	4
BIO	107(IN)	Fund of Human Biology/Lab	4
BIO	108(IN)	Fund of Human Bio for non-clinical majors	4
BIO	205(CS)	Personal Nutrition	3
BIO	255(CS)	Principles of Genetics	3
CHM	150(IN)*	Prin of Inorganic Chemistry	3
CHM	151(IN)*	Prin of Inorganic Chem Lab	1
PHYS	110(IN)	Survey of Natural Sciences	4
PHYS	130(IN)	Fund Physical Science with Lab	4

### INQUIRY SOCIAL SCIENCES--3 CREDITS

Course	No.	Title	Credits
ECON	101(IS)	Principles of Economics	3
ECON	102(IS)	Economics I (Macro)	3
ECON	201(IS)	Economics II (Micro)	3
PSY	101(IS)	General Psychology	3
PSY	109(IS)	Lifespan Development	3
SOC	111(IS)	Introduction to Sociology	3
POLS	206(IS)	U.S. Government	3

### DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ENGL	214(D)	Literature of the West	3
HUM	244(D)	American Cultural Values	3
ML	100(D)	Intro to American Sign Lang	3
ML	102(D)*	Elementary Spanish II	4
ML	219(D)*	Intermediate Spanish	3
ML	220(D)*	Spanish Language & Culture	3
ANT	101(D)	Intro to Anthropology	3
BUS	249(D)	Global Marketing	3
SOC	246(D)	Montana's American Indians	3
GEOG	105(D)	General Geography	3

### HISTORY--3 CREDITS

Course	No.	Title	Credits
HIST	103(HI)	U.S. History I	3
HIST	104(HI)	U.S. History II	3
HIST	106(HI)	History of Western Civ I	3
HIST	107(HI)	History of Western Civ II	3
HIST	210(HI)	Montana History	3
HIST	274(HI)	History of China	3
HIST	284(HI)	History of the Middle East	3
HIST	170(HI)	History of the Western US	3

TOTAL CREDITS - 31

\* Indicates prerequisites needed

38 \*\* Placement in course(s) is determined by admissions assessment

# ARTS & SCIENCES

## ASSOCIATE OF ARTS DEGREE IN GENERAL EDUCATION

### REQUIREMENTS

To receive the Associate of Arts degree, the following requirements must be met:

- Completion of the Montana University System Core Requirements (31 semester hours), the Computer Skills/Usage requirement (3 semester hours), The Foreign Language requirement (7 semester hours) and the elective block which may include one of the three concentrated programs of study (18 semester hours).
- A grade of "C" or better in all courses applied to the degree and a final cumulative grade point average of at least 2.0.
- At least 51% of the degree earned at Montana State University—Great Falls College of Technology.

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 Inquiry Arts requirement in the Montana University System Core may not be used as part of the Elective Option.

A great advantage of the Associate of Arts Degree is its flexibility, which will allow students to complete concentrated programs of study that appear on their transcript and aid them in transfer applications or employment opportunities.

### I. MONTANA UNIVERSITY SYSTEM CORE (31 SEMESTER HOURS). SEE PAGE 38.

### II. COMPUTER SKILLS/USAGE-3 CREDITS REQUIRED\*

Course	No.	Title	Credits
CS	110	Introduction to Computers	3

\*or any CS 3 credit hour course that has CS 110 as a prerequisite

### III. FOREIGN LANGUAGE REQUIREMENT - 7 CREDITS REQUIRED

Course	No.	Title	Credits
ML	100(D)	Intro to Sign Language	3
ML	101	Elementary Spanish I	4
ML	102(D)*	Elementary Spanish II	4
ML	200(D)*	Intermediate Sign Language	3
ML	219(D)*	Intermediate Spanish	4

“Time is the coin of our lives. We must take care how we spend it.”

– Carl Sandburg

Students may choose to complete either the elective option or one of three specific programs of study. To complete the elective option, a student must complete 18 credits listed under IV below. To complete a specific program of study, a student must complete the courses listed under the specific program of study, plus an additional 3 credits from the electives list.

### IV. ELECTIVE OPTIONS -18 CREDITS REQUIRED

HHD	Health & Human Development
ART	Art
ENGL	English (ENGL 122 or above)
HIST	History
PHIL	Philosophy
ML	Modern Languages
MUS	Music

OR

### PROGRAM OF STUDY IN HISTORY

For those wishing to pursue educational or vocational careers in tourism, public history, public relations, or research related careers.

Course	No.	Title	Credits
HIST	103(HI)	History of the US I &	
HIST	104(HI)	History of the US II OR	6
HIST	106(HI)	History of Western Civ I &	
HIST	107(HI)	History of Western Civ II	6
HIST	210(HI)	Montana History	3
HIST	274(HI)	History of China	3
HIST	284(HI)	History of the Middle East	3
		Elective from elective block	3
		Subtotal	18

OR

### PROGRAM OF STUDY IN VISUAL ARTS

For those wishing to pursue educational or vocational careers in the applied or fine arts.

Course	No.	Title	Credits
ART	101(IA)	Intro to Visual Arts	3
ART	114(IA)	Art Fundamentals	3
ART	140(IA)	Drawing I	3
DE	161(IA)	Intro to Design	3
DE	164(IA)	Historic Interiors	3
		Elective from elective block	3
		Subtotal	18

OR

### PROGRAM OF STUDY IN COMMUNICATION

Course	No.	Title	Credits
ENGL	122(W)*	Composition II	3
ENGL	124*	Business and Prof Comm	3
ENGL	127	Technical Report Writing	3
COMM	130(US)	Public Speaking	3
COMM	135(US)	Interpersonal Communications	3
		Elective from elective block	3
		Subtotal	18

TOTAL PROGRAM CREDITS - 59

\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# ARTS & SCIENCES

## ASSOCIATE OF SCIENCE DEGREE IN GENERAL EDUCATION

### REQUIREMENTS

To receive the Associate of Science degree with a general program of study, the following requirements must be met:

- Completion of the Montana University System Core Requirements (31 semester hours), the Computer Skills/Usage requirement (3 semester hours), the Extended Cultural Exploration/Expression requirement (6 semester hours) and the elective block which may include one of the three concentrated programs of study (18 semester hours).
- A grade of “C” or better in all courses applied to the degree and a final cumulative grade point average of at least 2.0.
- At least 51% of the degree earned at Montana State University—Great Falls College of Technology.

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 part of the 18 credits required in the Elective Option.

A great advantage of the Associate of Science Degree is its flexibility, which will allow students to complete concentrated programs of study that appear on their transcript and aid them in transfer applications or employment opportunities.

### I. MONTANA UNIVERSITY SYSTEM CORE (31 SEMESTER HOURS). SEE PAGE 38.

### II. COMPUTER SKILLS/USAGE-3 CREDITS REQUIRED\*

Course	No.	Title	Credits
CS	110	Introduction to Computers	3

\*or any CS 3 credit hour course that has CS 110 as a prerequisite

### III. EXTENDED CULTURAL EXPLORATION/ EXPRESSION REQUIREMENT – 6 CREDITS REQUIRED

Course	No.	Title	Credits
COMM	135(US)	Interpersonal Comm	3
ENGL	122(W)*	Composition II	3
ENGL	228*	Business & Technical Comm	3
ENGL	214	Literature of the West	3
HIST	106(HI)	History of Western Civ I	3
HIST	107(HI)	History of Western Civ II	3
HUM	242(RH)	Gender & Equality	3
HUM	244(D)	American Cultural Values	3
HHD	128	Dance, Social	1
HHD	145	Fly Fishing	1
HHD	147	Golf Fundamentals	1
HHD	152	Outdoor Summer/ Early Fall Recreation & Safety Skills	1
SOC	246(D)	Montana’s American Indians	3

Students may choose to complete either the elective option or one of three specific programs of study. To complete the elective option, a student must complete 18 credits listed under IV below. To complete a specific program of study, a student must complete the courses listed under the specific program of study, plus an additional 3 credits from the electives list.

### IV. ELECTIVE OPTION –18 CREDITS REQUIRED

BIO	Biology
CHM	Chemistry
MATH**	Mathematics (MATH 121 or above)
PHYS	Physical Science
PSY/SOC	Psychology/Sociology

OR

#### PROGRAM OF STUDY IN SCIENCE

Course	No.	Title	Credits
BIO	213	Anatomy & Physiology I / Lab	4
BIO	214*	Anatomy & Physiology II / Lab	4
CHM	152*	Essentials of Organic Chem	3
CHM	153*	Essentials of Organic Chem Lab	1
PHYS	130(IN)	Fund of Physical Science / Lab	4
		Elective from elective block	3
		Subtotal	19

OR

#### PROGRAM OF STUDY IN MATH

Course	No.	Title	Credits
MATH	131(Q)**	College Trigonometry	3
MATH	181(Q)**	Calculus I	4
MATH	182(Q)**	Calculus II	4
MATH	216(Q)**	Basic Statistics	3
MATH	217(Q)**	Intermediate Statistics	3
		Elective from elective block	3
		Subtotal	20

OR

#### PROGRAM OF STUDY IN SOCIAL SCIENCE

Course	No.	Title	Credits
ECON	102(IS)	Economics I (Macro)	3
PSY	101(IS)	General Psychology	3
PSY	109(IS)	Lifespan Development	3
SOC	111(IS)	Intro to Sociology	3
SOC	246(D)	Montana’s American Indians	3
		Elective from elective block	3
		Subtotal	18

TOTAL PROGRAM CREDITS - 58

“Nothing will ever be attempted if all possible objections must first be overcome.” – Samuel Johnson

\* Indicates prerequisites needed

# ARTS & SCIENCES

## ASSOCIATE OF SCIENCE DEGREE WITH BUSINESS EDUCATION CONCENTRATION

ADVISOR: STEPHEN FORREST

### GENERAL REQUIREMENTS:

The student must achieve a cumulative GPA of 2.0 or above and a grade of "C" or better in each course to earn the Associate of Science Degree. Students who intend to apply to MSU-N for Admission to Teacher Education must have a minimum GPA average of 2.5.

### A. THE GENERAL EDUCATION COURSES - 36 CREDITS

#### COMMUNICATION—9 CREDITS (3 ORAL, 6 WRITTEN)

Course	No.	Title	Credits
COMM	130(US)	Public Speaking <b>OR</b>	3
COMM	135(US)	Interpersonal Comm	3
ENGL	121(W)**	Composition I	3
ENGL	122(W)**	Composition II	3

#### MATHEMATICS—3 CREDITS

Course	No.	Title	Credits
MATH	150(Q)**	Math for Liberal Arts	3

\*Math 130(Q) College Algebra (or higher) may be substituted

#### HUMANITIES—6 CREDITS

Course	No.	Title	Credits
ENGL	114(IH)	Intro to Literature	3
ENGL	210(IH)	World Literature I	3
ENGL	211(IH)	World Literature II	3
ML	102(D)*	Elementary Spanish II	4
MUS	214(IA)	World Music	3

#### SOCIAL SCIENCES—6 CREDITS

Course	No.	Title	Credits
ECON	201(IS)	Economics II	3
PSY	109(IS)	Lifespan Development	3

#### NATURAL SCIENCE—6 CREDITS

Must include at least one lab science.

Course	No.	Title	Credits
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See page 38 for list of classes

#### TECHNOLOGY APPLIED ART—7 CREDITS

Course	No.	Title	Credits
HDHL	106	Drug & Health Issues for Ed	3
BUS	106	Introduction to Business	3

## B. PROGRAM OF STUDY IN BUSINESS EDUCATION -- 31 CREDITS

In addition to the General Education Core, students seeking the Associate of Science degree must complete 30 credit hours of course work preparing them for the business education profession. Those specific to the articulation with MSU-N's Business Education degree are listed below.

Course	No.	Title	Credits
ACCT	221*	Financial Accounting	3
ACCT	222*	Managerial Accounting	3
ACCT	224*	Computerized Accounting	3
AH	102	First Aid and CPR	1
BUS	255*	Legal Environment	3
CS	110	Introduction to Computers	3
CS	231*	Web Page Design	3
EDUC	215	Intro to Education Foundations	3
EDPY	215	Designing Learning Envir	3
OO	266*	Microsoft Word	3
OO	295*	Admin Office Procedures	3

\*AH 102 is not required if student is certified in first aid and CPR

TOTAL PROGRAM CREDITS - 67

**Note:** In the last semester with the College of Technology, the student should apply to MSU-N for Admission to Teacher Education.



\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# ARTS & SCIENCES

## ASSOCIATE OF SCIENCE DEGREE WITH EDUCATION CONCENTRATION

ADVISOR: STEPHEN FORREST

Students may begin pursuit of a baccalaureate degree from MSU-Northern by following the recommended plan of study included below. Students may complete an Associate of Science degree through MSU- Great Falls College of Technology or move directly into the MSU-Northern Education Department after completing the required courses and receiving admittance to the Teacher Education Program at MSU-Northern. Please consider this decision carefully as some employers under the *No Child Left Behind Act of 2001* require the two year Associate of Science Degree.

**GENERAL REQUIREMENTS:** The student must achieve a cumulative GPA of 2.0 or above and a grade of "C" or better in each course listed below to earn the Associate of Science degree. Students who intend to apply to MSUN for admission to Teacher Education must complete a total of 54 semester credits of collegiate level course work with a cumulative GPA of 2.5 or higher. These 54 credits must include the ♦ courses listed below. Only students seeking an A.S. degree from MSU – Great Falls COT need to complete the entire curriculum outlined below.

### SEMESTER 1 REQUIREMENTS

Course	No.	Title	Credits
ART	101(IA)	Intro to Visual Arts	3
COMM	130(US)	Public Speaking <b>OR</b>	
COMM	135(US)	Interpersonal Communications ♦	3
EDUC	215	Introduction to Education ♦	3
ENGL	121(W)**	Composition I ♦	3
MATH	120**	Math for Elem Teachers ♦	3
SUBTOTAL			<b>15</b>

### SEMESTER 2 REQUIREMENTS

Course	No.	Title	Credits
ENGL	122(W)*	Composition II ♦	3
MATH	121(Q)*	Math for Elem Teachers II ♦	3
EDUC	210	Educ Psych & Human Deveop ♦	3
HDHL	106	Drug & Health Issues for Educ ♦	3
PSY	109(IS)	Lifespan Development ♦	3
SUBTOTAL			<b>15</b>

### SEMESTER 3 REQUIREMENTS

Course	No.	Title	Credits
EDUC	240*	Instructional Techn (CS 245) ♦/ℓ	3
ENGL	114(IH)	Introduction to Literature	3
HIST	106(HI)	History of Western Civ I <b>OR</b>	
HIST	103(HI), HIST 104(HI), HIST 107(HI), HIST 210(HI)		3
MUS	214(IA)	World Music	3
PHYS	110(IN)	Survey of Natural Sciences	4
SOC	246S(D)	Montana's American Indians	3
SUBTOTAL			<b>19</b>

### SEMESTER 4 REQUIREMENTS

Course	No.	Title	Credits
AH	102	First Aid & CPR	1
ART	140(IA)	Drawing I	3
MUS	102	Fundamentals of Music	3
PHYS	130(IN)	Fund of Phys Science w/ Lab <b>OR</b>	
BIO	107(IN), BIO 213, BIO 280		4
SUBTOTAL			<b>11</b>

TOTAL PROGRAM CREDITS – 60

♦ Coursework needed (with a minimum of 54 semester credits) to apply for Admission into College of Education at MSU Northern.

ℓ CS 110 or challenge exam, or instructor approval required

\* Indicates prerequisites needed

42 \*\* Placement in course(s) is determined by admissions assessment

## BACHELOR OF SCIENCE DEGREE OFFERED AT MSU-NORTHERN GREAT FALLS

All students must be fully or provisionally admitted into Montana State University-Northern's Teacher Education Program before enrolling in the courses listed below. Elementary Education courses for MSU-Northern are taught in a block format and are sequential, i.e., students take Block 1, Block 2, Block 3 and finish with Block 4. All courses within the block are taught in the late afternoons/evenings.

### BLOCK 1:

Course	No.	Title	Credits
EDUC	300	Intro to Curr Plng & Prct	3
EDUC	321	Intgrng Tech into Educ	1-3
EDUC	347	Spch, Hrng, Lang Dev	<b>3R/RE</b>
EDUC	376	Assessment in Education	2
EDUC	380	Classroom Management	3
EDPY	350	Educ & Psyc of Except Chld	<b>3R/RE</b>
Selective			2
TOTAL CREDITS			<b>18</b>

### BLOCK 2:

Course	No.	Title	Credits
EDUC	306	Mthds of Tchng Elem Soc Stdy	2
EDUC	307	Mthds of Tchng Elem Math & Sci	3
EDUC	310	Mthds of Tchng Intgtd Crt Art	3
EDUC	334	Tchng Integrated Language Arts	<b>3R/RE</b>
EDUC	336	Integrated Field Experience	1-3
HPE	300	Physical Education in Elem Schl	3
TOTAL CREDITS			<b>18</b>

### BLOCK 3:

Course	No.	Title	Credits
EDUC	335	Fund & Crrtv Strtg of Elem Edu	<b>3R/RE</b>
EDUC	336	Integrated Field Experience	1-3
EDUC	440	Assessment in Remedial Rdg Prg	<b>2R</b>
EDUC	445	Tchng Rdng, Wrng, Crtcl Thnkng	<b>2R</b>
EDUC	448	Reading Materials for Elem Chld	<b>3R/RE</b>
EDUC	455	Advanced Practicum in Education	3
EDPY	425	Learning Disabilities	<b>3R</b>
Selective			2-3
TOTAL CREDITS			<b>16-18</b>

### BLOCK 4:

Course	No.	Title	Credits
EDUC	475	Elementary Teaching Practicum	12

TOTAL MINIMUM CREDITS FOR A BACHELOR OF SCIENCE DEGREE IN ELEMENTARY EDUC: 128

The courses needed to complete the Bachelor of Science Degree are offered through MSU-Northern in Great Falls. For more information, including course descriptions please see the MSU-Northern catalog.

**R** These courses are also offered during summer session; they are requirements of the Reading endorsement.

**R/RE** These classes are requirements of the Reading Endorsements and the Elementary Education Program and are also offered during the summer session.

# ARTS & SCIENCES

## MONTANA STATE UNIVERSITY-BOZEMAN PRE-NURSING CURRICULUM

Students interested in transferring to Montana State University – Bozeman’s Baccalaureate Education in Nursing program leading to RN licensure are advised to complete the following required non-nursing courses. 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. For details please contact the MSU-Bozeman College of Nursing, Great Falls Campus at 771-4450 or the main campus at 406-994-3783.

### SEMINAR AND COMMUNICATIONS--3 CREDITS

Course	No.	Title	Credits
COMM	130(US)	Public Speaking <b>OR</b>	
COMM	135(US)	Interpersonal Communications	3

### WRITING--3 CREDITS

Course	No.	Title	Credits
ENGL	121(W)**	Composition I	3

### QUANTITATIVE REASONING--3 CREDITS

Course	No.	Title	Credits
MATH	216(Q)**	Basic Statistics	3

INQUIRY ARTS--3 CREDITS (see page 38)

INQUIRY HUMANITIES--3 CREDITS (see page 38)

DIVERSITY--3 CREDITS (see page 38)

### NATURAL SCIENCE--19 CREDITS

Course	No.	Title	Credits
AH	221(CS)	Human Nutrition <b>OR</b>	
BIO	205(CS)	Personal Nutrition	3
BIO	280	Microbiology & Comm Diseases	4
BIO	214*	Anatomy & Physiology II/Lab	4
CHM	150(IN)*	Prin of Inorganic Chemistry	3
CHM	151(IN)*	Prin of Inorganic Chemistry Lab	1
CHM	152*	Essentials of Organic Chem	3
CHM	153*	Essentials of Organic Chem Lab	1

### INQUIRY SOCIAL SCIENCES--9 CREDITS

Course	No.	Title	Credits
PSY	101(IS)	General Psychology	3
PSY	109(IS)	Lifespan Development	3
SOC	111(IS)	Introduction to Sociology	3

### OTHER REQUIRED COURSE—4 CREDITS

Course	No.	Title	Credits
BIO	213	Anatomy & Physiology I/Lab	4

TOTAL CREDITS – 50

A student must complete CHM 150/151 prior to or concurrently with Anatomy & Physiology I.

“We don’t know who we are  
until we see what we can do...”  
- Martha Grimes



\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# Business & Technology



## Associate of Applied Science

- Accounting
- Business Management/ Entrepreneurship
- Computer Technology Microcomputer Support
- Computer Technology Network Support
- Computer Technology Web Development
- Computerized Office Technology Administrative Assistant
- Computerized Office Technology Attorney's Assistant
- Computerized Office Technology Medical Administrative Assistant
- Design Drafting
- Interior Design
- Medical Transcription

## Associate of Science

- With Business Concentration
- With Business Technology Concentration
- With Computer Information Systems Concentration

## Certificate

- Accounting Assistant
- Auto Body Repair & Refinishing
- Computer Assistant
- Fundamentals of Business
- Medical Transcription
- Network Architecture
- Office Support General Office Assistant
- Office Support Legal Receptionist
- Office Support Medical Receptionist

# BUSINESS & TECHNOLOGY

## ACCOUNTING

### ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: JON NITSCHKE

The Accounting Degree prepares students for general accounting occupations or future accounting study.

The Accounting Degree requires the following courses and recommends the following sequence:

#### REQUIRED SKILLS

OO	107	Keyboarding Basics or Challenge exam
OO	173	Computer Calculators

#### FIRST YEAR FALL SEMESTER

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3
COMM	135	Interpersonal Communications	3
CS	110	Introduction to Computers	3
ENGL	121**	Composition I	3
MATH	104**	Business Math	4
		Subtotal	16

#### FIRST YEAR SPRING SEMESTER

Course	No.	Title	Credits
ACCT	102*	Accounting Procedures II	3
ACCT	190*	Payroll Accounting	3
BUS	106	Introduction to Business	3
CS	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

#### SECOND YEAR FALL SEMESTER

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

#### SECOND YEAR SPRING SEMESTER

Course	No.	Title	Credits
ACCT	222*	Managerial Accounting	3
ACCT	231*	Income Tax Fundamentals	3
CS	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

TOTAL PROGRAM CREDITS – 63

## SUGGESTED ELECTIVES

Course	No.	Title	Credits
BUS	145	Fundamentals of Investing	1
BUS	249	Global Marketing	3
BUS	230*	Management	3
CS	140	Presentation Fundamentals	1
CS	229*	Web Page Construction	3
CS	231*	Web Page Design	3
CS	250*	Web Page Programming	3
CS	280*	Desktop Publishing	3
MATH	216**	Basic Statistics	3
MATH	217**	Intermediate Statistics	3

Other electives may be selected with advisor's approval.

## ACCOUNTING ASSISTANT

### CERTIFICATE

ADVISOR: JON NITSCHKE

The Accounting Assistant program is designed to prepare the student with skills to seek entry-level employment in accounts receivable, accounts payable, payroll, and general accounting.

#### REQUIRED COURSES

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3
ACCT	102*	Accounting Procedures II	3
ACCT	190*	Payroll Accounting	3
COMM	135	Interpersonal Communications	3
CS	110	Introduction to Computers	3
CS	220*	Electronic Spreadsheets	3
ENGL	121**	Composition I	3
MATH	104**	Business Mathematics	4
OO	173*	Computer Calculators	1
OO	220	Preparing Resumes <b>OR</b>	1
OO	221	Interviewing for Jobs	1
		Elective	3

TOTAL PROGRAM CREDITS – 30

#### SUGGESTED ELECTIVES

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3
CS	205*	Database Management I	3
OO	107	Keyboarding Basics	3
OO	179	Records Management	3
OO	265*	WordPerfect <b>OR</b>	3
OO	266*	Microsoft Word	3

† A grade of "C" or above required for graduation  
 \* Indicates prerequisites needed  
 \*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## AUTO BODY REPAIR AND REFINISHING

### CERTIFICATE

ADVISOR: STEVE THURSTON

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.

Montana State University—Great Falls College of Technology reserves the right to add, delete, modify, and/or substitute courses as required to meet the needs of industry and other qualifying factors.

A grade of “C” or above must be achieved in all technical courses in order to earn a certificate.

#### FALL SEMESTER

Course	No.	Title	Credits
TB	112	Auto & Paint Shop Safety	1†
TB	130	Basic Auto Construction	2†
TB	134	Correcting Sheet Metal	3†
TB	141	Surface Preparation and Under Coats	3†
TB	142	Top Coat Applic. (Lacquer)	3†
		Subtotal	12

#### SPRING SEMESTER

Course	No.	Title	Credits
TB	136*	Correcting Collision Damage	5†
TB	150*	Paint Removal	3†
TB	153*	Overall Refinishing	3†
TB	154*	Paint Problems	1†
		Subtotal	12

#### FALL SEMESTER

Course	No.	Title	Credits
TB	220	Fiberglass & Plastic Repair	3†
TB	243*	Panel Replacement	3†
TB	248*	Spot Repair and Blending	3†
TB	249	Paint Formulation and Tinting	3†
		Subtotal	12

#### SPRING SEMESTER

Course	No.	Title	Credits
TB	245*	Production Body Repair	3†
TB	246	Total Body Rebuilding and Sectioning	3†
TB	250*	Production Refinishing	3†
TB	254*	Specialty Finishes	1†
TB	255	Estimating Collision Damage	3†
		Subtotal	13

#### GENERAL EDUCATION REQUIREMENTS

Course	No.	Title	Credits
COMM	135	Interpersonal Communications	3†
ENGL	--- **	ENGL 120 or higher	3†
MATH	--- **	MATH 085 or higher	3-4†
		Electives	3
		Subtotal	12/13

#### SUGGESTED ELECTIVES

Course	No.	Title	Credits
BUS	106	Introduction to Business	3
CS	110	Introduction to Computers	3

TOTAL PROGRAM CREDITS - 61-62

TB 130 Basic Auto Construction and TB 134 Correcting Sheet Metal are also taught to high school students in the spring semester.



† A grade of “C” or above required for graduation

\* Indicates prerequisites needed

\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## BUSINESS MANAGEMENT/ ENTREPRENEURSHIP ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISORS: MARILYN BESICH  
TERRI DWYER

The Business Management/Entrepreneurship Degree is designed to prepare students for employment in management positions or to operate their own small business enterprises.

The Business Management/Entrepreneurship Degree requires satisfactory completion of the following courses, and recommends the following sequence:

### REQUIRED SKILLS

OO	107	Keyboarding Basics or Challenge exam
OO	173	Computer Calculators

### FIRST YEAR FALL SEMESTER

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3†
BUS	106	Introduction to Business	3†
COMM	135	Interpersonal Communications	3†
CS	110	Introduction to Computers	3†
ENGL	121**	Composition I	3†
		Subtotal	15

### FIRST YEAR SPRING SEMESTER

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

### SECOND YEAR FALL SEMESTER

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

### SECOND YEAR SPRING SEMESTER

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

TOTAL PROGRAM CREDITS – 65

### SUGGESTED ELECTIVES – 6 CREDITS REQUIRED

Course	No.	Title	Credits
ACCT	224*	Computerized Accounting	3
BUS	145	Fundamentals of Investing	1
BUS	249	Global Marketing	3
CS	140	Presentation Fundamentals	1
CS	205*	Database Management I	3
CS	229*	Web Page Construction	3
CS	231*	Web Page Design	3
CS	250*	Web Page Programming	3
CS	280*	Desktop Publishing	3

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

For students interested in transferring into the Bachelor of Science degree in Business Technology at MSU – Northern, please be advised that the following courses will be accepted for transfer within the Business Core at MSU – Northern.

### MSU GF-COT

#### COURSE

ACCT 221
ACCT 222
BUS 255
BUS 230
BUS 235

### MSU NORTHERN

#### EQUIVALENT COURSE

ACCT 261
ACCT 202
BUS 271
BUS 300
BUS 335



- † A grade of "C" or above required for graduation
- \* Indicates prerequisites needed
- \*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## FUNDAMENTALS OF BUSINESS CERTIFICATE

ADVISOR: MARILYN BESICH

The Fundamentals of Business program is designed for persons seeking employment in entry-level business positions assisting small business enterprises in the functioning of accounting records, meeting the public in a sales capacity, management of office functions and marketing of the business. The Fundamentals of Business program also offers individuals needing technical business assistance courses to upgrade knowledge and skills.

### REQUIRED COURSES

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3†
ACCT	102*	Accounting Procedures II	3†
BUS	106	Introduction to Business	3†
BUS	230*	Management	3†
BUS	235*	Marketing	3†
COMM	135	Interpersonal Communications	3†
CS	110	Introduction to Computers	3†
ENGL	121**	Composition I	3†
MATH	104**	Business Mathematics	4†
OO	107	Keyboarding Basics	3†
OO	173*	Computer Calculators	1†

TOTAL PROGRAM CREDITS – 32

## ASSOCIATE OF SCIENCE WITH BUSINESS TECHNOLOGY CONCENTRATION

ADVISOR: KEVIN CARLSON

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 on **Accounting/Finance; Marketing and Small Business Management** for transfer:

MONTANA UNIVERSITY SYSTEM CORE:

31 CREDITS SEE PAGE 38

### BUSINESS COURSE REQUIREMENTS

Course	No.	Title	Credits
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†
CS	110	Introduction to Computers	3†
ECON	201	Economics II (Micro)	3†
ENGL	124*	Business & Professional Comm	3†
MATH	216**	Basic Statistics	3†
MATH	217**	Intermediate Statistics	3†
Total			30

TOTAL PROGRAM CREDITS - 61

Note: Students may not use any of the Business Course Requirements to fulfill requirements in the Montana University System Core.



† A grade of "C" or above required for graduation

\* Indicates prerequisites needed

\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## ASSOCIATE OF SCIENCE DEGREE BUSINESS CONCENTRATION

Upon completion of this Associate of Science Program, students will be awarded an A.S. degree in General Education from MSU – Great Falls COT and will have the option to transfer into the College of Business at either MSU-Billings or MSU-Bozeman. Students must complete either the MSU-Billings track or the MSU-Bozeman track in order to complete the degree program.

### MSU-BILLINGS TRACK

The College of Business of MSU-Billings has a basic curriculum required for the freshman and sophomore years in **Economics, Finance, Management, and Marketing**. Completion of this track will allow students to be eligible for formal admission to the MSU-Billings College of Admissions. Students intending to apply for admission to the MSU-Billings College of Business must complete all A.S. degree requirements, have a “C” or better in all Business courses, and have a 2.25 minimum cumulative GPA.

#### REQUIRED SKILLS:

##### Completion of:

ACCT 101 – Acct Procedures I or instructor approval

ACCT 102 – Acct Procedures II or instructor approval

MATH 216 – Basic Statistics

#### PROGRAM COURSE REQUIREMENTS:

I. MONTANA UNIVERSITY SYSTEM CORE REQUIREMENTS:  
31 CREDITS (P. 38)

#### II. FIRST YEAR

Course	No.	Title	Credits
CS	110	Intro to Computers	3†
ECON	102	Economics I (Macro)	3†
ECON	201	Economics II (Micro)	3†
MATH	181**	Calculus I	4†
Total			13

#### III. SECOND YEAR

Course	No.	Title	Credits
ACCT	221*	Financial Accounting	3†
ACCT	222*	Managerial Accounting	3†
BUS	255	Legal Environment	3†
BUS	270*	Management Info. Systems	3†
ENGL	228*	Strategies of Business Comm	3†
MATH	217**	Intermediate Statistics	3†
Total			18

TOTAL PROGRAM CREDITS – 62

## MSU-BOZEMAN TRACK

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 Admissions. Students intending to apply for admission to the MSU-Bozeman College of Business must complete all A.S. degree requirements, have a “C” or better in all Business courses, and have a 2.25 minimum cumulative GPA.

#### REQUIRED SKILLS:

##### Completion of:

ACCT 101 -Acct Procedures I or instructor approval

ACCT 102 -Acct Procedures II or instructor approval

#### PROGRAM COURSE REQUIREMENTS:

I. MONTANA UNIVERSITY SYSTEM CORE REQUIREMENTS:  
31 CREDITS (P. 38)

#### II. FIRST YEAR BUSINESS CORE

##### REQUIREMENTS

Course	No.	Title	Credits
CS	110	Introduction to Computers	3†
ECON	102	Economics I (Macro)	3†
MATH	181**	Calculus I	4†
BUS	106	Introduction to Business	3†
Total			10

#### III. SECOND YEAR-BUSINESS CORE REQUIREMENTS

Course	No.	Title	Credits
ACCT	221*	Financial Accounting	3†
ACCT	222*	Managerial Accounting	3†
ENGL	127*	Technical Report Writing	2†
ENGL	124*	Business & Professional Comm	3†
ECON	201	Economics II (Micro)	3†
MATH	216**	Basic Statistics	3†
MATH	217**	Intermediate Statistics	3†
Total			20

TOTAL PROGRAM CREDITS - 61

Students may not use any courses required in section II of either track to fulfill MUS Core requirements.



- † A grade of “C” or above required for graduation
- \* Indicates prerequisites needed
- \*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## COMPUTER TECHNOLOGY MICROCOMPUTER SUPPORT ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: JEFF BROWN

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 Microcomputer Support Degree prepares students to pursue a career in the technical support of microcomputers at the hardware/software level as well as in user support and training.

Students entering the Computer Technology program are required to complete prerequisite courses with a grade of "C" or above before enrolling in the computer technology core and area of concentration required courses. See your advisor for scheduling prerequisite and required courses.

### REQUIRED SKILL:

OO 107 Keyboarding Basics  
or Challenge exam

### PREREQUISITE COURSES

Course	No.	Title	Credits
BUS	106	Introduction to Business	3†
COMM	135	Interpersonal Communications	3†
CS	111	Intro to Comp for Tech Majors	3†
MATH	104**	Business Mathematics	4†
		Subtotal	13

### TECHNICAL CORE

Course	No.	Title	Credits
CS	120*	Internet Essentials	2†
CS	166*	Computer Operating Systems	4†
CS	205*	Database Management	3†
CS	271*	PC Troubleshooting & Main II	3†
CS	275*	Computer End-User Support	3†
ENGL	121**	Composition I	3
ENGL	124*	Business & Professional Comm	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	24/25

PREREQUISITE/CORE TOTAL CREDITS – 37/38

The Microcomputer Support Degree requires satisfactory completion of the Prerequisite Courses (13 credits), the Technical Core (24/25 credits), and the following courses:

### REQUIRED COURSES

Course	No.	Title	Credits
CS	160*	Introduction to Programming	3†
CS	220*	Electronic Spreadsheets	3†
CS	229*	Web Page Construction	3†
CS	270*	PC Troubleshooting & Main I	3†
OO	265*	WordPerfect <b>OR</b>	
OO	266*	Microsoft Word	3†
		Technical Electives (see below)	9†
		Subtotal	24
		Prerequisite/Core Totals	37/38

TOTAL PROGRAM CREDITS – 61-62

### TECHNICAL ELECTIVES – CHOOSE 9 CREDITS

Course	No.	Title	Credits
BUS	200	Special Projects	VAR†
CS	126*	Networking Fundamentals	4†
CS	176*	Routers & Routing Basics	4†
CS	208*	Fundamentals of UNIX	4†
CS	211*	Network Operating Systems – Win	4†
CS	217*	Computer Graphic Design	4†
CS	226*	Switching Basics and Intermediate Routing	4†
CS	231*	Web Page Design	3†
CS	255*	Fundamentals of Network Security	3†
CS	273*	Fund of Server Man & Admin	3†
CS	276*	WAN Technologies	4†
CS	279*	Remote Access	4†
CS	280*	Desktop Publishing	3†
CS	299*	Internship	1-6†
DRFT	156	Introduction to CAD	3†
OO	220	Preparing Resumes	1†
OO	221	Interviewing for Jobs	1†

**“To break a bad habit, drop it.”**



52 † A grade of "C" or above required for graduation  
\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## COMPUTER 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.

Students entering the Computer Technology program are required to complete prerequisite courses with a grade of "C" or above before enrolling in the computer technology core and area of concentration required courses. See your advisor for scheduling prerequisite and required courses.

### REQUIRED SKILL:

OO 107 Keyboarding Basics  
or Challenge exam

### PREREQUISITE COURSES

Course No.	Title	Credits
BUS 106	Introduction to Business	3†
COMM 135	Interpersonal Communications	3†
CS 111	Intro to Comp for Tech Majors	3†
MATH 104**	Business Mathematics	4†
	Subtotal	13

### TECHNICAL CORE

Course No.	Title	Credits
CS 120*	Internet Essentials	2†
CS 166*	Computer Operating Systems	4†
CS 205*	Database Management	3†
CS 271*	PC Troubleshooting & Main II	3†
CS 275*	Computer End-User Support	3†
ENGL 121**	Composition I	3
ENGL 124*	Business & Professional Comm	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	24/25

PREREQUISITE/CORE TOTAL CREDITS – 37/38

The Network Support Degree requires satisfactory completion of the Prerequisite Courses (13 credits), the Technical Core (24/25 credits), and the following courses:

### REQUIRED COURSES

Course No.	Title	Credits
CS 226*	Switching Basics & Inter Routing	4†
CS 211*	Network Operating Systems – Win	4†
CS 270*	PC Troubleshooting & Main I	3†
CS 273*	Fund of Server Man & Admin	3†
CS 276*	WAN Technologies	4†
	Technical Electives (see below)	8†
	Subtotal	26
	Prerequisite/Core Totals	37/38

TOTAL PROGRAM CREDITS – 63-64

### TECHNICAL ELECTIVES – CHOOSE 8 CREDITS

Course No.	Title	Credits
BUS 200	Special Projects	VAR†
CS 160*	Introduction to Programming	3†
CS 208*	Fundamentals of UNIX	4†
CS 214*	Curr Topics: Netw Opr Syst	VAR†
CS 229*	Web Page Construction	3†
CS 255*	Fund Network Security	3†
CS 278*	Adv Routing	4†
CS 279*	Remote Access	4†
CS 281*	Multilayer Switching	4†
CS 282*	Network Troubleshooting	4†
CS 283*	Fund of Wireless LANs	3†
OO 220	Preparing Resumes	1†
OO 221	Interviewing for Jobs	1†
DRFT 156	Intro to CAD	3†

### *To be a successful Computer Specialist, you should:*

- Be organized
- Possess logic skills
- Understand basic computer principles and be willing to learn more complex skills as technology advances
- Enjoy challenges and solving problems
- Be able to patiently communicate complicated material in simple terms
- Be able to work well under pressure

Because computer technology changes so rapidly, operators must be adaptable and willing to learn. Analytical and technical expertise are also needed, particularly by operators who work in automated data centers, to deal with the unique or high-level problems a computer is not programmed to handle. Operators must be able to communicate well and work effectively with programmers or users, as well as with other operators. Additionally, computer operators must be able to work independently, because they may have little or no direct supervision.

- † A grade of "C" or above required for graduation
- \* Indicates prerequisites needed
- \*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## COMPUTER TECHNOLOGY WEB DEVELOPMENT 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.

Students entering the Computer Technology program are required to complete prerequisite courses with a grade of "C" or above before enrolling in the computer technology core and area of concentration required courses. See your advisor for scheduling prerequisite and required courses.

### REQUIRED SKILL:

OO 107 Keyboarding Basics  
or Challenge exam

### PREREQUISITE COURSES

Course	No.	Title	Credits
BUS	106	Introduction to Business	3†
COMM	135	Interpersonal Communications	3†
CS	111	Intro to Comp for Tech Majors	3†
MATH	104**	Business Mathematics	4†
		Subtotal	13

### TECHNICAL CORE

Course	No.	Title	Credits
CS	120*	Internet Essentials	2†
CS	166*	Computer Operating Systems	4†
CS	205*	Database Management	3†
CS	271*	PC Troubleshooting & Main II	3†
CS	275*	Computer End-User Support	3†
ENGL	121**	Composition I	3
ENGL	124*	Business & Professional Comm	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	24-35

PREREQUISITE/CORE TOTAL CREDITS - 37-38

“The best leaders...almost without exception and at every level, are master users of stories and symbols.”

- Tom Peters – Business Writer

The Web Development Degree requires satisfactory completion of the Prerequisite Courses (13 credits), the Technical Core (24/25 credits), and the following courses:

### REQUIRED COURSES

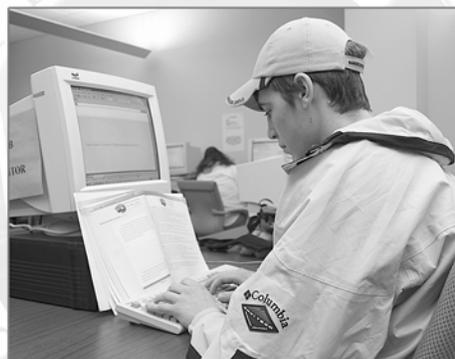
Course	No.	Title	Credits
CS	126*	Networking Fundamentals	4†
CS	160*	Introduction to Programming	3†
CS	217*	Computer Graphic Design	4†
CS	231*	Web Page Design	3†
CS	250*	Web Page Programming	3†
CS	229*	Web Page Construction	3†
		Technical Electives (see below)	5†
		Subtotal	25
		Prerequisite/Core Totals	37-38

TOTAL PROGRAM CREDITS -62-63

### TECHNICAL ELECTIVES – CHOOSE 5 CREDITS

Course	No.	Title	Credits
BUS	235*	Marketing	3†
BUS	240*	Advertising	3†
DRFT	156	Introduction to CAD	3†
CS	211*	Network Operating Systems – Win	4†
CS	280*	Desktop Publishing	3†
CS	220*	Electronic Spreadsheets	3†
CS	299*	Internship	2-6†
OO	265*	WordPerfect <b>OR</b>	
OO	266*	Microsoft Word	3†

One of the easiest ways to learn about what a webmaster does is to spend time “surfing” on the World Wide Web. By examining a variety of Web sites to see how they look and operate, you can begin to get a feel for what goes into a home page.



† A grade of “C” or above required for graduation

54 \* Indicates prerequisites needed

\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## ASSOCIATE OF SCIENCE

### COMPUTER INFORMATION SYSTEMS CONCENTRATION

ADVISOR: TIM PAUL

The Department of Computer Information Systems, MSU-Northern has recommended the following curriculum for transfer to a Bachelor of Arts degree in Computer Information Systems.

MONTANA UNIVERSITY SYSTEM CORE P. 38: 31 CREDITS ♦

#### COMPUTER INFORMATION SYSTEMS PROGRAM

REQUIREMENTS: 29 CREDITS

(15 from the Computer Information Systems Core Requirements and 14 from the Computer Information Systems Electives)

#### COMPUTER INFORMATION SYSTEMS CORE REQUIREMENTS:

15 CREDITS

Course	No.	Title	Credits
CS	111	Intro to Computers for Tech Majors	3†
CS	160*	Introduction to Programming	3†
CS	205*	Database Management	3†
CS	220*	Electronic Spreadsheets	3†
CS	229*	Web Page Construction	3†

#### COMPUTER INFORMATION SYSTEMS ELECTIVES:

14 CREDITS

Students may choose from the following courses to complete their elective requirements for the Associate of Science degree:

Course	No.	Title	Credits
CS	120*	Internet Essentials	2†
CS	126*	Networking Basics	4†
CS	166*	Computer Operating Systems	3†
CS	176*	Intro to Router Technology	4†
CS	211*	Network Operating Systems – Windows	4†
CS	226*	Switching Basics and Intermediate Routing	4†
CS	231*	Web Page Design	3†
CS	270*	PC Troubleshooting & Maint. I	3†
CS	271*	PC Troubleshooting & Maint II	3†
CS	275*	Computer End-User Support	3†
CS	276*	WAN Technologies	4†
OO	266*	Microsoft Word	3†

TOTAL PROGRAM CREDITS – 60

♦ ENGL 122 is recommended as part of the MUS core.

† A grade of “C” or above required for graduation  
\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## COMPUTER ASSISTANT

CERTIFICATE

ADVISOR: BRUCE GOTTWIG

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.

### PREREQUISITE COURSES

Course	No.	Title	Credits
CS	110	Introduction to Computers	3†

### REQUIRED COURSES

Course	No.	Title	Credits
COMM	135	Interpersonal Communications	3
CS	120*	Internet Essentials	2†
CS	229*	Web Page Construction	3†
CS	166*	Computer Operating Systems	4†
CS	205*	Database Management	3†
CS	220*	Electronic Spreadsheets	3†
CS	270*	PC Troubleshooting & Maint I	3†
ENGL	121**	Composition I	3
MATH	108**	Algebra for College Students	4
OO	265*	WordPerfect <b>OR</b>	
OO	266*	Microsoft Word	3†

TOTAL PROGRAM CREDITS – 34

## NETWORK ARCHITECTURE

CERTIFICATE

ADVISOR: BRUCE GOTTWIG

The Network Assistant program prepares individuals for operation of networking hardware and software as well as a basic knowledge of designing networks. Course work is designed to prepare students for certification as a CCNA (CISCO Certified Networking Associate) and to develop essential business and computer skills.

### PREREQUISITE COURSES

Course	No.	Title	Credits
CS	110	Introduction to Computers	3†

### REQUIRED COURSES

Course	No.	Title	Credits
COMM	135	Interpersonal Communications	3
CS	126*	Networking Basics	4†
CS	166*	Computer Operating Systems	4†
CS	176*	Intro to Router Technology	4†
CS	226*	Switching Basics and Intermediate Routing	4†
CS	276*	WAN Technologies	4†
ENGL	121**	Composition I	3†
MATH	108**	Algebra for College Students	4

TOTAL PROGRAM CREDITS – 33



† A grade of "C" or above required for graduation

\* Indicates prerequisites needed

\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## COMPUTERIZED OFFICE TECHNOLOGY ADMINISTRATIVE ASSISTANT ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: DONNA EAKMAN

The Office Technology program is designed to prepare students for a variety of duties within an office. This program emphasizes in-depth training in a wide variety of office skills, oral and written communications, transcription, computer technology, telephone and mail, office management, records management and keyboarding.

The Administrative Assistant emphasizes training for the performance of advanced office duties involving decision-making responsibilities relating to work methods and procedures. Students who complete the program requirements should possess excellent written and oral communication skills and sufficient organizational abilities to supervise the completion of assigned jobs within deadlines and with accurate attention to detail. In-depth training in computer programs is required.

### REQUIRED SKILL:

OO 107 Keyboarding Basics  
or Challenge exam

### OFFICE TECHNOLOGY CORE

Course No.	Title	Credits
ACCT 101	Accounting Procedures I	3†
COMM 135	Interpersonal Communications	3†
CS 110	Introduction to Computers	3†
CS 120*	Internet Essentials	2†
CS 140*	Presentation Fundamentals	1†
ENGL 121**	Composition I	3†
ENGL 124*	Business & Professional Comm	3†
MATH 104**	Business Mathematics	4†
OO 108*	Advanced Keyboarding	3†
OO 173*	Computer Calculators	1†
OO 179	Records Management	3†
OO 220	Resumes	1†
OO 221	Interviewing for Jobs	1†
OO 260*	Machine Transcription	3†
OO 265*	WordPerfect	3†
OO 266*	Microsoft Word	3†
OO 295*	Admin Office Procedures	3†
	Total	43

TOTAL PREREQUISITES/CORE - 43

The Administrative Assistant Option requires satisfactory completion of the Office Technology Core (43 credits) and the following courses:

### REQUIRED COURSES

Course No.	Title	Credits
BUS 106	Intro to Business <b>OR</b>	3†
OO 180	Legal Studies I	4†
BUS 255*	Legal Environment	3†
CS 205*	Database Management I	3†
CS 220*	Electronic Spreadsheets	3†
CS 280*	Desktop Publishing	3†
	Elective	3†
	Subtotal	18/19
	Core Totals	43

TOTAL PROGRAM CREDITS - 61-62

### SUGGESTED ELECTIVES

Course No.	Title	Credits
ACCT 102*	Accounting Procedures II	3
AH 185	Basic Medical Terminology	3
BUS 200	Special Projects	VAR
BUS 230*	Management	3
COMM 130	Public Speaking	3
CS 166*	Computer Operating Systems	4
CS 270*	PC Troubleshooting	3
ENGL 122*	Composition II	3
OO 181*	Legal Studies II	4



† A grade of "C" or above required for graduation  
\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

COMPUTERIZED OFFICE TECHNOLOGY  
ATTORNEY'S ASSISTANT  
ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: DONNA EAKMAN

The Office Technology program is designed to prepare students for a variety of duties within an office. This program emphasizes in-depth training in a wide variety of office skills, oral and written communications, transcription, computer technology, telephone and mail, office management, records management and keyboarding.

The Attorney's Assistant emphasizes the ethical responsibilities, terminology, and legal procedures of a law office as well as the production of accurate legal documents. Students who complete this option will be qualified to take the Accredited Legal Secretary (ALS) examination (examination and certification provided by the National Association of Legal Secretaries).

REQUIRED SKILL:

OO 107 Keyboarding Basics  
or Challenge exam

OFFICE TECHNOLOGY CORE

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3†
COMM	135	Interpersonal Communications	3†
CS	110	Introduction to Computers	3†
CS	120*	Internet Essentials	2†
CS	140*	Presentation Fundamentals	1†
ENGL	121**	Composition I	3†
ENGL	124*	Business & Professional Comm	3†
MATH	104**	Business Mathematics	4†
OO	108*	Advanced Keyboarding	3†
OO	173*	Computer Calculators	1†
OO	179	Records Management	3†
OO	220	Resumes	1†
OO	221	Interviewing for Jobs	1†
OO	260*	Machine Transcription	3†
OO	265*	WordPerfect	3†
OO	266*	Microsoft Word	3†
OO	295*	Admin Office Procedures	3†
		Total	43

TOTAL PREREQUISITES/CORE - 43

“The two hardest things to handle in life are failure and success.”

The Attorney's Assistant Option requires satisfactory completion of the Office Technology Core (43 credits) and the following courses:

REQUIRED COURSES

Course	No.	Title	Credits
BUS	255*	Legal Environment	3†
OO	180	Legal Studies I	4†
OO	181*	Legal Studies II	4†
OO	287*	Legal Transcription	4†
		Elective	3†
		Subtotal	18
		Core Totals	43

TOTAL PROGRAM CREDITS - 61

SUGGESTED ELECTIVES

Course	No.	Title	Credits
ACCT	102*	Accounting Procedures II	3
AH	185	Basic Medical Terminology	3
BUS	200	Special Projects	VAR
COMM	130	Public Speaking	3
CS	166*	Computer Operating Systems	4
CS	205*	Database Management I	3
CS	220*	Electronic Spreadsheets	3
CS	270*	PC Troubleshooting	3
CS	280*	Desktop Publishing	3
ENGL	122*	Composition II	3



58 † A grade of "C" or above required for graduation  
\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## COMPUTERIZED OFFICE TECHNOLOGY MEDICAL ADMINISTRATIVE ASSISTANT ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: DEBORAH NEWTON

The Office Technology program is designed to prepare students for a variety of duties within an office. This program emphasizes in-depth training in a wide variety of office skills, oral and written communications, transcription, computer technology, telephone and mail, office management, records management and keyboarding.

The Medical Administrative Assistant emphasizes appropriate medical office procedures, terminology, and legal and ethical responsibilities in the medical profession.

### REQUIRED SKILL:

OO 107 Keyboarding Basics  
or Challenge exam

### OFFICE TECHNOLOGY CORE

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3†
COMM	135	Interpersonal Communications	3†
CS	110	Introduction to Computers	3†
CS	120*	Internet Essentials	2†
CS	140*	Presentation Fundamentals	1†
ENGL	121**	Composition I	3†
ENGL	124*	Business & Professional Comm	3†
MATH	104**	Business Mathematics	4†
OO	108*	Advanced Keyboarding	3†
OO	173*	Computer Calculators	1†
OO	179	Records Management	3†
OO	220	Resumes	1†
OO	221	Interviewing for Jobs	1†
OO	260*	Machine Transcription	3†
OO	265*	WordPerfect	3†
OO	266*	Microsoft Word	3†
OO	295*	Admin Office Procedures	3†
Total			43

TOTAL PREREQUISITES/CORE - 43

The Medical Administrative Assistant Option requires satisfactory completion of the Office Technology Core (43 credits) and the following courses:

### REQUIRED COURSES

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3†
AH	201*	Medical Science	3†
BIO	108	Human Biology	4†
		for non-clinical majors	
HI	237*	CPT Coding	3†
HI	236*	ICD Coding	3†
OO	111*	Fund of Health Insurance	4†
OO	255*	Medical Transcription I	3†
Subtotal			23
Core Totals			43

TOTAL PROGRAM CREDITS - 66

### SUGGESTED ELECTIVES

Course	No.	Title	Credits
ACCT	102*	Accounting Procedures II	3
BUS	200	Special Projects	VAR
BUS	255	Legal Environment	3
COMM	130	Public Speaking	3
OO	256*	Medical Transcription II	3
PSY	101	General Psychology	3

**“Great Minds discuss ideas,  
average minds discuss events,  
small minds discuss people.”**

- Admiral Hyman Rickover  
(1900-1986) U.S. Navy



- † A grade of “C” or above required for graduation
- \* Indicates prerequisites needed
- \*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## OFFICE SUPPORT GENERAL OFFICE ASSISTANT CERTIFICATE

ADVISOR: DONNA EAKMAN

Office support personnel must be able to perform a variety of entry-level clerical tasks necessary for efficient functioning of the office including telephoning, information processing, calculating, managing records, scheduling appointments, processing correspondence, and handling mail. Good human relations skills are essential.

The General Office Assistant emphasizes clerical tasks including bookkeeping, transcribing, editing, proofreading, and interacting with customers.

### REQUIRED SKILLS

OO	107	Keyboarding Basics or Challenge exam
ENGL	120**	Introduction to Composition or Equivalent admission assessment score

### OFFICE SUPPORT CORE

Course	No.	Title	Credits
COMM	135	Interpersonal Communications	3†
CS	110	Introduction to Computers	3†
MATH	104**	Business Math	4†
OO	108*	Advanced Keyboarding	3†
OO	173*	Computer Calculators	1†
OO	179	Records Management	3†
OO	265*	WordPerfect <b>OR</b>	
OO	266*	Microsoft Word	3†
OO	220	Resumes	1†
OO	221	Interviewing for Jobs	1†
OO	295*	Admin Office Procedures	3†
		Total	25

CORE TOTAL CREDITS – 25

The General Office Assistant Option requires satisfactory completion of the Office Support Core (25 credits) listed on this page and the following courses:

### REQUIRED COURSES

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3
OO	260*	Machine Transcription	3
		Subtotal	6
		Office Support Core Totals	25

TOTAL PROGRAM CREDITS – 31

## OFFICE SUPPORT LEGAL RECEPTIONIST CERTIFICATE

ADVISOR: DONNA EAKMAN

Office support personnel must be able to perform a variety of entry-level clerical tasks necessary for efficient functioning of the office including telephoning, information processing, calculating, managing records, scheduling appointments, processing correspondence, and handling mail. Good human relations skills are essential.

The Legal Receptionist emphasizes basic legal office procedures and terminology as well as transcribing, editing, and proofreading.

### REQUIRED SKILLS

OO	107	Keyboarding Basics or Challenge exam
ENGL	120**	Introduction to Composition or Equivalent admission assessment score

### OFFICE SUPPORT CORE

Course	No.	Title	Credits
COMM	135	Interpersonal Communications	3†
CS	110	Introduction to Computers	3†
MATH	104**	Business Math	4†
OO	108*	Advanced Keyboarding	3†
OO	173*	Computer Calculators	1†
OO	179	Records Management	3†
OO	265*	WordPerfect <b>OR</b>	
OO	266*	Microsoft Word	3†
OO	220	Resumes	1†
OO	221	Interviewing for Jobs	1†
OO	295*	Admin Office Procedures	3†
		Total	25

CORE TOTAL CREDITS – 25

The Legal Receptionist Option requires satisfactory completion of the Office Support Core (25 credits) listed on this page, and the following courses:

### REQUIRED COURSES

Course	No.	Title	Credits
OO	180	Legal Studies I	4
OO	260*	Machine Transcription	3
		Subtotal	7
		Office Support Core Totals	25

TOTAL PROGRAM CREDITS – 32

† A grade of “C” or above required for graduation

\* Indicates prerequisites needed

\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## OFFICE SUPPORT MEDICAL RECEPTIONIST CERTIFICATE

ADVISOR: DEBORAH NEWTON

Office support personnel must be able to perform a variety of entry-level clerical tasks necessary for efficient functioning of the office including telephoning, information processing, calculating, managing records, scheduling appointments, processing correspondence, and handling mail. Good human relations skills are essential.

The Medical Receptionist emphasizes familiarity with medical office procedures and terminology.

### REQUIRED SKILLS

OO	107	Keyboarding Basics or Challenge exam
ENGL	120**	Introduction to Composition or Equivalent admission assessment score

### OFFICE SUPPORT CORE

Course	No.	Title	Credits
COMM	135	Interpersonal Communications	3
CS	110	Introduction to Computers	3
MATH	104**	Business Math	4
OO	108*	Advanced Keyboarding	3
OO	173*	Computer Calculators	1
OO	179	Records Management	3
OO	265*	WordPerfect <b>OR</b>	
OO	266*	Microsoft Word	3
OO	220	Resumes	1
OO	221	Interviewing for Jobs	1
OO	295*	Admin Office Procedures	3
		Total	25

CORE TOTAL CREDITS – 25

The Medical Receptionist Option requires satisfactory completion of the Office Support Core (25 credits) listed on this page and the following courses:

### REQUIRED COURSES

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3†
OO	111*	Fund of Health Insurance	4†
		Subtotal	7
		Office Support Core Totals	25

TOTAL PROGRAM CREDITS – 32

## DESIGN DRAFTING TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE

ADVISOR: KIRK MATTINGLY

The Design Drafting Technology program emphasizes computer-aided design using current design software. Students acquire the skills necessary for entry-level drafting jobs in the design/drafting industry and the lower-level course work for a Bachelor of Science degree in Design Drafting Technology from MSU—Northern.

### REQUIRED COURSES

#### FALL SEMESTER

Course	No.	Title	Credits
CET	173	Arch Constr & Materials	3
COMM	130	Public Speaking <b>OR</b>	
COMM	135	Interpersonal Comm.	3
CS	110	Intro to Computers	3
DRFT	131	Technical Graphics I	4
MATH	130**	Precalculus Algebra	4
		Subtotal	17

#### SPRING SEMESTER

Course	No.	Title	Credits
CS	---	Computer Science Elective	3♦
DRFT	132*	Descriptive Geometry	3
DRFT	156	Introduction to CAD	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
MFGT	205	Manufacturing Processes	3
PHYS	130	Fund of Physical Science	4
		Subtotal	16

#### SPRING SEMESTER

Course	No.	Title	Credits
CS	205*	Database Management I	3
DRFT	---	Drafting Elective	3
DRFT	205*	Machine Drafting	3
DRFT	244*	Topographical Mapping & GIS Applications	3
CS	---	Computer Science Elective <b>OR</b>	
DRFT	---	Drafting Electives	5-6*
		Total	17/18

♦Computer Science Electives must be pre-approved by advisor.

TOTAL PROGRAM CREDITS – 65/66

† A grade of “C” or above required for graduation  
\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## INTERIOR DESIGN

ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: JULIE MEYERS

The Interior Design program has been developed to prepare students with a wide variety of skills for entry into the field. Combining courses in drafting, history, materials, color as well as elements and principles of design and composition encourage students to link theory and practice. Through a problem-solving approach, students will develop individual portfolios.

### REQUIRED SKILLS

OO 107 Keyboarding Basics  
or Challenge exam

### GENERAL EDUCATION REQUIREMENTS

Course	No.	Title	Credits
COMM	135	Interpersonal Communications	3
CS	110	Introduction to Computers	3
ENGL	121**	English Composition I	3
MATH	104**	Business Mathematics	4
		Electives	6
		Subtotal	19

### DESIGN CORE

#### 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†
		Subtotal	15

#### 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†
		Subtotal	15

#### FALL SEMESTER

Course	No.	Title	Credits
BUS	220	Sales	3†
DE	261*	Field Study	3†
DE	262*	Studio I	4†
DE	267*	Architectural CAD	3†
		Subtotal	13

#### SPRING SEMESTER

Course	No.	Title	Credits
DE	263*	Studio II	4†
DE	265*	Professional Practices	3†
		Subtotal	7

TOTAL PROGRAM CREDITS - 69

### SUGGESTED ELECTIVES (6 CREDITS REQUIRED)

Course	No.	Title	Credits
BUS	106	Introduction to Business	3
BUS	230*	Management	3
BUS	240*	Advertising	3
BUS	260*	Entrepreneurship	3
ENGL	124*	Business & Professional Comm	3
DRFT	256*	3-D CAD	3
DE	270*	Kitchen and Bath I	3



† A grade of "C" or above required for graduation

62 \* Indicates prerequisites needed

\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## MEDICAL TRANSCRIPTION ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: DEBORAH NEWTON

The Medical Transcriptionist produces a variety of vital medical documents used to communicate and preserve information of medical, scientific and legal value in health-related facilities. Duties may include maintaining medical records and performing other medical office procedures. Medical Transcriptionists must be cognizant of the ethical and legal standards involved in working with confidential medical information. They must be familiar with all components of the medical record, and they must demonstrate in-depth knowledge of the medical language and the human body.

### PREREQUISITE SKILL:

OO 107 Keyboarding Basics  
or Challenge exam

### FALL SEMESTER

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3†
COMM	135	Interpersonal Communications	3†
CS	110	Introduction to Computers	3†
ENGL	121**	Composition I	3†
MATH	103**	Introduction to Algebra <b>OR</b>	
MATH	104**	Business Mathematics	4†
Subtotal			16

### SPRING SEMESTER

Course	No.	Title	Credits
BIO	213	Anatomy & Physiology I/Lab	4†
ENGL	124*	Business & Prof Comm	3
HI	156*	Legal & Regulatory Aspects of Healthcare	2†
OO	108*	Advanced Keyboarding	3†
OO	265*	WordPerfect	3†
			15

### FALL SEMESTER

Course	No.	Title	Credits
AH	194	Basic Pharmaceuticals	1†
BIO	214*	Anatomy & Physiology II /Lab	4†
HI	132*	Health Information Processes	3†
OO	111*	Fund of Health Insurance	4†
OO	255*	Medical Transcription I	3†
OO	266*	Microsoft Word	3†
			18

### SPRING SEMESTER

Course	No.	Title	Credits
AH	201*	Medical Science	3†
CS	120*	Internet Essentials	2
OO	220	Preparing Resumes <b>OR</b>	
OO	221	Interviewing for Jobs	1
OO	256*	Medical Transcription II	3†
OO	295*	Admin Office Procedures	3†
Elective			3
			15

TOTAL PROGRAM CREDITS - 64

### SUGGESTED ELECTIVES

Course	No.	Title	Credits
AH	125	Fund of Forensic Science	2
BUS	200	Transcription Internship	VAR
AH	115	Health Care Personnel and Supervision	2
HI	237*	CPT Coding	3
PHIL	238	Medical Ethics	3



† A grade of "C" or above required for graduation  
\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# BUSINESS & TECHNOLOGY

## MEDICAL TRANSCRIPTION CERTIFICATE

ADVISOR: DEBORAH NEWTON

The Medical Transcriptionist produces a variety of vital medical documents used to communicate and preserve information of medical, scientific, and legal value in health-related facilities. Medical Transcriptionists must be cognizant of the ethical and legal standards involved in working with confidential medical information. They must be familiar with all components of the medical record, and they must demonstrate in-depth knowledge of the medical language and the human body. The online certificate program is designed to train entry-level medical transcriptionists to work in a variety of specialty areas.

### PREREQUISITE SKILL:

OO 107 Keyboarding Basics  
or Challenge exam

### FALL SEMESTER

Course No.	Title	Credits
AH 185	Basic Medical Terminology	3†
BIO 108	Fund of Human Biology for non-clinical majors	4†
CS 110	Introduction to Computers	3†
MATH 103**	Introduction to Algebra <b>OR</b>	
MATH 104**	Business Mathematics	4†
PSY 101	General Psychology	3†
		17

### SPRING SEMESTER

Course No.	Title	Credits
AH 201*	Medical Science	3†
ENGL 121**	English Composition	3†
HI 156*	Legal & Reg Aspects of HC	2†
OO 255*	Med Transcription I	3†
OO 266*	Microsoft Word	3†
		14

### SUMMER SEMESTER

Course No.	Title	Credits
OO 256*	Med Transcription II	3†

TOTAL CREDITS – 34

### SUGGESTED ELECTIVES

Course No.	Title	Credits
BUS 200	Transcription Internship	VAR
HI 132*	Health Information Processes	3
OO 265*	WordPerfect	3
PHIL 238	Medical Ethics	3

### *Transition to the Associate's 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 two-year associate degree in Medical Transcription provides that opportunity.

All courses from the certificate program transfer into the two-year program. Students who continue into the two-year associate degree program in Medical Transcription must take two semesters of Anatomy and Physiology. These courses build on the information studied in Fundamentals of Human Biology and provide the student with a deeper understanding of human body structures and functions. In addition, students in the two-year 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.



† A grade of "C" or above required for graduation

\* Indicates prerequisites needed

\*\* Placement in course(s) is determined by admissions assessment

# Health Sciences



## Associate of Applied Science

- Bioscience Technology  
Animal Laboratory Technician
- Bioscience Technology  
Instrumentation Technician
- Bioscience Technology  
Research Laboratory Technician
- Dental Hygiene
- Emergency Service EMT - Paramedic
- Emergency Services Fire & Rescue  
Technology
- Health Information Technology
- Medical Assistant
- Physical Therapist Assistant
- Practical Nurse
- Respiratory Care

## Certificate

- Dental Assistant
- EMT-Paramedic
- Health Information  
Coding Specialist
- Medical Billing Specialist
- Surgical Technology

# HEALTH SCIENCES

**BIOSCIENCE TECHNOLOGY**  
**ANIMAL LABORATORY TECHNICIAN**  
**ASSOCIATE OF APPLIED SCIENCE DEGREE**

ADVISOR: CHRISTINE KOWALSKI

**NOTE: Continuation of this program is contingent upon sufficient number of students applying for admission after completing the prerequisite courses.**

Bioscience technicians use the principles and theories of science and mathematics to assist researchers and scientists to solve problems in research and development. Their jobs are more practically oriented than those of the researcher or scientist. Graduates who complete one of the concentrations in the Bioscience Technology program are expected to perform work duties such as the following:

Animal Laboratory Technicians provide appropriate care of experimental animals in a manner compatible with humane concerns and the advancement of scientific knowledge. Duties include mixing and dispensing special diets, specimen collection, pre- and post-operative care, record maintenance, mixing and dispensing medications and treatments, fulfilling special housing requirements, or assisting with restraint and handling procedures.

A grade of "C" or above is required in each didactic course in order to progress through the program and fulfill all graduation requirements. Externships are also incorporated into the curriculum design. These courses require a "B" or above to fulfill graduation requirements. Externships involve a full-time 6-week affiliation within the bioscience technology community. Sites for externships are located throughout the state of Montana, and the student will incur the additional travel/living expenses for externship sites not located in the immediate vicinity.

In order to give flexibility to this program's curriculum, courses may be modified from time to time to accommodate the changing nature of technology and its innovations.

**PRE-BIOSCIENCE TECHNOLOGY REQUIRED COURSES**

A background in science is essential to success in the Bioscience Technology Program. To be admitted to the program, all applicants must have completed high school chemistry, physics, and biology with a grade of "B" or higher or the equivalent college courses with a grade of "C" or higher.

Students without a science background are required to complete BIO 107 and PHYS 130 with a grade of "C" or higher prior to admission into the program.

In addition, applicants must complete the following courses with a grade of "C" or above in each course prior to applying for acceptance into the program.

**PREREQUISITE COURSES**

Course No.	Title	Credits
BIO 213	Anatomy & Physiology I/Lab	4
BST 105*	Electronics Essentials	3
CHM 150*	Prin of Inorganic Chemistry	3
CHM 151*	Prin of Inorganic Chemistry Lab	1
ENGL 121**	Composition I	3
MATH 108**	Algebra for College Students	4

**Required Courses After Formal Acceptance**

**SPRING SEMESTER**

Course No.	Title	Credits
BIO 280*	Microbiology	4
BIO 214*	Anatomy & Physiology II /Lab	4
CHM 152*	Essentials of Organic Chem	3
CHM 153*	Essentials of Organic Chem Lab	1
CS 110	Introduction to Computers	<u>3</u>
	Subtotal	15

**SUMMER TERM**

Course No.	Title	Credits
BUS 106	Introduction to Business	3
COMM 135	Interpersonal Communications	3
MATH 216**	Basic Statistics	<u>3</u>
	Subtotal	9

**FALL SEMESTER**

Course No.	Title	Credits
BST 120	Intro to Lab Animal Science	3
BST 140*	Hazardous Material Handling/ Governmental Regulations	3
BST 220*	Principles of Inheritance	3
BST 222*	Methods in Bioscience Tech I	3
PSY 101	General Psychology	<u>3</u>
	Subtotal	15

**SPRING SEMESTER**

Course No.	Title	Credits
BST 122	Lab Animal Technician I/II	3
BST 250*	Externship in Bioscience Tech	<u>3</u>
	Subtotal	8

**ESTIMATED TOTAL PROGRAM CREDITS - 65**



\* Indicates prerequisites needed  
 \*\* Placement in course(s) is determined by admissions assessment

# HEALTH SCIENCES

BIOSCIENCE TECHNOLOGY  
INSTRUMENTATION TECHNICIAN  
ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: CHRISTINE KOWALSKI

**NOTE: Continuation of this program is contingent upon sufficient number of students applying for admission after completing the prerequisite courses.**

Bioscience technicians use the principles and theories of science and mathematics to assist researchers and scientists to solve problems in research and development. Their jobs are more practically oriented than those of the researcher or scientist. Graduates who complete one of the concentrations in the Bioscience Technology program are expected to perform work duties such as the following:

Instrumentation Technicians test, install, repair, calibrate, and maintain complex biomedical instruments that sense, measure, and record changes in industrial, clinical, and commercial environments. These instruments include heart-lung machines, kidney dialysis machines, infusion pumps, cardiac monitors and other devices used in medical diagnosis, monitoring, and treatment.

A grade of "C" or above is required in each didactic course in order to progress through the program and fulfill all graduation requirements. Externships are also incorporated into the curriculum design. These courses require a "B" or above to fulfill graduation requirements. Externships involve a full-time 6-week affiliation within the bioscience technology community. Sites for externships are located throughout the state of Montana, and the student will incur the additional travel/living expenses for externship sites not located in the immediate vicinity.

In order to give flexibility to this program's curriculum, courses may be modified from time to time to accommodate the changing nature of technology and its innovations.

## PRE-BIOSCIENCE TECHNOLOGY REQUIRED COURSES

A background in science is essential to success in the Bioscience Technology Program. To be admitted to the program, all applicants must have completed high school chemistry, physics, and biology with a grade of "B" or higher or the equivalent college courses with a grade of "C" or higher.

Students without a science background are required to complete BIO 107 and PHYS 130 with a grade of "C" or higher prior to admission into the program.

In addition, applicants must complete the following courses with a grade of "C" or above in each course prior to applying for acceptance into the program.

## PREREQUISITE COURSES

Course No.	Title	Credits
BIO 213	Anatomy & Physiology I/Lab	4
BST 105*	Electronics Essentials	3
CHM 150*	Prin of Inorganic Chemistry	3
CHM 151*	Prin of Inorganic Chemistry Lab	1
ENGL 121**	Composition I	3
MATH 108**	Algebra for College Students	4

## Required Courses After Formal Acceptance

### SPRING SEMESTER

Course No.	Title	Credits
BIO 214*	Anatomy & Physiology II/Lab	4
BST 110*	Electronic Instrumentation and Measurements I	4
BST 120	Intro to Lab Animal Science	3
CS 110	Introduction to Computers	3
MATH 130**	Precalculus Algebra OR	
MATH 150**	Math for Liberal Arts	3/4
Subtotal		17/18

### SUMMER TERM

Course No.	Title	Credits
BST 112*	Electronic Instrumentation and Measurements II	5
COMM 135	Interpersonal Communications	3
Subtotal		8

### FALL SEMESTER

Course No.	Title	Credits
BST 210*	Biomedical Instrumentation I	5
BST 140*	Hazardous Material Handling/ Governmental Regulations	3
CS 166*	Computer Operating Systems	4
PSY 101	General Psychology	3
Subtotal		15

### SPRING SEMESTER

Course No.	Title	Credits
BST 212*	Biomedical Instrumentation II	5
BST 250*	Externship in Bioscience Tech	TBA
Subtotal		10

ESTIMATED TOTAL PROGRAM CREDITS - 68-69



68 \* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# HEALTH SCIENCES

## BIOSCIENCE TECHNOLOGY RESEARCH LABORATORY TECHNICIAN ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: CHRISTINE KOWALSKI

**NOTE: Continuation of this program is contingent upon sufficient number of students applying for admission after completing the prerequisite courses.**

Bioscience technicians use the principles and theories of science and mathematics to assist researchers and scientists to solve problems in research and development. Their jobs are more practically oriented than those of the researcher or scientist. Graduates who complete one of the concentrations in the Bioscience Technology program are expected to perform work duties such as the following:

Research Laboratory Technicians work with biologists who study living organisms. They may assist scientists who conduct medical or genetic research or they may help conduct pharmaceutical research. They may also work with agricultural scientists in food and fiber research, production and processing. Some conduct tests and experiments to improve the yield and quality of crops or to increase the resistance of plants and animals to disease, insects or other hazards. Many work in laboratories to analyze organic substances such as blood, food and drugs; some may work in criminal investigations.

A grade of "C" or above is required in each didactic course in order to progress through the program and fulfill all graduation requirements. Externships are also incorporated into the curriculum design. These courses require a "B" or above to fulfill graduation requirements. Externships involve a full-time 6-week affiliation within the bioscience technology community. Sites for externships are located throughout the state of Montana, and the student will incur the additional travel/living expenses for externship sites not located in the immediate vicinity.

In order to give flexibility to this program's curriculum, courses may be modified from time to time to accommodate the changing nature of technology and its innovations.

### PRE-BIOSCIENCE TECHNOLOGY REQUIRED COURSES

A background in science is essential to success in the Bioscience Technology Program. To be admitted to the program, all applicants must have completed high school chemistry, physics, and biology with a grade of "B" or higher or the equivalent college courses with a grade of "C" or higher.

Students without a science background are required to complete BIO 107 and PHYS 130 with a grade of "C" or higher prior to admission into the program.

In addition, applicants must complete the following courses with a grade of "C" or above in each course prior to applying for acceptance into the program.

### PREREQUISITE COURSES

Course No.	Title	Credits
BIO 213	Anatomy & Physiology I/Lab	4
BST 105*	Electronics Essentials	3
CHM 150*	Prin of Inorganic Chemistry	3
CHM 151*	Prin of Inorganic Chemistry Lab	1
ENGL 121**	Composition I	3
MATH 108**	Algebra for College Students	4

### Required Courses After Formal Acceptance

#### SPRING SEMESTER

Course No.	Title	Credits
BIO 280*	Microbiology	4
BIO 214*	Anatomy & Physiology II/Lab	4
CHM 152*	Essentials of Organic Chem	3
CHM 153*	Essentials of Organic Chem Lab	1
MATH 130**	Precalculus Algebra <b>OR</b>	4
MATH 150**	Math for Liberal Art	3
Subtotal		15/16

#### SUMMER TERM

Course No.	Title	Credits
BUS 106	Introduction to Business	3
CS 110	Introduction to Computers	3
MATH 216**	Basic Statistics	3
Subtotal		9

#### FALL SEMESTER

Course No.	Title	Credits
BST 120	Intro to Lab Animal Science	3
BST 140*	Hazardous Material Handling/ Governmental Regulations	3
BST 220*	Principles of Inheritance	3
BST 222*	Methods in Bioscience Tech I	3
COMM 135	Interpersonal Communications	3
PSY 101	General Psychology	3
Subtotal		18

#### SPRING SEMESTER

Course No.	Title	Credits
BST 224*	Methods in Bioscience Tech II	4
BST 250*	Externship in Bioscience Tech	TBA
Subtotal		9

ESTIMATED TOTAL PROGRAM CREDITS – 69-70



\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# HEALTH SCIENCES

## DENTAL ASSISTANT CERTIFICATE

ADVISOR: CARMEN PERRY  
ROBIN WILLIAMS

Dental Assistants are important members of the dental health care team – dentist, dental assistant, dental hygienist, and dental laboratory technician. The dental assistant performs a wide variety of tasks requiring both interpersonal and technical skills that help to increase the efficiency of the dental practice. Dental assistants work clinically with the dentist delivering patient care, although at times they may also work independently or in the business aspect of the dental office.

The dental assisting profession provides a rewarding career in service to the public. It calls for individuals who are flexible, responsible, intelligent, and caring. General dentists or dental specialists employ most dental assistants, however other opportunities for employment exist in hospitals, public health settings, insurance or supply companies, and educational institutions. Because dentists often employ two or three dental assistants, employment opportunities are excellent.

The American Dental Association Council on Dental Education accredits the Dental Assistant program at MSU-Great Falls College of Technology. Upon graduation, students sit for the national certification examination administered by the Dental Assisting National Board to become Certified Dental Assistants. They are also qualified to perform expanded functions approved by the Montana Board of Dentistry. Students spend their third semester in clinical practice in extramural dental settings, must be current in CPR, obtain a Hepatitis B vaccination series, and carry student liability insurance. Students are also encouraged to become student members of the American Dental Assistants Association.

The MSU – Great Falls College of Technology Dental Assistant program is a limited enrollment program accepting up to 18 students each year. Interested students must complete prerequisite coursework prior to entry to the program and must apply to the program for acceptance. All prerequisite coursework and the dental assistant program application must be submitted (by postmark) to the program director by June 1 of each year for fall entry of the same year.

Students are urged to contact Academic Resources or the program director for student advising specific to program admission requirements.

Following acceptance to the program, the Dental Assistant program is three semesters in length concluding with a summer semester when the students are enrolled in clinical practice. All Dental Assistant program coursework must be completed with a “C” or better to continue in and/or graduate from the program. All Dental Assistant coursework must be successfully completed prior to Summer term clinical courses. Students will be required to purchase uniform attire and may be required to provide transportation to clinical sites and lodging costs depending on site location.

70 \* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

## PREREQUISITE COURSES

Course No.	Title	Credits
AH 145	Intro to Medical Terminology	1
BIO 107	Fund of Human Biology/Lab	4
COMM 135	Interpersonal Communications	3
ENGL 120**	Intro to Composition <b>OR</b>	
ENGL 121**	Composition I	3
MATH ---**	MATH 103 or higher	<u>4</u>
	Subtotal	15

## FALL SEMESTER

Course No.	Title	Credits
DA 115	Head, Neck & Oral Anatomy	3
DA 118	Dental Office Management and Computer Applications	3
DA/DH 120	Oral Radiology I	2
DA 123	Chairside I	4
DA/DH 130	Dental Materials	<u>2</u>
	Subtotal	14

## SPRING SEMESTER

Course No.	Title	Credits
DA/DH 121*	Oral Radiology II	2
DA 124*	Chairside II	4
DA 150*	Preventive Dentistry	3
DA 165*	Dental Specialties	3
DA 172*	Dental Science	<u>3</u>
	Subtotal	15

## SUMMER TERM

Course No.	Title	Credits
DA 185*	Clinical Seminar	1
DA 190*	Clinical Office Practice	<u>7</u>
	Subtotal	8

TOTAL PROGRAM CREDITS – 52



# HEALTH SCIENCES

## DENTAL HYGIENE

### ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: KIM WOLOSZYN  
MELISSA PYETTE

The Dental Hygienist is an integral member of the dental team who works together with the dentist to meet the oral health needs of each patient. The MSU-Great Falls College of Technology Dental Hygiene Program provides the knowledge and skills necessary for the dental hygienist to provide direct patient dental hygiene care.

General and specialty dentists employ most dental hygienists, but some may be employed in research, education and public health care settings such as hospitals, nursing homes, & public health clinics.

Flexible scheduling is a distinctive feature of this job. Dentists frequently hire hygienists to work only 2 or 3 days a week, so hygienists may hold jobs in more than one dental office.

Population growth and greater retention of natural teeth will stimulate the demand for dental health care professionals.

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.

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 Health Sciences Department for student advising specific to admission requirements and criteria for program acceptance.

Following acceptance into the program, the Dental Hygiene Program is two years in length with a ten week summer session between the first and second year.

Successful completion of a Radiology Challenge Exam can fulfill the requirement of the Oral Radiology I and II courses for the dental Hygiene Program. To be eligible to sit for the exam the dental hygiene student must be able to show current documentation of one of the following: Graduate of an accredited Dental Assistant Program, Montana certified in Dental Radiology, or Certified Dental Assistant.

#### PREREQUISITE COURSES

Course	No.	Title	Credits
BIO	213	Anatomy & Physiology I/Lab	4
BIO	214*	Anatomy & Physiology II/Lab	4
CHM	150*	Prin of Inorganic Chemistry	3
CHM	151*	Prin of Inorganic Chemistry Lab	1
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	<u>3-4</u>
			18/19

All prerequisite coursework and the dental hygiene application must be completed before May 31<sup>st</sup> of the year prior to entry.

#### PROGRAM COURSE REQUIREMENTS

##### FALL SEMESTER

Course	No.	Title	Credits
BIO	280*	Microbiology	4
DH	101	Intro to Dental Hyg/Preclinic	2
DH	102	Intro to Dental Hyg/Preclinic Lab	2
DH	111	Infect Control & Disease Prev	2
DH	118	Oral Anat for Hygienist	3
DH/DA	120	Oral Radiology I	<u>2</u>
Subtotal			15

##### 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	3
DH	160	Periodontology I	3
DH	165	Oral Embryology & Histology	2
DH/DA	121*	Oral Radiology II	2
DH	240	Local Anesthesia/ Nitrous Oxide Theory & Lab	<u>2</u>
Subtotal			16

##### SUMMER SEMESTER

Course	No.	Title	Credits
COMM	130	Public Speaking <b>OR</b>	
COMM	135	Interpersonal Comm	3
DH	201	Periodontology II	2
DH	210	Clinical Dent Hyg Theory II	2
DH	211	Clinical Dent Hyg Practice II	<u>3</u>
Subtotal			13

##### FALL SEMESTER

Course	No.	Title	Credits
DH	220*	Dental Nutrition	3
DH	130	Dental Materials	2
DH	215	General/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	<u>4</u>
Subtotal			15

##### 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	4
PSY	101	General Psychology <b>OR</b>	
PSY	109	Lifespan Development	3
SOC	111	Introduction to Sociology	<u>3</u>
Subtotal			15

TOTAL PROGRAM CREDITS – 92-93

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

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.

\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

# HEALTH SCIENCES

## EMERGENCY SERVICES

ASSOCIATE OF APPLIED SCIENCE DEGREE

EMERGENCY MEDICAL TECHNICIAN PARAMEDIC (EMT-P)

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. Medical emergencies including automobile accidents, heart attacks, strokes, poisonings, childbirth, and substance abuse all require urgent care and transportation as well as quality care during transportation between medical facilities.

Employment opportunities for EMS personnel are expected to increase due to population growth, a larger percentage of the retired populace requiring care and transportation, new developments in the field of emergency medicine and changes in the healthcare field. Opportunities for EMS personnel are available in law enforcement, fire departments, private industry, search and rescue, hospitals, armed forces, and ambulance services.

EMS courses are offered when there is sufficient demand and are designed to prepare students for the National Registry Certification Examinations at specified levels.

### ADMISSION REQUIREMENTS

- 18 years of age prior to entering national certification process.
- Completion of BIO 213.
- 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.

### CRITERIA FOR FORMAL ACCEPTANCE WILL INCLUDE:

- Completion of BIO 213 courses with a grade of "C" or above.
- EMS pre-admission examination.
- Medical Director approval.

After successful completion of all prerequisite and EMS technical core courses, student will be able to apply to sit for the National Registry Certification Examination.

## EMS SUGGESTED COURSE OF STUDY

### FALL SEMESTER

Course	No.	Title	Credits
BIO	213	Anatomy & Physiology I/Lab	4
CS	110	Intro to Computers	3
ENGL	121**	Composition I	3
MATH	161**	Algebra w/ Science Applications	4
PSY	101	General Psychology	3
		Total	17

### SPRING SEMESTER

Course	No.	Title	Credits
AH	145	Intro to Med Terms	1
BIO	214*	Anatomy & Physiology II/Lab	4
COMM	135	Interpersonal Communications	3
EMS	102*	Fundamentals of Adv Care	3
		Electives	6
		Total	17

### FALL SEMESTER

Course	No.	Title	Credits
AH	140	Pharmacology	2
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
PSY	109	Lifespan Development <b>OR</b>	
SOC	111	Intro to Sociology	3
		Total	17

### 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
		Electives	2
		Total	16

TOTAL PROGRAM CREDITS – 67

### 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	280*	Microbiology	4
BM	106	Intro to Business	3
CHM	150*	Princ of Inorganic Chem	3
CHM	151*	Princ of Inorganic Chem/Lab	1
CHM	152*	Essentials of Organic Chem	3
CHM	153*	Essentials of Organic Chem/Lab	1
HI	156*	Legal & Regulatory Aspects of Healthcare	2
ML	100	Intro to American Sign Lang	3
PHIL	238	Medical Ethics	3
PHYS	130	Fund of Physical Science	4

72 \* Indicates prerequisites needed

\*\* Placement in course(s) is determined by admissions assessment

# HEALTH SCIENCES

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## EMERGENCY SERVICES

### EMT PARAMEDIC CERTIFICATE

ADVISOR: LARRY MYERS

#### SUGGESTED COURSE OF STUDY

##### FIRST SEMESTER

Course	No.	Title	Credits
AH	145	Intro to Med Terms	1
BIO	213	Anatomy & Physiology I/Lab	4
COMM	135	Interpersonal Communications	3
ENGL	121**	Composition I	3
MATH	161**	Algebra w/ Science Applications	4
		Total	15

##### SECOND SEMESTER

Course	No.	Title	Credits
AH	140	Pharmacology	2
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
		Total	17

##### THIRD SEMESTER

Course	No.	Title	Credits
BIO	214*	Anatomy & Physiology II/Lab	4
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
		Total	18

TOTAL PROGRAM CREDITS - 50

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“Education is when you read  
the fine print. Experience is  
what you get if you don’t.”

- Peter Seeger  
Singer and composer

# HEALTH SCIENCES

## 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, containment, and cleanup of hazardous material spills, 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 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.

Agreements for transfer of credit with other colleges in the state 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. Students will be required to complete an approved project to demonstrate their integration of learning in the majority of technical courses. It is strongly recommended that English Composition I be successfully completed before projects for this program are attempted.

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, and whenever available, course descriptions or syllabi. An Advisory Committee meets semi-annually to review requests for transfer of technical credit. See [www.montana.edu/wwwfire](http://www.montana.edu/wwwfire) for the most current program information.

## GENERAL EDUCATION REQUIREMENTS

Course	No.	Title	Credits
AH	150	Fitness for Life	2
BIO	107	Fund of Human Biology/Lab	4
COMM	130	Public Speaking	3
CS	110	Introduction to Computers	3
EMS	137*	EMT Basic	6
ENGL	121**	Composition I	3
ENGL	228*	Strategies of Business Comm <b>OR</b>	
ENGL	124*	Business & Professional Comm	3
MATH	---**	130 or above	4
PHYS	130	Fund of Physical Science <b>OR</b>	4
CHM	150*	Princ of Inorganic Chem	4
CHM	151*	Princ of Inorganic Chem/Lab	1
PSY	101	General Psychology	3
		Subtotal	35

## FIRE AND RESCUE TECHNICAL REQUIREMENTS

Course	No.	Title	Credits
FRS	101	Firefighter I	5
FRS	102	Firefighter II	5
FRS	112	Fire Inspection & Investigation	3
FRS	245	Fire Service Training & Safety Education	3
FRS	250	Building Construction	2
FRS	265	Incident Management & Safety	3
FRS	275	Tactical Operations	3
FRS	280	Company Management	3
FRS	285	Hazardous Materials	2
		Electives	3
		Subtotal	32

TOTAL PROGRAM CREDITS - 67

## SUGGESTED ELECTIVES

Course	No.	Title	Credits
PSY	109	Lifespan Development	3
SOC	111	Introduction to Sociology	3
		Wildland Fire Protection	3
		Aircraft Fire & Rescue	3
		Other Specialized Training	3

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

“There is only one thing about which I am certain, and that is that there is very little about which one can be certain.”

- Somerset Maucham (1874-1965) Writer

# HEALTH SCIENCES

## HEALTH INFORMATION TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: KARALEA FISHER

The Health Information Technology program is designed to prepare individuals to organize and evaluate health records for completeness and accuracy. Health information technicians begin to assemble patients' health information by first making sure their initial medical charts are complete. They ensure all forms are completed and properly identified and signed, and all necessary information is in the computer. Sometimes, they communicate with physicians or others to clarify diagnoses or get additional information. Technicians then use a software program to assign the patient to one of several hundred "diagnosis-related groups," or DRG's or APC's. In addition to the DRG system, coders use other coding systems known as encoders. Technicians also use computer programs to tabulate and analyze data to help improve patient care, to control costs, for use in legal actions, in response to surveys, or for use in research studies.

The Health Information Technology program is accredited by the American Health Information Management Association (AHIMA) and the Commission on the Accreditation of Allied Health Educational Programs (CAAHEP), which allows graduates to sit for the national certification examination to become a Registered Health Information Technician (RHIT).

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

Requirements for admission into the Health Information Technology program:

1. Completion of all prerequisite coursework.
2. Formal interview with the Health Information Technology program director (either by phone or in person).

NOTE: Curriculum is based on a full time schedule.

### YEAR I

Fall Semester is comprised of Prerequisite Courses (to be completed before entry into the Health Information Technology program core curriculum).

FALL SEMESTER			
Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3
BIO	107	Fund of Human Biology/Lab <b>OR</b>	
BIO	108	Human Biology for non-clinical majors	4
CS	110	Introduction to Computers	3
ENGL	121**	Composition I	3
		Subtotal	13

### SPRING SEMESTER

Course	No.	Title	Credits
AH	108*	Disease Concepts	2
AH	115	Health Care Personnel and Supervision	2
ENGL	228*	Strategies of Business Comm	3
HI	156*	Legal and Regulatory Aspects of Healthcare	2
MATH	150**	Math for Liberal Arts	3
		Subtotal	12

### SUMMER SEMESTER

Course	No.	Title	Credits
COMM	130	Public Speaking	3
PSY	101	General Psychology <b>OR</b>	
SOC	111	Introduction to Sociology	3
		Subtotal	6

### YEAR II

#### FALL SEMESTER

Course	No.	Title	Credits
AH	101	Healthcare Delivery	2
AH	194	Basic Pharmaceuticals	1
AH	201*	Medical Science	3
CS	205*	Database Management	3
HI	132*	Health Data Content & Structure	3
OO	111*	Fund of Health Insurance	4
		Subtotal	16

#### SPRING SEMESTER

Course	No.	Title	Credits
HI	210*	Statistical Health Informatics	4
HI	225*	Health Information Management	3
HI	236*	ICD Coding	3
HI	240*	Clinical Quality Assesment	3
HI	245*	Professional Practice Exp I	2
		Subtotal	15

#### SUMMER SEMESTER

Course	No.	Title	Credits
HI	237*	CPT Coding	3
HI	290*	Professional Practice Exp II	3
HI	292*	Topics in Health Info Tech	3
		Subtotal	9

TOTAL PROGRAM CREDITS – 68

### OPTIONAL ELECTIVES

These courses do not take the place of the required coursework above.

Course	No.	Title	Credits
AH	110	Exploring Complementary and Alternative Medicine	2
BUS	270*	Management Info Systems	3
CS	220*	Electronic Spreadsheets	3
HI	250*	Advanced Coding	2
HI	295*	Overview of Health Informatics Systems	4
HI	296*	Procedure & Practices of Health Care Informatics	3
HI	297*	Evaluation of Health Care Systems	2
OO	255*	Medical Transcription I	3

\* Indicates prerequisites needed

\*\* Placement in course(s) is determined by admissions assessment

# HEALTH SCIENCES

## HEALTH INFORMATION CODING SPECIALIST CERTIFICATE

ADVISOR: KARALEA FISHER

Health information coding is the transformation of verbal descriptions of diseases, injuries and procedures into alphanumeric designations. The Health Information Coding certificate program prepares entry-level coders with the skills to analyze health records and assign the appropriate code to each diagnosis and procedure according to national and international guidelines. They perform research and rely on their knowledge of medical terminology, anatomy, and disease processes to determine the correct codes and sequences. Coders then use a software program to assign the patient to one of several hundred “diagnosis-related groups,” or DRG’s or APC’s. Those who specialize in coding are called health information coders, medical record coders, coder/abstractors, or coding specialists. In addition to the DRG system, coders use other coding systems known as encoders.

The HI/HICS program is in the process of gaining certificate accreditation in cooperation with AHIMA’s Council on Accreditation.

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

Requirements for admission into the Health Information Coding Certificate program:

1. Completion of all prerequisite coursework.
2. Formal interview with the Health Information Technology program director (either by phone or in person).

NOTE: Curriculum is based on a full time schedule.

### YEAR I

#### PREREQUISITE COURSES

To be completed before entry into the Health Information Coding Specialist program core curriculum.

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3
BIO	107	Fund of Human Biology/Lab <b>OR</b>	
BIO	108	Human Biology for non-clinical majors	4
CS	110	Introduction to Computers	3
ENGL	121**	Composition I	<u>3</u>
Subtotal			12

#### FALL SEMESTER

Course	No.	Title	Credits
AH	101	Healthcare Delivery in the US	2
HI	132*	Health Data Content & Structure	3
OO	111*	Fund of Health Insurance	4
PSY	101	General Psychology <b>OR</b>	
SOC	111	Introduction to Sociology	<u>3</u>
Subtotal			12

#### SPRING SEMESTER

Course	No.	Title	Credits
AH	194	Basic Pharmaceuticals	1
AH	201*	Medical Science	3
HI	156*	Legal and Regulatory Aspects of Healthcare	2
HI	236*	ICD Coding	3
MATH	---**	103 or Higher	<u>4</u>
Subtotal			13

#### SUMMER SEMESTER

Course	No.	Title	Credits
HI	237*	CPT Coding	<u>3</u>
Subtotal			3

### YEAR II

#### FALL SEMESTER

Course	No.	Title	Credits
HI	150*	Professional Practice - Coding	2
HI	250*	Advanced Coding	<u>2</u>
Subtotal			4

TOTAL PROGRAM CREDITS – 44

#### OPTIONAL ELECTIVES

These courses do not take the place of the required coursework above.

Course	No.	Title	Credits
AH	110	Exploring Complimentary and Alternative Medicine	2
BIO	280*	Microbiology & Communicable Diseases	4
CS	205*	Database Management	3
OO	255*	Medical Transcription I	3

#### MEDICAL INFORMATICS COURSES

##### TO BE USED IN TRANSFER

The Health Information Technology program at MSU – Great Falls College of Technology is working with a variety of higher education institutions to provide students with career advancement opportunities. To assist students who are interested in this cutting edge career option, three additional HI courses that are medical informatics-specific and will transfer toward a higher-level degree in healthcare informatics are offered.

For more information, contact the HI/HICS program director.

Course	No.	Title	Credits
HI	235*	Overview of Health Informatics Systems	4
HI	296*	Procedure and Practices of Health Care Informatics	3
HI	297*	Evaluation of Health Care Systems	2

76 \* Indicates prerequisites needed  
 \*\* Placement in course(s) is determined by admissions assessment

## MEDICAL BILLING SPECIALIST CERTIFICATE

ADVISOR: DEBORAH NEWTON

The Medical Billing Certificate program is designed to prepare the student for employment as a medical biller in a medical or dental office, hospital, clinic, or independent billing company. Instruction will include theory and practice to meet the competencies identified as necessary for entry-level employment. Students will learn to prepare various health claims forms required by the insurance industry using medical billing software. This involves practicing accurate interpretation of medical records, correctly documenting and coding information, and submission of forms to the insurance company for reimbursement. The emphasis is on the high level of responsibility required and the attention to detail and accuracy needed to be a competent medical biller.

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

### REQUIRED SKILL

OO 107 Keyboarding Basics or Challenge Exam  
CS 110 Introduction to Computers

### FALL SEMESTER

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3
BIO	108	Human Biology for the non-clinical major	4
ENGL	121**	Composition I	3
HI	132*	Health Information Processes	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	2
HI	236*	ICD Coding	3
MATH	---**	103 or Higher	4
OO	112*	Adv Health Insurance Tech	3
PSY	101	General Psychology <b>OR</b>	
SOC	111	Introduction to Sociology	3
		Subtotal	18

### SUMMER SEMESTER

Course	No.	Title	Credits
HI	237*	CPT Coding	3
OO	290*	Insurance Internship	3
		Subtotal	6

TOTAL PROGRAM CREDITS – 41

# HEALTH SCIENCES

## MEDICAL ASSISTANT

ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: CYNTHIA MYLES

**NOTE: The Medical Assistant Program is in moratorium. Students will not be accepted into the program for the 2004-2005 academic year.**

The Certified Medical Assistant (CMA) is the only health professional specifically trained to work in outpatient or ambulatory settings such as physician's offices, group practices and clinics.

Certified Medical Assistants are multi-skilled health professionals who are cross trained to work in the smooth operation of the outpatient setting under the supervision of the physician, nurse practitioner or physician's assistant. The CMA constantly interacts with patients, families and other health care givers.

A grade of "C" or above must be achieved in all prerequisite and required courses to successfully complete the Medical Assistant Program and earn an Associate of Applied Science Degree.

Prior to the clinical externship, students must carry current certification in CPR, Provide proof of vaccination for Hepatitis B, MMR, and a negative Tuberculin test or approved treatment, have a notarized Contract of Confidentiality on file with the Program Director, and proof of liability insurance.

### REQUIRED SKILL

OO 107 Keyboarding Basics  
or Challenge Exam

### PREREQUISITE COURSES

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3
AH	185	Basic Medical Terminology	3
COMM	135	Interpersonal Communications	3
CS	110	Introduction to Computers	3
MATH	161**	Algebra w/ Science Applications	4
		Subtotal	16

### REQUIRED COURSES

Course	No.	Title	Credits
AH	140*	Pharmacology	2
AH	201*	Medical Science	3
BIO	213	Anatomy & Physiology I/Lab	4
BIO	214*	Anatomy & Physiology II/Lab	4
ENGL	121**	Composition I	3
ENGL	124*	Business & Professional Comm	3
HI	132*	Health Information Processes	3
HI	236*	ICD Coding	3
HI	237*	CPT Coding	3
MO	138*	Clinical Procedures I	3
MO	238*	Clinical Procedures II	3
MO	241*	Clinical Review	1
MO	242*	Externship	4
OO	111*	Fund of Health Insurance	4
OO	250*	Comps in Medical/Dental Off	1
OO	255*	Medical Transcription I	3
OO	265*	WordPerfect OR	3
OO	266*	Microsoft Word	3
PSY	101	General Psychology	3
		Subtotal	52
		Prerequisites	16

TOTAL PROGRAM CREDITS – 68

### SUGGESTED ELECTIVES

Course	No.	Title	Credits
BUS	230*	Management	3
HI	156	Legal and Regulatory Aspects of Healthcare	2
OO	220	Interviewing for Jobs	1
OO	221	Resumes	1
PHIL	238	Medical Ethics	3

“Life is a great big canvas;  
throw all the paint on it you  
can.”

- Danny Kaye (1913-1987) Entertainer



# HEALTH SCIENCES

## PHYSICAL THERAPIST ASSISTANT

ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISOR: CHRISTINE KOWALSKI

**NOTE: The Physical Therapist Assistant Program is in moratorium. Students will not be accepted into the program for the 2004-2005 academic year.**

The Physical Therapist Assistant program is designed to graduate entry-level physical therapist assistants who, under the supervision of a physical therapist, assist in implementing treatment programs such as teaching patients to perform exercises and activities of daily living; coordinating treatments using special equipment and/or a variety of modalities such as heat and cold, massage, hydrotherapy, or electrotherapy; and reporting/recording the patient's progress.

A grade of "C" (76%) or above is required in each didactic course in order to progress through the program and fulfill all graduation requirements. Clinical education is also incorporated into the curriculum design. Clinical education consists of one 3-week, one 4-week and one 8-week clinical experience. The clinical sites for these experiences are located throughout the state of Montana. Additional travel/living expenses are incurred by the student for clinical sites not located in the immediate vicinity.

Admission into the program is based upon meeting application deadlines and satisfactory completion of criteria. Students are encouraged to meet with the program advisor to receive guidance in planning course work.

Montana requires licensure prior to practicing within the state. Licensure information may be obtained from the Board of Physical Therapy Examiners, Helena MT.

Montana State University - Great Falls College of Technology's Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association (CAPTE/APTA).

### PRE-PHYSICAL THERAPIST ASSISTANT REQUIREMENTS

Background in basic sciences and proficiency in computer skills are essential to success in the Physical Therapist Assistant Program. Prior to Fall admission into the PTA program students must:

- Have completed High school Biology, Physics, and Chemistry, or college equivalent;
- Have completed 40 hours of observation at physical therapy clinics/ facilities;
- Write and submit a short reflective paper detailing their experiences at clinical observations (criteria for this paper is provided to the student);
- Show proof of computer literacy (high school or college courses, or challenge exam);
- Provide three letters of reference.

### PRE-REQUISITE COURSES

Course	No.	Title	Credits
AH	108*	Disease Concepts	2
AH	212*	Fundamentals of Neurology	3
BIO	213	Anatomy & Phys I Lecture/Lab	4
BIO	214*	Anatomy & Phys II Lecture/Lab	4
COMM	130	Public Speaking <b>OR</b>	
COMM	135	Interpersonal Communications	3
ENGL	121**	Composition I	3
MATH	161**	Algebra w/ Science Applications	4
PSY	101	General Psychology	3
PSY	109	Lifespan Development	3
Subtotal			29

### REQUIREMENTS AFTER FORMAL ACCEPTANCE

#### FALL SEMESTER

Course	No.	Title	Credits
AH	217*	Motion & Human Body's Response	2
AH	218*	Motion & Human Body's Response Lab	2
PTA	100	Intro to Physical Therapy	3
PTA	101*	Physical Therapist Assisting I	2
PTA	102*	Physical Therapist Assisting I Lab	2
PTA	110	Intro to Physical Therapy Lab	1
PTA	210*	Clinical Experience I	3
Subtotal			15

#### SPRING SEMESTER

Course	No.	Title	Credits
PTA	201*	Physical Therapist Assisting II	2
PTA	202*	Physical Therapist Assisting II Lab	2
PTA	203*	Physical Therapy Project	1
PTA	208*	Neuroscience I	2
PTA	211*	Physical Therapist Assisting III	2
PTA	212*	Physical Therapist Assist III Lab	2
PTA	215*	Introduction to Orthopedics	2
PTA	216*	Introduction to Orthopedics Lab	1
PTA	220*	Clinical Experience II	4
Subtotal			18

#### SUMMER SEMESTER

Course	No.	Title	Credits
PTA	225*	Procedures & Applications	2
PTA	230*	Clinical Experience III	7
Subtotal			9

TOTAL PROGRAM CREDITS – 69

\* Indicates prerequisites needed  
 \*\* Placement in course(s) is determined by admissions assessment

# HEALTH SCIENCES

## PRACTICAL NURSE ASSOCIATE OF APPLIED SCIENCE

ADVISORS: CHERYLL ALT  
ROBYN BUSH  
PATTI KERCHER  
CYNTHIA MYLES

The Practical Nurse program is designed to prepare individuals to function as entry-level practical nurses with the ability to give safe, effective nursing care using the nursing process.

The Practical Nurse program at Montana State University - Great Falls College of Technology is currently approved by the Montana State Board of Nursing. Upon graduation from the program, students are eligible to take the licensure examination. The length of the program is 12 months.

Current CPR and TB test is a prerequisite for entrance into the first clinical experience. 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.

The students will sign program policies and a contract for clinical performance as they enter the Practical Nurse program. Credits earned 5 or more calendar years earlier will be reviewed by the appropriate Department Chair, Lead Faculty, and/or the Registrar, who may require repetition of any course in which the content has substantially changed. A minimum grade of "C" must be attained in all courses. A grade of "C" must be achieved in the lecture and lab portion of Nursing Fundamentals I, Nursing Fundamentals II, Medical/Surgical Nursing and Maternal Child Nursing before entering the course clinicals. If a student obtains less than a grade of "Satisfactory" (75%) in any portion of Nursing Fundamentals I, Nursing Fundamentals II, Medical/Surgical Nursing or Maternal Child Clinical, the entire course(s) will have to be repeated.

**Due to the competition for available slots in the program, all courses within the nursing program may be repeated only one time.** Failure to obtain a "C" and "Satisfactory" the second time will result in dismissal from the Practical Nurse program.

A limited number of students will be accepted into the program on a part-time status at the discretion of the practical nurse faculty. Full-time students will be given priority during enrollment into clinical experiences.

## PRE-PRACTICAL NURSE REQUIRED COURSES

Background in general education and basic science is essential to prepare the applicant to succeed in the practical nursing program. Applicants must complete the following courses with a minimum grade of "C" in each course prior to acceptance into the program. After successful completion of all of the prerequisites the student will receive acceptance into the nursing program.

### PREREQUISITE COURSES

Course	No.	Title	Credits
AH	145	Intro to Medical Terminology	1
BIO	213	Anatomy & Physiology I/Lab	4
COMM	135	Interpersonal Communications	3
CS	110	Introduction to Computers	3
ENGL	121**	Composition I	3
MATH	161**	Algebra w/ Science Applications <b>OR</b>	
MATH	130**	Precalculus Algebra	4
		Subtotal	18

### SUGGESTED ELECTIVES

Course	No.	Title	Credits
AH	103	Fund of Health Occupations	2
AH	110	Exploring Comp & Alt Medicine	2
PHIL	238	Medical Ethics	3



# HEALTH SCIENCES

## FALL ENTRY

### PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE

#### FALL SEMESTER

Course	No.	Title	Credits
AH	140*	Pharmacology	2
AH	221*	Human Nutrition	3
BIO	214*	Anatomy & Physiology II/Lab	4
PN	141*	Perspectives of Nursing	1
PN	155*	Nursing Fundamentals I	6
PSY	109	Lifespan Development	3
Subtotal			19

#### SPRING SEMESTER

Course	No.	Title	Credits
PN	131*	Medical/Surgical Nursing	13
PN	156*	Nursing Fundamentals II	4
Subtotal			17

#### SUMMER TERM

Course	No.	Title	Credits
AH	120*	Intravenous Therapy	1
PN	236*	Mental Health	2
PN	243*	Maternal Child Nursing	7
PN	246*	Nursing Issues & Trends	1
Subtotal			11

TOTAL PROGRAM CREDITS - 65

## SPRING ENTRY

### PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE

#### SPRING SEMESTER

Course	No.	Title	Credits
AH	140*	Pharmacology	2
AH	221*	Human Nutrition	3
BIO	214*	Anatomy & Physiology II/Lab	4
PN	141*	Perspectives of Nursing	1
PN	155*	Nursing Fundamentals I	6
PSY	109	Lifespan Development	3
Subtotal			19

#### SUMMER TERM

Course	No.	Title	Credits
PN	132*	Medical/Surgical Nursing I	6
PN	156*	Nursing Fundamentals II	4
Subtotal			10

#### FALL SEMESTER

Course	No.	Title	Credits
AH	120*	Intravenous Therapy	1
PN	133*	Medical/Surgical Nursing II	7
PN	236*	Mental Health	2
PN	243*	Maternal Child Nursing	7
PN	246*	Nursing Issues & Trends	1
Subtotal			18

TOTAL PROGRAM CREDITS - 65



\* Indicates prerequisites needed  
 \*\* Placement in course(s) is determined by admissions assessment

# HEALTH SCIENCES

## RESPIRATORY CARE

ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISORS: LEONARD BATES  
GREG PAULAUSKIS

Respiratory Care is a healthcare specialty that offers a set of unique challenges in prevention, treatment, management, and rehabilitation of people with lung problems. Respiratory Care involves a wide variety of life saving, life supporting situations, working side by side with physicians, nurses, and others on the healthcare team, and treating patients ranging in age from newborns to senior citizens.

The work of respiratory care practitioners involves the administration of treatments using sophisticated medical equipment to patients with lung disorders such as asthma, emphysema, pneumonia, and bronchitis. The respiratory care practitioner also works as a member of the critical care team, in laboratories, in rehabilitation, and in home care. Excellent judgment, assessment, and communications skills are essential for the respiratory care practitioner.

Problem solving and creative thinking are also essential skills for respiratory care professionals. The curriculum is designed to develop critical thinking and analytical skills including collection and organization of data as well as the ability to develop logical actions based on data analysis.

The Respiratory Care Program is a two-year program designed to prepare individuals to work as respiratory therapists. It is fully accredited by the Commission on Accreditation of Allied Health Education Programs through the Committee on Accreditation of Respiratory Care Programs.

The program combines classroom, laboratory, and clinical courses taught at the College and hospitals. Upon completion the graduate will receive an Associate of Applied Science Degree and be eligible to take the National Board for Respiratory Care certification and registry examinations.

A grade of "C" or above must be earned in all required courses to continue in and complete the program. CPR is a prerequisite for entrance into the first clinical experience.

All students must sign a clinical contract defining their professional responsibility and behavior. All students are required to complete two to four weeks of clinic outside of Great Falls during the summer semester.

### PRE-RESPIRATORY CARE REQUIRED COURSES

Background in related instruction and basic science is essential to prepare applicants to succeed in the Respiratory Care Program.

All applicants must have completed high school chemistry with a grade of "B" or higher, computer applications courses with a "C" or higher, or have equivalent college courses with a grade of "C" or higher.

Applicants must complete the following courses with a minimum grade of "C" in each course prior to formal acceptance into the program.

82 \* Indicates prerequisites needed  
\*\* Placement in course(s) is determined by admissions assessment

### PREREQUISITE COURSES

Course No.	Title	Credits
BIO 213	Anatomy & Physiology I/Lab	4
ENGL 121**	Composition I	3
MATH 161**	Algebra w/ Science Applications	4
# Human Relations – one course		<u>3</u>
Subtotal		17

#Students may select from COMM 135 Interpersonal Comm, COMM 130 Public Speaking, PSY 101 General Psychology, or PSY 109 Lifespan Development.

The courses below are to be taken in the order that they are listed. Admission into the Respiratory program and completion of the previous semester are required.

### PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE

#### FALL SEMESTER

Course No.	Title	Credits
AH 140*	Pharmacology	2
BIO 214*	Anatomy & Physiology II/Lab	4
RC 150	Respiratory Care	3
RC 155	Respiratory Physiology	3
RC 170	Resp Tech & Procedures I	<u>5</u>
Subtotal		17

#### SPRING SEMESTER

Course No.	Title	Credits
RC 140*	Resp Care Clinic I (2 days/wk)	5
RC 171*	Resp Techn & Procedures II	5
RC 180	Ventilator Management	2
RC 255*	Pulmonary Assessment	3
RC 275	Pulmonary Disease	<u>2</u>
Subtotal		17

#### SUMMER SEMESTER

Course No.	Title	Credits
RC 141*	Resp Care Clinic II (4 days/wk 8 wks)	5
RC 260	Neonatal Respiratory Care	<u>3</u>
Total		8

#### FALL SEMESTER

Course No.	Title	Credits
AH 120*	IV Therapy	1
EMS 145*	ACLS Preparation	1
RC 240	Resp Care Clinic III (2 days/wk)	6
RC 245	Resp Care Clinical Seminar I	1
RC 250	Hemodynamic Monitoring	3
RC 265*	Resp Care in Alternative Sites	1
RC 273	Pulmonary Function Testing	<u>1</u>
Subtotal		14

#### SPRING SEMESTER

Course No.	Title	Credits
BIO 280*	Microbiology	4
EMS 146	PALS Preparation	1
RC 241	Resp Care Clinic IV (3 days/wk)	6
RC 246	Resp Care Clinical Seminar II	1
RC 280	Supervisory Management	<u>2</u>
Subtotal		14

TOTAL PROGRAM CREDITS - 84

# HEALTH SCIENCES

## SURGICAL TECHNOLOGY CERTIFICATE

ADVISOR: DIONA DAVIS

Surgical technologists, (ST) often referred to as a “scrub tech or operating room tech” are integral members of the operating room team. Primary responsibilities include working side-by-side the surgeon passing instrumentation and supplies as needed during surgical procedures; preparing and sterilizing instrumentation; preparing the room by cleaning and opening supplies; preparing and sterilizing instrumentation; preparing the room by cleaning and opening supplies; preparing necessary equipment such as computers, robotic pieces, lasers, microscopes and power equipment; donning gown and gloves; arranging instrumentation and providing communication to team members concerning sterile technique issues. Other responsibilities include working with the anesthesiologists, registered nurses and other surgical personal to give direct or indirect patient care.

Surgical techs usually work within the operating room itself which may offer specialization in specific fields such as orthopedics, plastics, ENT, ophthalmic or cardiovascular. However technicians may qualify for work within various medical fields also 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 does the opportunities for the working surgical technician.

The curriculum is designed as a hybrid class of classroom and online instruction 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, then participate in a supervised position to completing the internship as a solo technician.

The surgical technology program at Montana State University – Great Falls College of Technology 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 prior to entry in the fall semester. Application is available from the program director or online.

Also to be noted is the program is nationally accredited through the CAAHEP and the Association of Surgical Technologists. This enables the graduate to sit for the national certification exam and use the title of a certified surgical technician (CST) which is required by most employers.

“Change your thoughts and  
you change the world”

- Harold R. McAlindon - Writer

### REQUIRED SKILL

CS 110 Introduction to Computers **OR**  
Challenge Exam

### PREREQUISITE COURSES

Course	No.	Title	Credits
AH	108*	Disease Concepts	2
AH	145	Intro to Med Terminology	1
AH	194	Basic Pharmaceuticals	1
BIO	107	Fund of Human Biology/Lab	4
COMM	135	Interpersonal Communication	3
ENGL	120**	Intro to Composition <b>OR</b>	3
ENGL	121**	Composition I	
MATH	101**	Introductory Algebra	4
Subtotal			18

### FALL SEMESTER

Course	No.	Title	Credits
SURG	102	Safe Pt Care & Op Rm Tech	5
SURG	104*	Surgical Technology Lab	7
SURG	105	Surgical Procedures I	4
Subtotal			16

### SPRING SEMESTER

Course	No.	Title	Credits
SURG	106*	Surgical Procedures II	5
SURG	192*	Clinical Experience I	4
SURG	193*	Clinical Experience II	4
Subtotal			13

### SUMMER SEMESTER

Course	No.	Title	Credits
SURG	194*	Internship	4
Subtotal			4

TOTAL PROGRAM CREDITS – 51



\* Indicates prerequisites needed  
\*\* Placement in course(s) is determined  
by admissions assessment



## Course Descriptions

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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, corequisites, term 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

Courses offered on “Sufficient Demand” are indicated as such in the course descriptions.

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.

General Education core courses are designated by a letter following the course number (e.g. ENGL 121W). The following letters are used to specify the core groups:

- CS     Contemporary Science
- D      Diversity
- HI     History
- IA     Inquiry Arts
- IH     Inquiry Humanities
- IS     Inquiry Social Sciences
- Q      Quantitative Reasoning
- RH     Research Humanities
- US     University Seminar
- W      Writing

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.

# COURSE DESCRIPTIONS

## ACCOUNTING

ACCT 101 ACCOUNTING PROCEDURES I *Tech Prep* (F,S)  
Credits: 3  
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. Emphasis is on manual accounting systems.

ACCT 102 ACCOUNTING PROCEDURES II *Tech Prep* (F,S)  
Credits: 3  
Prerequisites: ACCT 101, CS 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. Emphasis is on manual accounting systems.

ACCT 190 PAYROLL ACCOUNTING (F,S)  
Credits: 3  
Prerequisites or Corequisites: ACCT 101, CS 110, MATH 104, MATH 108 or MATH 130  
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 (F,S)  
Credits: 3  
Prerequisites: ACCT 102, CS 110, 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 (F,S)  
Credits: 3  
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 (F)  
Credits: 3  
Prerequisites: ACCT 190, ACCT 221, CS 220  
Students will complete a variety of accounting projects using microcomputer accounting software.

ACCT 230 IRS VOLUNTEER INCOME TAX ASSISTANCE (VITA) (S)  
Credits: 2  
Each student will successfully complete an IRS course on the preparation and electronic filing of both federal and state tax returns using computer software. In addition, each student will be required to work a minimum of 4 hours each week at the IRS VITA site at the Great Falls College of

Technology preparing tax returns and performing other administrative tax duties from the beginning of February through the end of tax season on April 15th.

ACCT 231 INCOME TAX FUNDAMENTALS (S)  
Credits: 3  
Prerequisites: ACCT 190, ACCT 221, CS 220  
This course introduces students to the basic income taxation principles, concepts, and procedures of individuals, proprietorships, partnerships, and corporations.

## ALLIED HEALTH

AH 101 HEALTHCARE DELIVERY IN THE U.S. (F)  
Credits: 2  
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 102 FIRST AID & CPR (F, S, SU Sufficient Demand)  
Credits: 1  
This course is designed so students can receive their Healthcare Provider CPR card. The students will be exposed to adult, child and infant CPR techniques and basic first aid procedures until advanced life support arrives.

AH 103 FUNDAMENTALS OF HEALTH OCCUPATIONS (F, S, SU Sufficient Demand)  
Credits: 2  
Students are introduced to the variety of professions in the healthcare industry and explore basic health care concepts and skills.

AH 108 DISEASE CONCEPTS (F, S, SU Sufficient Demand)  
Credits: 2  
Prerequisites: BIO 107 or BIO 108  
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 (F, S, SU Sufficient Demand)  
Credits: 2  
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 (S)  
Credits: 2  
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 THERAPIES (F, SU)  
Credits: 1  
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.

# COURSE DESCRIPTIONS

AH 125 FUNDAMENTALS OF FORENSIC SCIENCE

Credits: 2 (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 a 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.

AH 194 BASIC PHARMACEUTICALS  
Credits: 1 (F, S)

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 107 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 212 FUNDAMENTALS OF NEUROLOGY  
Credits: 3 (F, S)

Prerequisites: BIO 213  
Students are introduced to the neuroanatomy and physiology of the central nervous system and the peripheral nervous system. The course will provide foundational knowledge of current accepted theory of how the nervous system functions normally as well as its response to injury or disease process.

AH 217 MOTION & HUMAN BODY'S RESPONSE  
Credits: 2 (F)

Co-requisites: PTA 100, 101, 102, 110  
This course provides the students with an understanding of the biomechanics of normal and abnormal movement, and osteology and arthology relative to joint mechanics and muscle action. The components of functional movement will be emphasized. Postural and gait assessment are introduced. The theories of goniometry and manual muscle testing are studied.

AH 218 MOTION AND THE HUMAN BODY'S RESPONSE LAB  
Credits: 2 (F)

Co-requisite: AH 217  
This course is the laboratory component of AH 217, and provides students with practice in the application of goniometry measurements, palpation of bony landmarks, techniques for manual muscle testing, and palpation of soft tissue structures. Postural and gait assessment are practiced.

AH 221(CS) HUMAN NUTRITION  
Credits: 3 (F,S)

Prerequisite: BIO 213 OR CHM 150(IN)/151(IN)  
This course provides a basic understanding of human nutrition as related to the optimal nutrition, health and well being of the individual and family.

## ANTHROPOLOGY

ANT 101(D) INTRODUCTION TO ANTHROPOLOGY  
Credits: 3 (SU, 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 101(IA) INTRODUCTION TO VISUAL ARTS  
Credits: 3 (Sufficient Demand)

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.

# COURSE DESCRIPTIONS

ART 114(IA) ART FUNDAMENTALS  
Credits: 3 *Tech Prep* (Sufficient Demand)  
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(IA) DRAWING I *Tech Prep*  
Credits: 3 (Sufficient Demand)  
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.

## BIOLOGY

BIO 103(IN) BIOLOGY OF ORGANISMS LECTURE/LAB  
Credits: 4 (F,S,SU)  
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(IN) FUNDAMENTALS OF HUMAN *Tech Prep*  
BIOLOGY LECTURE/LAB  
Credits: 4 (F,S,SU)  
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 108(IN) HUMAN BIOLOGY FOR  
NON-CLINICAL MAJORS  
Credits: 4 (F,S,SU)  
This one-term course covers the basics of the human anatomy 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 students entering non-clinical health fields and will include virtual lab work.

BIO 205(CS) 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 (F,S,SU)  
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. Completion of CHM

150/151, the Principles of Inorganic Chemistry, prior to BIO 213 will transfer to MSU-Bozeman as Anatomy and Physiology I and II.

BIO 214 ANATOMY AND PHYSIOLOGY II  
LECTURE/LAB  
Credits: 4 (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 150/151, Anatomy & Physiology I and II, with labs, will transfer to MSU-Bozeman as Anatomy & Physiology I and II.

BIO 255(IN) PRINCIPLES OF GENETICS  
Credits: 3 (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 (F,S)  
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 106 INTRODUCTION TO BUSINESS *Tech Prep*  
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 145 FUNDAMENTALS OF INVESTING  
Credits: 1 (F,S)  
This course is an introduction to the fundamentals of investing. Topics studied include stocks (ownership of businesses), fixed income products such as CD's, bonds (loaning money to banks or businesses) and mutual funds. Students will also read financial newspapers, watch investment programs and learn about the various stock markets.

BUS 200 SPECIAL PROJECTS  
Credits: 1-6  
Students will apply competencies learned from other accounting, microcomputer, management, an other office related courses to complete independent projects. Projects will be considered advanced, work, or job related. Prerequisites may be required.

BUS 220 SALES  
Credits: 3 (F)  
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.

# COURSE DESCRIPTIONS

BUS 225 RISK MANAGEMENT  
Credits: 3 (Sufficient Demand)  
Risk Management is a course designed to introduce the terminology and strategies of the management of personal and business risks. Emphasis will be on the use of insurance to manage risks including life, health, automobile, property, and business risk considerations.

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 250 COOPERATIVE WORK EXPERIENCE  
Credits: Variable (Sufficient Demand)  
Students enrolled in business and technology programs will have the opportunity to receive on-the-job training through the cooperative work experience program. Each student will obtain approved positions that will be supervised by employers and the instructor/coordinator. The course also includes one hour of classroom work per week.

BUS 255 LEGAL ENVIRONMENT  
Credits: 3 (F,S)  
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.

BUS 260 ENTREPRENEURSHIP  
Credits: 3 (S)  
Prerequisite: BUS 106, BUS 230, BUS 235, ACCT 221 or Instructor consent.  
Corequisite: 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

BUS 270 MANAGEMENT INFORMATION SYSTEMS  
Credits: 3 (Sufficient Demand)  
This course is an introduction to computer-based information systems used in business. Topics include strategic and managerial uses of information, computer hardware and software, decision support systems, database systems, and control and security procedures. Various application software to analyze business decisions will be utilized.

## BIOSCIENCE TECHNOLOGY

BST 105 ELECTRONICS ESSENTIALS  
Credits: 3 (Sufficient Demand)  
Prerequisite: High School Algebra or college equivalent  
This lecture/lab course provides an introduction to electronic terms and AC-DC concepts. The essential physical principles of modern electronic circuitry and construction of integrated circuits will be covered. Emphasis is on the laws and formulas used to analyze circuits. Discussion of technologies, physics, and practical issues surrounding today's most important electronic instrumentation is included.

BST 110 ELECTRONIC INSTRUMENTATION AND MEASUREMENTS I  
Credits: 4 (Sufficient Demand)  
Prerequisites: MATH 108, BST105

This lecture/lab course provides an introduction to ordinary workshop and laboratory instrumentation. Coverage of instrumentation includes an introduction to solid state devices; basic diode and transistor circuits, including power supplies, amplifiers and switching circuits, and operational amplifiers. Information presented in this course establishes a basis for handling, interpreting and understanding the data collected by instruments. It includes practical material oriented toward various fields of measurement; electronic communication, audio, components testing, medical electronics, and servicing.

BST 112 ELECTRONIC INSTRUMENTATION AND MEASUREMENTS II  
Credits: 5 (Sufficient Demand)  
Prerequisites: MATH 130(Q), BST 110

This course is a continuation of BST 110 that introduces binary arithmetic, logic, logic symbols, and basic logic circuitry. Sequential logic will be discussed for use in the study of digital timing circuits, counters, registers, and arithmetic circuits used in digital systems. Coverage also includes both analog and digital meters and multimeters, inductance and capacitance measurements, instrument calibration, and low, high, and precise resistance measurements.

BST 120 INTRO TO LABORATORY ANIMAL SCIENCE  
Credits: 3 (Sufficient Demand)

This course is an introduction to laboratory animal science, offering certification as a Laboratory Animal Technician. Topics include: scientific fundamentals in laboratory animal science, breeding and husbandry, equipment, environment and hygiene, animal health, signs of disease, and disease prevention, unique features of common laboratory species, infrequently used laboratory animals, and a brief discussion of surgical and research techniques.

BST 122 LABORATORY ANIMAL TECHNICIAN I/II  
Credits: 3 (Sufficient Demand)

This is an extensive course initiating potential certification as a Laboratory Animal Technologist/Technician. Unique topics covered in this course include: management; genetics and breeding; quality assurance; gnotobiology; and pharmacology. Discussion of diagnostic techniques and common diseases and treatment of laboratory animals are included, as well as anesthesia and experimental modeling and design.

# COURSE DESCRIPTIONS

## BST 140 HAZARDOUS MATERIAL HANDLING/ GOVERNMENTAL REGULATIONS

Credits: 3 (Sufficient Demand)

Prerequisites: CHM 150(IN), BIO 213

This course is a coverage of federal, state, and local governmental agencies responsible for determining and enforcing rules and regulations affecting pollution of the environment, laboratory work, and health and safety of people in the laboratory and industry. Discussion of good manufacturing practices (GMP), quality control (QC), clinical trials, FDA regulations, and other topics related to the handling and manufacture of biological products will be included.

## BST 210 BIOMEDICAL INSTRUMENTATION I

Credits: 5 (Sufficient Demand)

Prerequisite: BST 112

This course introduces the student to the theory of operation, testing, troubleshooting, and servicing of biomedical instrumentation circuits and instrumentation transducers. Topics of discussion include bioelectric amplifiers, electroradiographs, physiological pressure measurements, cardiac stimulation and life support equipment, respiratory instrumentation and respiratory therapy equipment.

## BST 212 BIOMEDICAL INSTRUMENTATION II

Credits: 5 (Sufficient Demand)

Prerequisite: BST 210

This course is a continuation of BST 210 completing the theory of operation, testing, troubleshooting, and servicing of biomedical instrumentation circuits and instrumentation transducers. Topics of discussion include instrumentation for measuring brain parameters, intensive and coronary care units, operating rooms, medical laboratory instrumentation, medical ultrasound, electrosurgery generators, medical recorders, medical oscilloscopes, hemodialysis machines, radiology and nuclear medicine equipment, computers in biomedical equipment, and electrical safety in the medical environment.

## BST 220 PRINCIPLES OF INHERITANCE

Credits: 3 (Sufficient Demand)

Prerequisites: BST 120, CHM 150(IN), CHM 152(IN)

BST 220 is an introduction to classical and molecular genetics of prokaryotes, eukaryotes, and viruses. Topics include transmission genetics, quantitative genetics, the study of DNA replication, transcription, translation, regulation of genes, and mechanisms of genetic change. Core aspects of bacteriology and virology such as structure, growth, metabolism and genetics/molecular biology are emphasized.

## BST 222 METHODS IN BIOSCIENCE TECHNOLOGY I

Credits: 3 (Sufficient Demand)

Corequisite: BST 220

This lecture/lab course focuses on techniques in cell biology such as protein extraction, purification, quantification, electrophoresis, enzyme assay and tissue culture.

## BST 224 METHODS IN BIOSCIENCE TECHNOLOGY II

Credits: 4 (Sufficient Demand)

Prerequisite: BST 222

This lecture/lab course focuses on techniques in molecular biology such as DNA extraction, quantification, electrophoresis, transformation and gene cloning.

## BST 250 EXTERNSHIP IN BIOSCIENCE TECHNOLOGY

Credits: 4-5 (Sufficient Demand)

Prerequisite: BST 140, consent of program director

BST 250 is an individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

## CIVIL ENGINEERING TECHNOLOGY

### 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 150(IN) PRINCIPLES OF INORGANIC CHEMISTRY

Credits: 3 *Tech Prep* (F, S, SU)

Corequisite: CHM 151(IN)

Prerequisite: MATH 101

This course is a systematic study of the principles of inorganic chemistry with emphasis on scientific measurement, atomic structure, chemical periodicity, chemical bonding, nomenclature, stoichiometry, chemical reactions, acid-base chemistry, electrochemistry, gas laws and nuclear chemistry.

### CHM 151(IN) PRINCIPLES OF INORGANIC CHEMISTRY LABORATORY *Tech Prep*

Credits: 1 (F, S, SU)

Corequisite: CHM 150(IN)

This laboratory course provides experimentation dealing with the topics covered in CHM 150.

### CHM 152 ESSENTIALS OF ORGANIC CHEMISTRY

Credits: 3 (F, S)

Prerequisites: CHM 150(IN) and CHM 151(IN) with a grade of "C" or higher

A one-semester introduction to organic chemistry, this course surveys organic and biochemical molecules salient to organic chemistry and biochemistry. It is especially designed for students aspiring to enter a health occupation. Names, structures and functions of key organic and biochemical molecules are discussed. Some time is spent on metabolism, cellular processes, nutrition, and foods.

### CHM 153 ESSENTIALS OF ORGANIC CHEMISTRY LABORATORY

Credits: 1 (F, S)

Corequisite: CHM 152

CHM 153 is a laboratory providing experimentation dealing with topics covered in CHM 152.

### COMMUNICATIONS

### COMM 130(US) PUBLIC SPEAKING *Tech Prep*

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(US) INTERPERSONAL COMMUNICATIONS

Credits: 3 *Tech Prep* (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.

# COURSE DESCRIPTIONS

## COMPUTER TECHNOLOGY

CS 070 COMPUTER ESSENTIALS  
Credits: 3 (F,S)  
This course introduces basic microcomputer operation. Concentration is placed on using a graphical user interface with currently popular operating system software as well as providing a basic introduction to word processing.

CS 110 INTRODUCTION TO COMPUTERS  
Credits: 3 *Tech Prep* (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.

CS 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.

CS 120 INTERNET ESSENTIALS *Tech Prep*  
Credits: 2 (F,S)  
Prerequisites: CS 110 or instructor approval  
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.

CS 126 NETWORKING BASICS (CCNA 1) *Tech Prep*  
Credits: 4 (F)  
Prerequisites: CS 110 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.

CS 140 PRESENTATION FUNDAMENTALS *Tech Prep*  
Credits: 1 (F,S)  
Prerequisite: CS 110  
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 and deliver presentations to groups.

CS 160 INTRODUCTION TO PROGRAMMING *Tech Prep*  
Credits: 3 (S)  
Prerequisites: CS 110, CS 166 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.

CS 166 COMPUTER OPERATING SYSTEMS  
Credits: 4 (F,S)  
Prerequisite: CS 110  
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.

CS 176 ROUTERS AND ROUTING BASICS *Tech Prep*  
(CCNA 2)  
Credits: 4 (S)  
Prerequisite: CS 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.

CS 205 DATABASE MANAGEMENT  
Credits: 3 (F,S)  
Prerequisite: CS 110  
This course covers expert level skills for the Microsoft Office User Specialist (MOUS) certification in Microsoft Access. Use of applications software focuses on data queries (both Query-By-Example and Structured Query Language), report and form generation, multiple file relationships, and interface techniques. Database administration and customization techniques will also be covered.

CS 208 FUNDAMENTALS OF UNIX  
Credits: 4 (F)  
Prerequisite: CS 110, CS 166  
Fundamental command-line features of the Unix environment will be studied, including file system navigation, file permissions, the vi text editor, command shells, and basic network use.

CS 211 NETWORK OPERATING SYSTEMS-WINDOWS  
Credits: 4 (S)  
Prerequisite: CS 166  
This course offers hands-on management using Microsoft Windows 2000 Server with continuing focus on problem solving and network administration activities such as security configuration and account set up. Evaluation of other network operating systems, client-server and peer-to-peer networks are included.

CS 214 CURRENT TOPICS IN NETWORK OPERATING SYSTEMS  
Credits: Variable (Sufficient Demand)  
Prerequisites: CS 126, CS 210, CS 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.

CS 217 COMPUTER GRAPHIC DESIGN  
Credits: 4 (F)  
Prerequisite: CS 110, CS 120, CS 229  
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

# COURSE DESCRIPTIONS

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.

CS 220 ELECTRONIC SPREADSHEETS *Tech Prep*  
Credits: 3 (F,S)

Prerequisite: CS 110

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 database management. The course content will emphasize mastery of spreadsheet concepts and applications and development of analytical thinking skills.

CS 226 SWITCHING BASICS AND INTERMEDIATE ROUTING (CCNA 3) *Tech Prep*  
Credits: 4 (F,S)

Prerequisite: CS 176

This course covers advanced router configurations with both lecture and hands-on activities. Topics include LAN switching, network management, 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).

CS 229 WEB PAGE CONSTRUCTION  
Credits: 3 (F,S)

Prerequisites: CS 110, CS 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.

CS 231 WEB PAGE DESIGN  
Credits: 3 (S)

Prerequisites: CS 229 or instructor approval

This course continues to utilize the skills developed in CS 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 the MSU-GF COT's student site, *The Scholar's Lounge*, will be implemented on one of the MSU-GF Internet Information Servers.

CS 250 WEB PAGE PROGRAMMING  
Credits: 3 (S)

Prerequisites: CS 229, CS 231

Corequisite: CS 160

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.

CS 255 FUNDAMENTALS OF NETWORK SECURITY  
Credits: 3 (F)

Prerequisites: CS 276, CCNA Techprep, or CCNA certification

The Fundamentals of Network Security course focuses on the overall security processes based on a security policy with emphasis on hands-on skills in the areas of secure perimeter, secure connectivity, security management, identity services, and intrusion detection. Students will be using state-of-the-art routing and security equipment such as the Cisco PIX Firewall. This course also leads toward the CompTIA Security+ certification and exams leading toward the Cisco Security Specialist I certification.

CS 270 PC TROUBLESHOOTING/MAINTENANCE I  
Credits: 3 (F)

Prerequisites: CS 110 or Instructor Approval

*Tech Prep*

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 the hardware section of the CompTIA A+Exam.

CS 271 PC TROUBLESHOOTING/MAINTENANCE II  
Credits: 3 (S)

Prerequisite: CS 270

This course is a continuation of CS 270, PC Troubleshooting/Maintenance I, and will include the installation and setup of the most popular microcomputer operating systems. The underlying topics will be presented as concepts, advanced through actual applications, and represented as they are implemented in a typical PC. The emphasis of this course is the operating system section of the CompTIA A+ exam. Upon completion of this course students will be encouraged to take the CompTIA A+ certification exam.

CS 273 FUNDAMENTALS OF SERVER MANAGEMENT AND ADMINISTRATION  
Credits: 3 (F)

Prerequisites: CS 270, CS 271

This class is designed to discuss the areas of server installation, configuration, upgrading, proactive maintenance, environment, troubleshooting, and disaster recovery. Discussions also include the design of server room including rack and equipment placement along with specialized server room equipment and procedures. This class can be used to prepare for the *CompTIA Server+ Certification exam*.

CS 275 COMPUTER END-USER SUPPORT  
Credits: 3 (S)

Prerequisites: CS 166, CS 270, COMM 135(US) 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 first hand experience with typical problems in the field.

CS 276 WAN TECHNOLOGIES (CCNA 4) *Tech Prep*  
Credits: 4 (S)

Prerequisite: CS 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, 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 student 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.

CS 278 ADVANCED ROUTING (CCNP 1)  
Credits: 4 (Sufficient Demand)

Prerequisite: CS 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 DESCRIPTIONS

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.

CS 279 REMOTE ACCESS (CCNP 2)  
Credits: 4 (Sufficient Demand)

Prerequisite: CS 276, CCNA TechPrep or CCNA certification  
Remote Access is the second of four courses leading to the Cisco Certified Network Professional (CCNP) certification. Remote Access is a lecture and hands-on course which introduces students to the implementation of Cisco routers in WAN application. The course focuses on the selection and implementation of appropriate Cisco IOS services required to build intranet remote access links. Students will develop skills with the specific WAN Technologies of analog dialup, ISDN BRI and PRI, Frame Relay, broadband, and VPN. After the completion of this class, students are encouraged to take the CCNP Remote Access certification exam (BCRAN) which is one of the certification exams leading to the CCNP certification.

CS 280 DESKTOP PUBLISHING *Tech Prep* (F)  
Credits: 3  
Prerequisite: CS 110

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 skill in using a desktop publishing software program by creating publications such as newsletters, brochures, advertisements, programs, business cards, and stationery.

CS 281 MULTILAYER SWITCHING (CCNP 3)  
Credits: 4 (Sufficient Demand)

Prerequisite: CS 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, Quos 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.

CS 282 NETWORK TROUBLESHOOTING (CCNP 4)  
Credits: 4 (Sufficient Demand)

Prerequisite: CS 278, CS 279 and CS 281  
Network Troubleshooting is the last of four courses leading to the Cisco Certified Network Professional (CCNP) certification. Network Troubleshooting is a lecture and hands-on course which teaches students techniques for troubleshooting various network problems. This course focuses on the documenting and baselining of networks, troubleshooting methodologies and tools, and OSI Layers 1 to 7 network diagnostics. After the completion of this class, students are encouraged to take the CCNP Network Troubleshooting certification exam (CIT) which is one of the certification exams leading to the CCNP certification.

CS 283 FUNDAMENTALS OF WIRELESS LANS  
Credits: 3 (Sufficient Demand)

Prerequisite: CS 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.

## DENTAL ASSISTANT

DA 115 HEAD, NECK AND ORAL ANATOMY  
Credits: 3 (F)

The majority of this course includes content in head, neck and dental anatomy. Oral tissue embryology, histology, and physiology is also introduced and general anatomical concepts are reviewed 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 AND  
COMPUTER APPLICATIONS  
Credits: 3 (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.

DA/DH 120 ORAL RADIOLOGY I  
Credits: 2 (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/DH 121 ORAL RADIOLOGY II  
Credits: 2 (S)

Prerequisite: DA 115, DA/DH 120  
Oral Radiology 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, and pedodontic 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.

DA 123 CHAIRSIDE 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. Occupational safety and infection control is emphasized.

DA 124 CHAIRSIDE II  
Credits: 4 (S)

Prerequisite: DA 123  
Chairside II is a continuation of Chairside I. 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.

# COURSE DESCRIPTIONS

DA 150 PREVENTIVE DENTISTRY  
Credits: 3 (S)  
Prerequisite: DA 115 and DA 123  
The Preventive Dentistry course is the study of the oral plaque diseases and the prevention of these diseases. Special sections include etiology and theory of plaque disease, oral hygiene techniques and instruction, systemic and topical fluoride, nutrition, and patient education and motivation. Students also complete an in-depth preventive patient project as part of the requirements for this course.

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 clinical procedures setting.

DA 172 DENTAL SCIENCE  
Credits: 3 (S)  
Prerequisite: DA 115  
This course includes an introduction to four specific science based subjects: microbiology; oral pathology; pharmacology; and medical and dental emergencies. Reviews of the metric system and dosage calculation are conducted for better understanding of the pharmacology component. Emphasis is placed on classification and transmission of microorganisms, drug classifications and interactions, prescription writing, identifications of diseases and other abnormalities of the oral cavity and the management of medical and dental emergencies in the dental office.

DA 185 CLINICAL SEMINAR  
Credits: 1 (SU)  
Prerequisite: Program director approval required to enroll.  
Clinical Office Seminar introduces students to job search strategies, preparation of personal resumes, cover and follow-up letters, interviewing techniques and completing exit interviews. Assignments for clinical rotations are made to the students in this course. Special review attention is paid to infection control and current OSHA standards and concepts for successfully sitting for the national Certified Dental Assistant exam.

DA 190 CLINICAL OFFICE PRACTICE  
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 into 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.

## INTERIOR DESIGN

DE 161(IA) INTRODUCTION TO DESIGN *Tech Prep*  
Credits: 3 (1st year-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 *Tech Prep*  
Credits: 3 (1st year-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.

DE 163 PRESENTATION DRAWING  
Credits: 3 (1st year-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(IA) HISTORIC INTERIORS  
Credits: 3 (1st year-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 (1st year-S)  
Prerequisite: DE 164(IA)  
This course is a continuation of the study of the development of the interior environment from the 19th century to the present. Difference in the basic philosophy between 19th and 20th century design is emphasized.

DE 166 TEXTILES AND INTERIOR FINISHES  
Credits: 3 (1st year-F)  
Course includes the study of textiles used by interior designers, including their fiber content, yarn type, characteristics, construction, selection, cost, performance and maintenance. Students will gain familiarity with a wide range of textile products used in both residential and commercial interiors.

DE 168 SPACE PLANNING  
Credits: 3 (1st year-S)  
Prerequisites: DE 161(IA), 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.

DE 261 FIELD STUDY  
Credits: 3 (Sufficient Demand-F)  
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 (2nd year-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 (Sufficient Demand/2nd year-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 (1st year-S)  
Prerequisite: DE 161(IA)  
This course is an introductory study of color theory, including human response to color. It covers the effects of various sources of lighting on

# COURSE DESCRIPTIONS

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 (Sufficient Demand/2nd year-S)

Prerequisite: Completion of all 100-level technical courses, DE 261 264.  
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.

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 (Sufficient Demand)

Prerequisite: Completion of all 100-level technical courses. DE 262  
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, project drawing and documentation will also be covered.

DE 271 KITCHEN AND BATH II  
Credits: 3 (Sufficient Demand)

Prerequisite: DE 270  
This studio course is a continuation of Kitchen and Bath I, with further exploration into products, advanced design solutions, green design, and Universal access. Students will enter the annual National Kitchen and Bath Student design Competition as a required part of the course.

## DENTAL HYGIENE

DH 101 INTRODUCTION TO DENTAL HYGIENE/PRECLINIC  
Credits: 2 (F)

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 (F)

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 (F)

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 (F)

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 120 ORAL RADIOLOGY I  
Credits: 2 (F)

This course is the first of a series of two courses. Content in this course includes the history of oral radiography, radiation physics, x-ray equipment and supplies, radiation, health and safety, quality assurance and infection control, landmark identification and mounting, and darkroom procedures. It also includes radiograph interpretation and identification and correction of faulty radiographs. Selected geometric topics are incorporated in this course and are continued through Oral Radiology II.

DH 121 ORAL RADIOLOGY II  
Credits: 2 (S)

Prerequisite: DH 115, DH 120  
Oral Radiology II includes both didactic and laboratory instruction. Content in this course emphasizes intraoral and extraoral radiographic techniques. A student satisfies the practical portion of this course by successfully performing both paralleling and bisecting intraoral periapical techniques, horizontal, vertical, and pedodontic bitewing radiographs, and proper occlusal and panoramic exposure. Other content sections include radiography for special patients and patient education. Students are expected to obtain their own prescription patients for final full mouth series. Dental assistant students will be prepared to sit for the national oral radiology certification exam through the Dental Assisting National Board after successful completion of this course.

DH 130 DENTAL MATERIALS  
Credits: 2 (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 (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 maintaining clinical records of clinical procedures.

DH 151 CLINICAL DENTAL HYGIENE PRACTICE I  
Credits: 3 (S)

Practice in beginning instrumentation and patient assessment in providing an oral prophylaxis, to accompany DH 150.

DH 160 PERIODONTOLOGY I  
Credits: 3 (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 hygienist's 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 EMBRYOLOGY AND HISTOLOGY  
Credits: 2 (S)

A study of tissue morphology, embryonic development, and histologic features of the face and oral cavity.

DH 201 PERIODONTOLOGY II  
Credits: 2 (SU)

The advanced study of periodontology with special emphasis on various types of periodontal therapy and the rationale behind their uses, including information on surgical procedures and medications used to decrease periodontal pocket depth. This course correlates theory with clinical activities in DH 211.

# COURSE DESCRIPTIONS

DH 210 CLINICAL DENTAL HYGIENE THEORY II  
Credits: 2 (SU)

A continuation of DH 150, this course increases the emphasis on the principles of instrumentation in periodontal therapy. Topics to include ultrasonic scaling and air polishing. Effective ergonomic principles will be reviewed. Theory background is used to support activities in DH 211.

DH 211 CLINICAL DENTAL HYGIENE PRACTICE II  
Credits: 3 (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 ORAL/PATHOLGY  
Credits: 3 (F)

Fundamentals of pathology including the inflammatory process, tumor development, metabolic pathways, and developmental disturbances. An emphasis on the study of oral diseases and recognition of those conditions will be made. Students will utilize this information during direct observations of patients and viewing radiographs in clinical practice.

DH 220 DENTAL NUTRITION HEALTH  
Credits: 3 (F)

Prerequisite: BIO 213 or CHEM 150(IN)

Note: Enrollment limited to hygiene students.

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.

DH 230 COMMUNITY DENTAL HEALTH AND EDUCATION

Credits: 2 (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 (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 & LAB

Credits: 2 (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 specific related needs of patients are included, incorporating pain control methods, including nitrous oxide, sedation, and general anesthesia. Laboratory sessions are integrated with didactic material to develop competency in administering local anesthetic.

DH 241 GERONTOLOGY & SPECIAL NEEDS PATIENTS

Credits: 2 (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 (F)

A continuation of DH 210, this course expands beyond the basic concepts of dental hygiene theory, including exposure to more difficult oral conditions, specialized patient communication, and advanced treatment planning. Topics include periodontal debridement, subgingival irrigation, dental specialties, the role of the dental hygienist, hypersensitivity and chemotherapeutic agents in the treatment of periodontal diseases, and review of scientific literature. Theory background is used to support activities in DH 251

DH 251 CLINICAL DENTAL HYGIENE PRACTICE III  
Credits: 4 (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 (F)

A continuation of DH 250, this course includes advanced dental theory increasing the student's knowledge of the profession. An overview of the dental specialties and the role of the dental hygienist in those specialties will be covered. Theory background is used to support activities in DH 281.

DH 281 CLINICAL DENTAL HYGIENE PRACTICE IV  
Credits: 4 (S)

A continuation of DH 251, clinical activities include all aspects of previous training at increased skill levels. Emphasis is placed on periodontal maintenance and on treating clients with moderate to advanced/refractory periodontal disease. Students simulate private practice and mock board activities. This course is provided in conjunction with DH 280.

## DRAFTING

DRFT 131 TECHNICAL GRAPHICS I *Tech Prep*  
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 *Tech Prep*  
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 with blue line prints will be developed.

# COURSE DESCRIPTIONS

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 mechanically produced.

DRFT 244 TOPOGRAPHIC MAPPING AND GIS APPLICATIONS  
Credits 3 (S)

Prerequisite: DRFT 156, CS 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 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 to paint type printers.

## ECONOMICS

ECON 101(IS) PRINCIPLES OF ECONOMICS  
Credits: 3 (Sufficient Demand)

This course acquaints students with the theoretical foundation for economic thinking, planning, and policy. Topics include economic policies, supply and demand, monetary and fiscal policies and practice, trade and trade deficits, monopolies, government influence, and measuring the performance of the economy.

ECON 102(IS) ECONOMICS I (MACROECONOMICS)  
Credits: 3 (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(IS) ECONOMICS II (MICROECONOMICS)  
Credits: 3 (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 210 EDUCATIONAL PSYCHOLOGY AND HUMAN DEVELOPMENT  
Credits: 3 (F)

This course explores the physical, psychological, and cognitive development in children with an emphasis on brain-based research, stages of learning, and factors influencing the learning process.

EDUC 215 INTRODUCTION TO EDUCATION FOUNDATIONS  
Credits: 3 (F, S, SU)

American education is explored with an emphasis on the teacher's role inside and outside the school's role in the community. Various educational issues will be examined, including the purposes of public education in America; the interplay between the public and its schools; the interrelationship of curriculum, instruction, classroom management, and school culture; and the challenges of responding effectively to diversity in

the school setting and the community. Field experience in the school setting observing and assisting a classroom teacher is included in this course.

EDUC 240 INSTRUCTIONAL TECHNOLOGY  
Credits: 3 (S)

Prerequisite: CS 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.

## EDUCATIONAL PSYCHOLOGY

EDPY 215 DESIGNING LEARNING ENVIRONMENT  
Credits: 3 (F)

This course will focus on the skills necessary to design a classroom environment where students will learn most effectively. Students will participate in lab experience, which will provide an opportunity for working with students in a on-on-one setting.

## ELECTRICAL, ELECTRONICS & ENGINEERING TECHNOLOGY

EET 110 ELECTRONICS SURVEY I *Tech Prep*  
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. This course may fulfill a General Education requirement.

## EMERGENCY MEDICAL SERVICES

EMS 102 FUNDAMENTALS OF ADVANCED CARE  
Credits: 3 (Sufficient Demand)

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 (Sufficient Demand)

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 (Sufficient Demand)

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 (Sufficient Demand)

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).

# COURSE DESCRIPTIONS

EMS 120 EMT-PARAMEDIC I/II CLINICAL AND FIELD INTERNSHIP

Credits: 3 (Sufficient Demand)  
 Prerequisite: Instructor approval required, EMS 110, 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 (Sufficient Demand)

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 (Sufficient Demand)

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 142 EMERGENCY MEDICAL TECHNICIAN INTERMEDIATE (EMT-I)  
 Credits: 5 (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 (Sufficient Demand)

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 (Sufficient Demand)

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. The 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 (Sufficient Demand)

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 205 EMT-PARAMEDIC III  
 Credits: 3 (Sufficient Demand)

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 prehospital arena.

EMS 210 EMT-PARAMEDIC III/IV SKILLS LAB  
 Credits: 2 (Sufficient Demand)

Prerequisite: Successful completion of Paramedic I/II or instructor approval  
 Corequisite: 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 megacode imperatives. Students will complete this laboratory section with preparation for the National Registry Certification Examination.

EMS 220 EMT-PARAMEDIC III/IV CLINICAL AND FIELD INTERNSHIP  
 Credits: 4 (Sufficient Demand)

Prerequisite: EMS 205, 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 225 EMT-PARAMEDIC IV  
 Credits: 3 (Sufficient Demand)

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.

## ENGLISH

ENGL 040 WRITING  
 Credits: 3 (F,S,SU)

Pass/Fail Basis  
 As an individualized approach to the understanding and use of basic elements necessary to the appropriate structuring of sentences and paragraphs, this course includes capitalization, punctuation, and word form and sentence structure.

# COURSE DESCRIPTIONS

ENGL 050 SPELLING & VOCABULARY  
Credits: 3 (F,S,SU)  
Pass/Fail Basis

This individualized approach introduces specific techniques for spelling by visual memory, phonics, guidelines, or a combination of the three. Vocabulary knowledge and usage are expanded through the study of roots and affixes and/or specific vocationally relevant word lists.

ENGL 101 FRESHMAN SEMINAR: THE MISSOURI RIVER  
Credits: 3 (F,S,SU)

This course serves as an introduction to college level critical thinking based on the central theme of the Missouri River. Students will experience the rich heritage of the river that travels through our midst. A cross disciplinary view of the culture, biology, history, and literature that springs from the Missouri gives us the opportunity to explore our past, present and future. Individual participation is fostered by the small class size.

ENGL 114(IH) INTRO TO LITERATURE  
Credits: 3 (F,S, SU)

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 120 INTRODUCTION TO COMPOSITION  
Credits: 3 (F,S,SU)

Prerequisite: Qualifying admission assessment score  
Introduction to Composition offers experience with sentence construction and paragraph development and provides a review and reinforcement of principles of English grammar and punctuation. Its goal is to develop confidence in the ability to write clear and effective sentences and paragraphs.

ENGL 121(W) COMPOSITION I  
Credits: 3 (F,S,SU)

Prerequisite: ENGL 120 with a grade of "C" or higher or qualifying admission 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 level is assumed.

ENGL 122(W)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 COMMUNICATIONS  
Credits: 3 (F,S, alternate SU)

Prerequisites: ENGL 120 or ENGL 121(W), 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 127 TECHNICAL REPORT WRITING  
Credits: Variable (Sufficient Demand)

Prerequisite: Instructor approval  
Technical Report Writing may be tailored to individual and program needs. Examples of projects include instructions, equipment descriptions, feasibility studies, proposals, and manuals. Technical style, format, and graphics may be included. Course is taught by computer assisted instruction.

ENGL 175 STUDENT NEWSPAPER  
Credits: 1-3 (F,S)

Prerequisites: ENGL 120 or higher, placement into ENGL 121(W), or instructor approval  
Students will engage in the reporting and production of the student newspaper, *Roaring Winds*.

ENGL 210HG WORLD LITERATURE I (ANCIENT THROUGH RENAISSANCE)  
Credits: 3 (F)

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/tone, character, language/figures of speech, symbolism, and theme. Competence in basic reading and writing skills is assumed.

ENGL 211(IH) WORLD LITERATURE II (17TH CENTURY TO PRESENT)  
Credits: 3 (S)

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/tone, character, language/figures of speech, symbolism, and theme. Competence in basic reading and writing skills is assumed.

ENGL 214(D) LITERATURE OF THE WEST  
Credits: 3 (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(IA) CREATIVE WRITING  
Credits: 3 (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 228 STRATEGIES OF BUSINESS COMMUNICATIONS  
Credits: 3 (F,S)

Prerequisite: ENGL 121(W)  
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

# COURSE DESCRIPTIONS

BUS 260 and ENGL 228 in their last semester. On-campus offering of ENGL 228 is recommended for Entrepreneurship students.

## FIRE & RESCUE TECHNOLOGY

FRS 101 FIREFIGHTER I  
Credits: 5 (Sufficient Demand)  
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 (Sufficient Demand)  
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 112 FIRE INSPECTION AND INVESTIGATION  
Credits: 3 (Sufficient Demand)  
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 learning to an actual situation or problem.

FRS 200 SPECIAL PROJECTS  
Credits: 1 (Sufficient Demand)  
Special projects are required to fulfill the completion of FRS 112, 245, 250, 265, 275, 280 and 285. The intent, nature, scope and duration of the project will be determined by the advisor of the Fire and Rescue Technology program.

FRS 245 FIRE SERVICE TRAINING AND SAFETY EDUCATION  
Credits: 3 (Sufficient Demand)  
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 (Sufficient Demand)  
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. Students will complete an approved project as a demonstration of learning.

FRS 265 INCIDENT MANAGEMENT AND SAFETY  
Credits: 3 (Sufficient Demand)  
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 275 TACTICAL OPERATIONS  
Credits: 3 (Sufficient Demand)  
This course prepares the student to conduct pre-fire planning, size up, and make tactical decisions for defensive and offensive fireground operations.

FRS 280 COMPANY MANAGEMENT  
Credits: 3 (Sufficient Demand)  
This course provides the student with the basic skills needed to perform effectively as a leader in the fire and rescue service environment. Subjects addressed include: problem solving, assessing employee needs, decision making, ethics, delegation, and managing the multiple roles of the company officer. Students will have the opportunity to demonstrate their learning through completion of an approved project.

FRS 285 HAZARDOUS MATERIALS  
Credits: 2 (Sufficient Demand)  
The student will learn to recognize the difference between normal fire department operations, hazardous materials operations, and the resources required to successfully mitigate an incident.

## GEOGRAPHY

GEOG 105(D) GENERAL GEOGRAPHY  
Credits: 3 (Sufficient Demand)  
This course presents the fundamental concepts necessary for geographic thinking and introduces the student to the cultural and physical elements of geography that influence and identify various areas of the world. Land formations, weather and climate patterns, regional contrasts, and interrelationships are also studied.

## HEALTH AND HUMAN DEVELOPMENT

HHD 128 MYSTERY MADNESS  
Credit: 1  
Pass/Fail Basis  
This course encourages reading for fun while developing critical thinking skills. Students will experience classic and modern mystery fiction in short and/or novel form.

HHD 128 DANCE, SOCIAL  
Credit: 1  
Pass/Fail Basis  
Traditional and popular styles of ballroom dancing, including waltz, east coast swing, fox trot, cha cha, and American tango are introduced.

HHD 145 FLY FISHING  
Credit: 1  
Pass/Fail Basis  
Students are presented the basic skills and knowledge of fly fishing including: casting, entomology, habitat, stream ethics, tackle, tactics, and strategy.

HHD 147 GOLF FUNDAMENTALS  
Credit: 1  
Pass/Fail Basis  
Fundamental skills, equipment, rules, and etiquette of golf are presented.

HHD 151 OUTDOOR WINTER SKILLS AND SAFETY  
Credit: 1  
Pass/Fail Basis  
This course exposes students to basic skills and equipment necessary for winter experiences in the Montana backcountry. Safety will be a course emphasis.

HHD 152 OUTDOOR SUMMER/EARLY FALL RECREATION AND SAFETY SKILLS  
Credit: 1  
Pass/Fail Basis  
This course exposes students to basic skills and equipment necessary for summer/early fall experiences in the Montana backcountry. Safety will be a course emphasis.

# COURSE DESCRIPTIONS

## HEALTH INFORMATION TECHNOLOGY

HI 132 HEALTH DATA CONTENT AND STRUCTURE  
Credits: 3 (F)

Prerequisites or Co-requisites: AH 185, BIO 108 (or equivalent), CS 110  
This course provides orientation to the health information department and its organization interrelationships in healthcare facilities. This course also covers that 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 include real health records and exposure to health record management software.

HI 150 PROFESSIONAL PRACTICE EXPERIENCE CODING  
Credits: 2 (F)

Prerequisite: Completion of preceding courses in HICS sequence and approval of program director.

Students in this course will gain professional practice experience applying ICD-9-CM and CPT coding skills. Students create written records of their experiences and will complete assigned projects as indicated in their Professional Practice Experience Manual. HICS students only. 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 156 LEGAL AND REGULATORY ASPECTS OF HEALTHCARE  
Credits: 2 (S)

Prerequisites or Co-requisites: AH 185, BIO 108 (or equivalent)  
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 achieved using real health records, case studies, and scenarios.

HI 210 STATISTICAL HEALTH INFORMATICS  
Credits: 4 (S)

Prerequisites of Co-requisites: AH 101, AH 194, AH 201, HI 132, HI 156, OO 111, CS 205  
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, along with database analysis, case-mix systems, software, systems analysis, networks, and imaging will also be covered. Application will include health record management software.

HI 225 HEALTH INFORMATION MANAGEMENT  
Credits: 3 (S)  
Prerequisites or Co-requisites: AH 101, AH 194, AH 201, HI 132, OO 111, CS 205

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 (S)

Prerequisites or Co-requisites: AH 101, AH 194, AH 201, HI 132, HI 245 (HIT degree only), CS 110 or CS 205 or approval by the program director an instructor.

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 are an expectation.

HI 237 CPT CODING  
Credits: 3 (SU)

Prerequisites: AH 101, AH 194, AH 201, HI 132, HI 236, CS 110 or CS 205 or approval by the program director and instructor.

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, knowledge of basic use of applicable coding books are an expectation.

HI 240 CLINICAL QUALITY ASSESSMENT  
Credits: 3 (S)

Prerequisite: AH 101, AH 194, AH 201, HI 132, OO 111, CS 205

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 through the application of multiple display (graphing) techniques and through health record management software.

HI 245 PROFESSIONAL PRACTICE EXPERIENCE I  
Credits: 2 (S)

Prerequisite: Completion or concurrent enrollment of all courses in first 4 semesters of the HIT program and approval by the program director.

Students in this course gain professional practice experience in healthcare facility health information department including practice of skills in record assemble, analysis, abstraction, confidentiality, retention, and retrieval. Students create written records of their experiences and complete all projects in the Professional Practice Experience I Manual. This course is schedule for 80 hours of off campus. (Each student will be responsible for her/his own transportation to and from the healthcare facility and any necessary living expenses.)

HI 250 ADVANCED CODING  
Credits: 2 (F)

Prerequisite: HI 236, HI 237, OO 111, CS 110, or CS 205 or approval by the program director and instructor.

Upon beginning this course, basic understanding of the CPT, ICD-CM, and HCPCS 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, knowledge of basic use of applicable coding books are an expectation.

HI 290 PROFESSIONAL PRACTICE EXPERIENCE II  
Credits: 3 (SU)

Prerequisite: Completion of all courses in first 5 semesters of program and approval by the program director and instructor.

Students gain professional practice experience in a healthcare facility health information department by applying skills in coding, observe management and supervisory situations, and by completing all projects in the Professional Practice Experience II Manual and a written record of the course. This class is scheduled for 120 hours off campus for three weeks. Each student will be responsible for her/his own transportation to and from the healthcare facility and any necessary living expenses.

# COURSE DESCRIPTIONS

## HI 292 TOPICS IN HEALTH INFORMATION TECHNOLOGY

Credits: 3 (SU)

Prerequisite or Co-requisites: HI 290 and/or completion of all courses in first 5 semesters of the HIT program

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 (TBA)

Suggested Prerequisites: CS 110, HI 210, or completion of all courses in the first 5 semesters of the HIT program and/or permission from the instructor and program director.

Note: This course is not part of the HIT two-year degree curriculum. This course is for preparation in degree transfer toward a degree in healthcare/medical informatics.

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 done through the use of health record management software and word processing application programs.

## HI 296 PROCEDURE AND PRACTICES OF HEALTH CARE INFORMATICS

Credits: 3 (TBA)

Prerequisite/Co-requisite: HI 295, HI 210, CS 205, HI 240 or completion of all courses in the first 5 semesters of the HIT program and/or permissions from the instructor and program director.

Note: This course is not part of the HIT two-year degree curriculum. This course is for preparation in degree transfer toward a degree in healthcare/medical informatics.

Introduces the student to common procedures and practices found within a variety of health care settings and the information systems that support such procedures/practices. Topics including clinical records management, scheduling, order entry, diagnostic testing and results reporting, inventory control, patient accounting, as well as an overview of typical patient care needs. Note: Students that do not meet the prerequisite requirements for this course or do not have permission from the instructor to enroll should drop this course immediately

## HI 297 EVALUATION OF HEALTH CARE SYSTEMS

Credits: 2 (TBA)

Prerequisites: HI 295, HI 296, or completion of all courses in the first 5 semesters of the HIT program and/or permission from the instructor and program director.

Note: This course is not part of the HIT two-year degree curriculum. This course is for preparation in degree transfer toward a degree in healthcare/medical informatics.

This multi-disciplinary course will focus on the process of evaluating and choosing a health information system. The course will assist the student to identify the critical needs, which the health information system is to address. Different methods of evaluation will be presented and discussed in terms of how they would apply to health information systems. The evaluation process will begin with identifying the needs of three concepts that are fundamental to the field of informatics – data, information and knowledge. The evaluation process will identify the needs of the organization, and present them in an organized manner so those vendors can address the identified needs followed by mechanisms for evaluation. Note: Students that do not meet the prerequisite requirements for this course or do

not have permission from the instructor to enroll should drop the course immediately.

## HISTORY

### HIST 103(HI) 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(HI) HISTORY OF THE UNITED STATES II (1865 TO PRESENT)

Credits: 3 (S)

This course will be a survey of American history since the time of 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(HI) 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(HI) 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 170(HI) HISTORY OF WESTERN UNITED STATES

Credits: 3 (Sufficient Demand)

This course explores the conquest and settlement of the trans-Mississippi West. Emphasis is placed on the myth and realities of the West, economic, social, and political developments, environmental issues, race and ethnic diversity, and the West in the national and global arenas.

### HIST 210(HI) MONTANA HISTORY

Credits: 3 (Sufficient Demand)

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 (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.

### HIST 274(HI) HISTORY OF CHINA

Credits: 3 (Sufficient Demand)

China has the longest continuous history of any modern nation. This course will attempt to explore China's longevity by exploring its intellectual and cultural traditions and its recent historical development.

### HIST 284(HI) HISTORY OF THE MIDDLE EAST

Credits: 3 (Sufficient Demand)

This course examines the history of the Middle East from the 6th century B.C.E. to the present. The course will examine the diverse cultural nature of

# COURSE DESCRIPTIONS

the Middle East as well as analyze the political, social, economic and strategic factors that have marked this area as a focal point for mankind.

## HUMAN DEVELOPMENT - HEALTH

HDHL 106 DRUG & HEALTH ISSUES FOR EDUCATORS  
Credits: 3 (F)  
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.

## HUMANITIES

HUM 242(RH) GENDER AND EQUALITY  
Credits: 3  
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(D) AMERICAN CULTURAL VALUES  
Credits: 3  
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.

## INTERNSHIP

---- 299 INTERNSHIP IN <INSERT DEGREE AREA  
NAME>  
Credits: 1-6 (Sufficient Demand)  
Prerequisite: Must be in final semester of degree area, consent of instructor, and approval of department head  
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.

## LIBRARY

LIB 121 INTRODUCTION TO INFORMATION  
RESOURCES  
Credits: 1 (Sufficient Demand)  
This course provides an introduction to effective use of library resources and services. The course will focus on information retrieval using library-based electronic resources accessible online through the MSU-Great Falls Campus Library web site. Evaluation of information and citing sources will also be covered. No co-requisite is required but students may find this course more relevant if it is taken in conjunction with a course requiring substantial research.

## 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 103 INTRODUCTORY ALGEBRA *Tech Prep*  
Credits: 4 (F,S, SU)  
Prerequisite: Qualifying admission 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, scientific notation, polynomials, factoring trinomials, solving equations, systems of equations, and graphing quadratic equations. 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 *Tech Prep* (F,S)  
Prerequisite: MATH 103 or qualifying admission 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)  
Prerequisite: MATH 101 or qualifying admission 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(Q) MATH FOR ELEMENTARY TEACHERS II  
Credits: 3 (F,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(Q) PRECALCULUS ALGEBRA *Tech Prep*  
Credits: 4 (F,S)  
Prerequisite: MATH 108 with a grade of "B" or higher or qualifying admission 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(Q) PRECALCULUS TRIGONOMETRY *Tech Prep*  
Credits: 3 (S)  
Prerequisite: MATH 108 with a grade of "B" or higher or qualifying admission 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(Q) MATH FOR LIBERAL ARTS  
Credits: 3 (F,S)  
Prerequisite: MATH 103 with a grade of "B" or higher or qualifying admission 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.

# COURSE DESCRIPTIONS

MATH 161(Q) ALGEBRA WITH SCIENCE APPLICATIONS  
Credits: 4 (F,S)

Prerequisite: MATH 103 with a grade of "B" or better or qualifying admission 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(Q) CALCULUS I  
Credits: 4 (F)

Prerequisites: MATH 130, MATH 131 or qualifying admission 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(Q) 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 200 MATH SPECIAL PROJECTS  
Credits: Variable (Sufficient Demand)  
Special projects and independent studies are available for students by special arrangements within the General Education Department.

MATH 216(Q) BASIC STATISTICS  
Credits: 3 (F,S)

Prerequisite: MATH 103 or qualifying admission 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.

MATH 217(Q) 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.

## MANUFACTURING

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 100(D) 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. Students must successfully complete this course prior to being accepted into the Interpreting and Transliterating Preparation Program.

ML 101 ELEMENTARY SPANISH I  
Credits: 4 (F)

This is an elementary level course designed to develop functional proficiency in spoken and written Spanish with emphases on communication skills and appreciation of Hispanic culture.

ML 102(D) ELEMENTARY SPANISH II  
Credits: 4 (S)

This course continues to progressively develop topics introduced in ML 101.

ML 110 RUSSIAN CULTURE & LANGUAGE  
Credits: 3 (Sufficient Demand)

This introductory course is designed to motivate students to learn conversational Russian. Appealing to one's natural curiosity, the course involves learning and practicing the alphabet, taking a Russian name, understanding Russian customs and manners, and learning vocabulary for everyday activities. Students will be asked to consider comparisons of their own culture to that of the Russian culture.

ML 200(D) AMERICAN SIGN LANGUAGE INTERMEDIATE  
Credits: 3 (Sufficient Demand)

Prerequisite: ML 100

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.

ML 219(D) INTERMEDIATE SPANISH  
Credits: 3 (Sufficient Demand)

Prerequisite: ML 102, or consent of Instructor

This is a comprehensive review and systematic expansion of basic structures presented in Spanish 101-102. Emphases is place on communicative competence, vocabulary acquisition and expansion of cultural knowledge through videos and readings that include short literary texts and journalist writings. Increased emphasis on written communication.

ML 220(D) SPANISH LANGUAGE AND CULTURE  
Credits: 3 (Sufficient Demand)

Prerequisite: ML 219

This class, designed to follow the third semester review of grammar and basic skills, is taught through a series of carefully selected readings in Spanish culture, civilization and literature which will provide the basis for writing essays and reports and developing advanced language skills. Prerequisite ML 219 or consent of instructor

## MEDICAL ASSISTANT

MO 138 CLINICAL PROCEDURES I  
Credits: 3 (F)

Prerequisite: 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 (F)

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.

# COURSE DESCRIPTIONS

MO 241 CLINICAL REVIEW  
Credits: 1 (S)  
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 (S)  
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 102(IA) FUNDAMENTALS OF MUSIC  
Credits: 3 (Sufficient Demand)  
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 153 GUITAR IN CLASS 1  
Credits: 1 (Sufficient Demand)  
This course provides basic instruction in techniques of chord and classical guitar, music reading, and performance.

MUS 210(IA) MUSIC APPRECIATION  
Credits: 3 (Sufficient Demand)  
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(IA) AMERICAN MUSIC  
Credits: 3 (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(IA) WORLD MUSIC  
Credits: 3 (Sufficient Demand)  
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.

## OFFICE TECHNOLOGY

OO 107 KEYBOARDING BASICS *Tech Prep*  
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 *Tech Prep*  
Credits: 3 (F,S)  
Prerequisites: OO 107 (or challenge) OO 265/266, or concurrent enrollment  
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)  
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.

OO 173 COMPUTER CALCULATORS *Tech Prep*  
Credits: 1 (1/2 semester) (F,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 I  
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 181 LEGAL STUDIES II  
Credits: 4 (S)  
Prerequisite: OO 180

Students continue their introduction to the legal field through the study of family law, administrative agencies, legal research, real estate, estate planning and probate, contracts, torts, bankruptcy, and business organizations. Study also includes related legal documents and their format. This course is also designed to equip the 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 (F, S, SU)

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.

# COURSE DESCRIPTIONS

## OO 221 INTERVIEWING FOR JOBS

Credits: 1 (F, S, SU)

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 255 MEDICAL TRANSCRIPTION I

Credits: 3 (F, S)

Prerequisite: AH 185, CS 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 (S, SU)

Prerequisites: OO 255

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 forms in medical use.

## OO 260 MACHINE TRANSCRIPTION

Credits: 3 (S)

Prerequisite: CS 110, OO 265, 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 *Tech Prep*

Credits: 3 (F,S)

Prerequisite: CS 110, OO 107, or consent of faculty

Corel Wordperfect 8 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 *Tech Prep*

Credits: 3 (F,S)

Prerequisite: CS 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. Competencies in transcribing, document formatting, punctuating, spelling and utilizing legal terminology are important objectives of this course. Advanced word processing applications are emphasized.

## OO 290 INSURANCE INTERNSHIP

Credits: 3 (S)

Prerequisites: Satisfactory completion of all courses in the program and/or consent of the Program director.

Students will gain practical experience in insurance billing by working in a variety of medical facilities where they will have the opportunity to apply

concepts studied in the medical billing curriculum. Facilities will include dental and medical offices, health insurance companies, hospitals, and independent billing companies.

## OO 295 ADMINISTRATIVE OFFICE PROCEDURES

Credits: 3 (S)

Prerequisites: OO 108, OO 265/266, or concurrent

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 processing, postal services, memory devices, 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 may use any word processing software. Microsoft Outlook features including e-mail, address book, contacts, calendar, and tasks are introduced.

## PHILOSOPHY

### PHIL 132(IH) PROBLEMS IN 20TH CENTURY THINKING

Credits: 3 (S)

This course is a survey of twentieth century philosophical thought emphasizing three traditions: analytic or Anglo-American, phenomenology, pragmatism and post-modernism. Philosophy within this course will include the historical as well as the problematic sequence.

### PHIL 232(IH) BASIC ETHICS

Credits: 3 (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(IH) MEDICAL ETHICS

Credits: 3 (S)

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 110(IN) SURVEY OF NATURAL SCIENCES

Credits: 4 (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(IN) FUNDAMENTALS OF PHYSICAL

SCIENCE W/ LAB *Tech Prep*

Credits: 4 (Sufficient Demand)

This course is an introduction to the fundamental behavior of matter and energy. It is divided into two sections: physics and chemistry. Physics topics include: motion and patterns of motion; energy, heat and temperature; wave motions and sound; electricity and light. Chemistry topics covered are atomic structure; elements and the Periodic Table; compounds and chemical change, chemical formulas and equations; water and solutions; and some organic and nuclear chemistry. No prior work in physics or chemistry is assumed for this course.

# COURSE DESCRIPTIONS

PHYS 180 NATURAL HISTORY OF WESTERN UNITED STATES

Credits: 3 (Sufficient Demand)  
This course examines natural phenomena to enhance understanding of geographic features characteristic of the state, such as its vast plains, river valleys, mountain ranges, formations, coastal areas and their impact upon the evolution of life within these geographic areas.

## POLITICAL SCIENCE

POLS 206(IS) US GOVERNMENT

Credits: 3  
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.

POLS 208 STATE & LOCAL GOVERNMENT

Credits: 3  
This course seeks to understand and demonstrate the operation and structure of state, tribal, and local governments and how the federal government impacts them all.

## PRACTICAL NURSE

PN 131 MEDICAL/SURGICAL NURSING

Credits: 13 (S)  
Prerequisite: Successful completion of the first semester of the Practical Nursing Program and instructor approval

**Note: For Fall entry students only**  
This course guides students through the nursing process when planning nursing care for common disease of the following systems: urinary (including fluids and electrolytes), endocrine, integumentary, neurological, sensory, gastrointestinal, respiratory, cardiovascular, blood disorders, cancer and sensory. The pathophysiology, etiology, signs and symptoms, treatment modalities, pharmacology, physical and psychosocial aspects as well as bioethical, pain assessment, cultural diversity, and discharge planning are included with each disease process. The clinical component provides advancement from in-depth to complex nursing skills, knowledge, and attitudes necessary to care for the acutely ill patient.

PN 132 MEDICAL/SURGICAL NURSING I

Credits: 6 (SU)  
Prerequisite: Successful completion of the first semester of the Practical Nursing Program and instructor approval

**Note: For Spring entry students only**  
Students are guided through the nursing process in planning nursing care for common disease of the following systems: gastrointestinal, respiratory and cardiovascular. Patients with cancer and blood disorders are also included. Bioethical, pain assessment, cultural diversity and grief and loss are encompassed in all areas. The pathophysiology, etiology, signs and symptoms, treatment modalities, pharmacology, physical and psychosocial aspects and discharge planning are included in each disease process. The clinical component provides more in-depth nursing skills, knowledge and attitudes necessary to care for the acutely ill patient.

PN 133 MEDICAL/SURGICAL NURSING II

Credits: 7 (F)  
Prerequisite: Successful completion of the second semester of the Practical Nursing Program, Medical/Surgical I and instructor approval

**Note: For Spring entry students only**  
Students are guided through the nursing process in planning nursing care for common diseases of the following systems: urinary (including fluids and electrolytes), endocrine, integumentary, neurological and sensory. The pathophysiology, etiology, signs and symptoms, treatment modalities, pharmacology and physical and psychosocial aspects as well as bioethical, pain assessment, cultural diversity, grief and loss and discharge planning are included with each disease process. The clinical component provides

advance to more complex nursing skills, knowledge and attitudes necessary to care for the acutely ill patient.

PN 141 PERSPECTIVES OF NURSING

Credits: 1 (F,S)

Prerequisite: Instructor approval and successful completion of the prerequisites

This course includes orientation to nursing, with emphasis on the history of nursing, nursing education, healthcare delivery systems, ethical/legal considerations, awareness of the working environment, an individual's responsibility in professional relationships, understanding of patients to include religious and cultural diversity and the skills required for the practical nurse in the leadership role.

PN 155 NURSING FUNDAMENTALS I

Credits: 6 (F,S)

Prerequisite: Instructor approval and successful completion of the prerequisites

This course provides students with introduction to the nursing process using nursing diagnosis, assessment, observation, reporting, and documentation. The students are provided basic concepts of wellness, normal laboratory values, and physiological and psychological aspects including communicable diseases and nosocomial infections. Standard precautions are stressed. Included are concepts related to bioethical considerations and cultural diversity of patient care throughout the life cycle. 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.

PN 156 NURSING FUNDAMENTALS II

Credits: 4 (S,SU)

Prerequisites: Successful completion of the first semester, PN 155 and instructor approval

This course provides complex nursing skills, knowledge, and attitudes necessary to care for the acutely ill patient. Students will be given the opportunity, in a lab setting, to practice these more complex nursing skills.

PN 236 MENTAL HEALTH

Credits: 2 (F,SU)

Prerequisite: Instructor approval and successful completion of the first semester

This course provides students theoretical concepts that provide a basis for understanding stressors and behaviors associated with socio/psychological disease processes. Common medical and nursing interventions employed in treatment of mental health dysfunctions are included.

PN 243 MATERNAL CHILD NURSING

Credits: 7 (F,SU)

Prerequisite: Instructor approval and successful completion of second semester in the Practical Nurse program and in the final semester

This course is designed to assist students in learning specialized skills used in the nursing care of the woman, infant, child, and family unit. The students will gain knowledge in common disease processes of the reproductive systems; including STD's, obstetrical nursing, normal and abnormal pregnancy, labor, and delivery. The nursing care of the woman throughout pregnancy and postpartum as well as the care of the newborn will be covered. Emphasis will be placed on health promotion of the newborn through adolescence including the nursing process in caring for the child with specific alterations in health status and the family's role in recovery and health maintenance. The clinical component of this course includes experiences in maternal and pediatric nursing

PN 246 NURSING ISSUES & TRENDS

Credits: 1 (F,SU)

Prerequisite: Students must be in the last semester or term of the Practical Nurse program and have successfully completed all previous courses.

This course provides students with information, which will enable them to function as members of the health care delivery system. It includes information on job application and professional growth and responsibilities.

# COURSE DESCRIPTIONS

Community health agencies, advanced educational programs and charge nurse responsibilities are also included. Students will take the National League of Nursing (NLN) test and receive an application for the State Board Examination.

## PSYCHOLOGY

PSY 101(IS) GENERAL PSYCHOLOGY (F,S,SU)  
Credits: 3

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(IS) LIFESPAN DEVELOPMENT (F,S,SU)  
Credits: 3

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 100 INTRODUCTION TO PHYSICAL THERAPY (F)  
Credits: 3

Prerequisite: Acceptance into PTA program  
Corequisite: PTA 110

This course provides the student with an overview of the profession of physical therapy. Emphasis is placed on the development of interpersonal skills relative to practice in a professional environment. Legal and ethical issues in health care, and documentation is introduced. Medical terminology is introduced and the students will learn the theoretical principles for basic patient care skills.

PTA 101 PHYSICAL THERAPIST ASSISTING I (F)  
Credits: 2

Prerequisites: Acceptance into PTA Program  
Corequisite: PTA 100, 110; AH 217, 218

Students will study the use of physical agents in rehabilitation. The study of the concepts underlying the application of each agent, and discussion of recent research studies concerning their use is included. The basis for the use of therapeutic massage and myofascial release techniques in the rehabilitation setting is also studied.

PTA 102 PHYSICAL THERAPIST ASSISTING I LAB (F)  
Credits: 2

Corequisite: PTA 101

The laboratory component of PTA 101 will include the application of physical agents including thermotherapy, compression, traction, ultrasound, and electrotherapies. Practice in therapeutic massage and introductory myofascial release techniques are included.

PTA 110 INTRODUCTION TO PHYSICAL THERAPY LAB (F)  
Credits: 1

Prerequisites: Acceptance into PTA program  
Corequisite: PTA 100

This course is the laboratory component of PTA 100. Students will practice the "hands-on" techniques of the clinical skills they are studying under the supervision of course instructor.

PTA 201 PHYSICAL THERAPIST ASSISTING II (S)  
Credits: 2

Prerequisites: AH 217, AH 218, PTA 100, 101, 102, 110 with a grade of "C" or higher and PTA 210 with a grade of "B" or higher  
Corequisites: PTA 203, 211, 212, 215, and PTA 216

This summer course includes the theoretical foundations of all forms of therapeutic exercise, chest physical therapy, and the management of patients with chronic and obstructive pulmonary conditions. The basis for the various types of therapeutic exercise, and exercise interventions for specific diagnosis or illness, is studied. Students will develop and plan exercise programs for specific patient populations.

PTA 202 PHYSICAL THERAPIST ASSISTING LAB II (S)  
Credits: 2

Corequisite: PTA 201

Clinical application of therapeutic exercise is practiced, including resistive exercise, aerobic conditioning, stretching, and flexibility exercises. The application of percussion techniques in chest physical therapy, and positioning of patients with pulmonary conditions is learned.

PTA 203 PHYSICAL THERAPY PROJECT (S)  
Credits: 1

Prerequisites: Successful completion of first semester PTA Program

The content of this course will be developed by the student, and determined acceptable through student-advisor agreement. The student will develop, plan and produce a project that will involve an activity related to physical therapy. The project may include elements that involve patient education, community service, patient advocacy, wellness programs, internship time with other health care disciplines, or other activities of special interest to the student. Scope, nature, and duration of project will be established through student-advisor agreement.

PTA 210 CLINICAL EXPERIENCE I (F)  
Credits: 3

Prerequisites: AH 217, AH 218, PTA 100, 101, 102, 110 and PTA 120 with a grade of "C" or higher

This first clinical experience, which totals 96 hours, is attended after successful completion of all first semester didactic and lab courses. Clinical education occurs under the supervision of a licensed physical therapist or physical therapist assistant. Students are provided with opportunities to develop clinical competencies in patient care skills and physical therapy interventions learned during the first semester of the program.

PTA 211 PHYSICAL THERAPIST ASSISTING III (F)  
Credits: 2

Prerequisites: All first semester didactic and lab courses with a grade of "C" or higher and PTA 210 with a grade of "B" or higher  
Corequisite: PTA 201, 203, 215, 216

The focus of this course is on the therapeutic interventions for the patient with neurological defects. Students are introduced to normal and abnormal neurological development, and the theories of facilitation and inhibition techniques utilized in the treatment of individuals with developmental disability. The students are introduced to theories relative to PNF, NDT, Rood, Brunnstrom, Sensory Integration, and others.

PTA 212 PHYSICAL THERAPIST ASSISTING LAB III (S)  
Credits: 2

Corequisite: PTA 211

This laboratory course which complements the studies of PTA 211 provides students with introductory therapeutic handling skills necessary in the treatment of individuals who are experiencing neurological compromise.

# COURSE DESCRIPTIONS

PTA 215 INTRODUCTION TO ORTHOPEDICS  
 Credits: 2 (S)  
 Prerequisites: All first semester didactic and lab courses with a grade of "C" or higher and PTA 210 with a grade of "B" or higher  
 Corequisite: PTA 216  
 Students explore common orthopedic injuries, pathologies, and their surgical intervention along with treatment protocols and physical therapy interventions. Students review special orthopedic tests performed by the evaluating physical therapist. The theory of joint mobilization is studied. Treatment procedures and special considerations for patients after amputation, the use of prosthetics, and the rationale for the use of orthotics is included in this course.

PTA 216 INTRODUCTION TO ORTHOPEDICS LAB  
 Credits: 1 (S)  
 Corequisite: PTA 215  
 This course includes practice of orthopedic tests performed in the clinical setting, to enhance student understanding of the physical therapist's orthopedic evaluation.

PTA 220 CLINICAL EXPERIENCE II  
 Credits: 4 (S)  
 Prerequisites: All second semester didactic and lab courses with a grade of "C" or higher  
 Students receive clinical education for a total of 160 hours during a four-week time period during the spring semester. Opportunities are provided to further develop clinical competencies under the supervision of a licensed physical therapist or assistant.

PTA 225 PROFESSIONAL ISSUES/CAPSTONE  
 Credits: 2 (SU)  
 Prerequisite: Successful completion of all courses in first and second semester of PTA Program  
 This course summarizes the learning experiences of the past two years, bringing the program to closure. Students participate in activities relative to their clinical experiences, both affectively and cognitively. Information for state licensure examination is disseminated, and preparation for examination is discussed. Professional issues are discussed, and case study is written and presented.

PTA 230 CLINICAL EXPERIENCE III  
 Credits: 7 (S)  
 Prerequisite: Successful completion of all courses in first and second semester of PTA Program.  
 Corequisite: PTA 225  
 This course is the final clinical experiences, totaling 320 hours over a eight-week period. The purpose of this clinical affiliation is to provide full time internship of practical performance and appropriate application of physical therapy procedures and techniques under the supervision of a clinical instructor. Students are expected to assume a partial or full caseload of patients, at the discretion of the clinical instructor. Documentation skills, patient and family education, billing procedures, and other tasks relative to entry-level practice are encouraged.

## RESPIRATORY CARE

RC 140 RESPIRATORY CARE CLINIC I  
 Credits: 5 (S)  
 Prerequisite: Consent of faculty  
 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: 5 (SU)  
 Prerequisite: RC 140  
 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: 3 (F)  
 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)  
 Respiratory Physiology covers structures and functions of the circulatory and respiratory systems. Topics studied are blood, the heart, blood 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.

RC 170 RESPIRATORY CARE TECHNIQUES AND PROCEDURES  
 Credits: 5 (F)  
 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: RC 170  
 Knowledge and skills taught will provide students with the theories, principles, and laboratory experience in the areas of adult and infant mechanical ventilation ventilators including, but not limited to: Nellcor Puritan Bennett 7200ae & 840, Siemens Servo 900C & 300a, BP 200, Bear Cub 2001, and infant Star. Other areas such as arterial blood gas techniques, transcutaneous gas monitoring, hyperbaric oxygen therapy, mixed gas therapy, ventilator weaning, and pressure support ventilation, ventilator waveforms and high frequency ventilation will be investigated.

RC 180 VENTILATOR MANAGEMENT  
 Credits: 2 (S)  
 This course covers ventilator management of the adult patient in the intensive care setting. Content includes oxygenation and ventilation, ventilation techniques, equipment, and monitoring.

RC 240 RESPIRATORY CARE CLINIC III  
 Credits: 6 (F)

RC 241 RESPIRATORY CARE CLINIC IV  
 Credits: 6 (S)  
 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. These courses extend through two semesters.

RC 245 RESPIRATORY CARE CLINICAL SEMINAR I  
 Credits: 1 (F)  
 Prerequisite: Concurrent with RC 240

# COURSE DESCRIPTIONS

RC 246 RESPIRATORY CARE CLINICAL SEMINAR II  
Credits: 1 (S)

Prerequisite: Concurrent with RC 241  
These courses consist of classroom discussion of current clinical issues and student in-service presentations. They extend through two semesters.

RC 250 HEMODYNAMIC MONITORING  
Credits: 3 (F)

Hemodynamic Monitoring covers the management of the circulatory system in the intensive care setting. Content includes ECG interpretation, monitoring, and management of cardiac function.

RC 255 PULMONARY ASSESSMENT  
Credits: 3 (S)

Prerequisite: Instructor approval  
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. Information will be used to investigate pulmonary diseases.

RC 260 NEONATAL RESPIRATORY CARE  
Credits: 3 (SU)

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 (F)

Prerequisite: Consent of faculty  
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 (F)

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 (S)

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, fungal diseases, asthma, RDS, COPD, sleep apnea, pulmonary embolus, cystic fibrosis, lung cancer, and AIDS.

RC 280 SUPERVISORY MANAGEMENT  
Credits: 2 (S)

The objective of this course is to provide students with the information and skills to facilitate the transition from respiratory therapist to respiratory supervisor. The areas investigated include interpersonal communications, planning, organizing, staffing, influencing, and motivating. Practical respiratory supervisory case studies provide student participation requiring role-playing in interpersonal communications, problem solving, and critical thinking. This course will include subsistence patterns, social structures, values and beliefs across past and modern cultures.

## RELATED

RELA 020 READING AND STUDY SKILLS  
Credits: 3 (F,S)

Pass/Fail Basis  
This self-paced course provides opportunities to improve reading comprehension and speed; presents instruction in note taking, time management, effective studying techniques, memory building, and test taking skills; and helps students examine their attitudes about college, setting goals, and assuming responsibility for their own learning.

RELA 200 SPECIAL PROJECTS  
Credits: Variable

Special projects and independent studies are available for students by special arrangement within the Related Instruction Department. 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.

## SOCIOLOGY

SOC 111(IS) 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 246(D) MONTANA'S AMERICAN INDIANS  
Credits: 3

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.

## SEMINAR

SEM 101/105 SEMINAR  
Credits: 1 (Sufficient Demand)

Seminars are offered at the College to meet the needs of its constituency for short-term training and education. All seminars are configured to meet the credit-bearing requirement and thereby are multiples of 15 hours in length. Since seminars normally are not required in a program of study; they do not meet the requirements for financial aid. Seminars are transcribed on the College's regular undergraduate transcript.

## SOCIAL SCIENCE

SOSC 180 NATURAL HISTORY OF WESTERN NORTH AMERICA

Credits: 3 (Sufficient Demand)  
This course is an overview of the realms of natural history applied to the Western United States. Of primary concern will be the areas of geology, paleontology, and the diverse kingdoms of life occupying the area throughout time. The entire landmass west of the Mississippi River will be investigated, with special emphasis on the National parks located in the various states. Laboratory work will be included as appropriate to the topics being covered.

# COURSE DESCRIPTIONS

SOSC 184 FUNDAMENTALS OF BIOLOGICAL AND CULTURAL ADAPTATION  
 Credits: 3 (Sufficient Demand)  
 The focus of this course is the interaction of human beings with their environment as related to the natural process of biological and cultural adaptation and variation. Topics in this course will include subsistence patterns, social structures, values and beliefs across past and modern cultures.

## SURGICAL TECHNOLOGY

SURG 102 SAFE PATIENT CARE & OPERATING ROOM TECHNIQUES  
 Credits: 5 (F)  
 Co-requisite: SURG 104  
 This course prepares students for the scrub and circulator roles of surgical technology, emphasizing the competencies involved, as well as the responsibilities of the surgical technologist.

SURG 104 SURGICAL TECHNOLOGY LAB  
 Credits: 7 (F)  
 Prerequisite: Consent of faculty  
 Co-requisite: SURG 102  
 An introduction to the physical organization of the surgical suite, including observation of surgical procedures and demonstrations of operating room techniques.

SURG 105 SURGICAL PROCEDURES I  
 Credits: 4 (F)  
 Co-requisite: SURG 104, SURG 192  
 This course familiarizes students with the surgical technologist's role during surgical procedures in the pre-operative, intra-operative, and post-operative stages.

SURG 106 SURGICAL PROCEDURES II  
 Credits: 5 (S)  
 Co-requisite: SURG 192, SURG 193  
 This course familiarizes students with the surgical technologist's role during surgical procedures in the pre-operative, intra-operative, and post-operative stages.

SURG 192 CLINICAL EXPERIENCE I  
 Credits: 4 (S)  
 Co-requisite: SURG 106  
 A supervised clinical experience in surgical settings providing scrub experience on surgical procedures.

SURG 193 CLINICAL EXPERIENCE II  
 Credits: 4 (S)  
 Co-requisite: SURG 106  
 A supervised clinical experience in surgical settings providing scrub experience on surgical procedures.

SURG 194 INTERNSHIP  
 Credits: 4 (SU)  
 Prerequisite: Instructor approval and all SURG classes with a grade of "C" or higher  
 The internship develops the students' competencies as first scrub on procedures and acquaints them with the professional expectations of surgical technologists as a capstone experience preparing them for initial employment.

## AUTO BODY REPAIR & REFINISHING

TB 112 AUTO AND PAINT SHOP SAFETY  
 Credits: 2 (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: 3 (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: 2 (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 (LACQUER)  
 Credits: 3 (F)  
 Students will study lacquer 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)  
 Corequisite: 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)  
 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.

# COURSE DESCRIPTIONS

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TB 243 PANEL REPLACEMENT (F)  
Credits: 3  
Prerequisite: TB 136  
This course will give students practical experience in removal and replacement of weld on panels, doorskins, rocker, quarter and top panels.

TB 245 PRODUCTION BODY REPAIR (S)  
Credits: 3  
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 (S)  
Credits: 3  
Corequisite: TB 245  
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 (F)  
Credits: 3  
Corequisite: 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 (F)  
Credits: 3  
Corequisite: 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.

TB 250 PRODUCTION REFINISHING (S)  
Credits: 3  
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 (S)  
Credits: 1  
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 (S)  
Credits: 3  
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.

## WORKSHOP

WS 101/105 SEMINAR (Sufficient Demand)  
Credits: 0  
Workshops are offered by the College to meet the needs of its constituency for short-term training, professional development activities, and cultural activities. Since workshops are considered continuing education, learning is configured as contact hours on the Continuing education transcript.

# FACULTY AND ADMINISTRATIVE STAFF

---

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M.B.A., University of Montana

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Theresa Blackwood ..... Information Technology  
Kerry Brashear ..... Art  
Bob Brown ..... Information Technology  
Michael Burrall ..... Golf  
Carol Byerly ..... Information Technology  
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Meredith Connie ..... Music  
Kathleen Cronin ..... English  
Terri Dahl ..... Mathematics  
Kathleen Deffe ..... Education  
Diane Dehne-Killpack ..... Mathematics  
Henry Drummond ..... Sign Language  
Keith Earnshaw ..... Biology  
Marjorie Foran ..... Dental Hygiene  
Lane Freiboth ..... Mathematics  
Mary Fry ..... Psychology  
Ellen Gersack ..... English  
Leonard Gidlow ..... Fly Fishing  
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Patricia Gillespie ..... Health Info Tech  
Larry Gomoll ..... Biology  
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Randi Graves ..... English  
Kristine Hartman ..... Interior Design  
Joel Henderson ..... Emergency Medical Services  
Eileen Hooglan ..... Health Information Technology  
Deborah Johnson ..... Health Information Technology  
Robert Johnson ..... Interior Design  
Ernest Keller ..... Accounting  
Cindy Kittredge ..... English  
Anna-Marie Krueger ..... Education  
Christine Krupar ..... Psychology  
James Kunka ..... Mathematics  
Hastings Lamb ..... Information Technology  
Raymond Landseidel ..... Information Technology  
Bonnie Lederman ..... Dental Hygiene  
Douglas LeVeque ..... Economics/Mathematics  
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Nancy Loncki ..... Business Management  
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Sandra Mares ..... Accounting  
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Lorraine Merrick ..... Dental Hygiene  
Tracy Milton ..... Office Technology  
Terrence Monroe ..... History  
Katie Myers ..... English  
Carol Paul ..... Education  
Stanley Perkins ..... History  
Jean Price ..... Art/Drawing  
Susan Rader ..... Education  
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Sridhar Rajappan ..... Health Information Technology  
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Byron Wallis ..... Music  
Leonard Waring ..... Welding  
Vance Weckworth ..... Office Technology  
Richard Wolverton ..... English, Tutor  
Mark Yaeger ..... Construction Design  
Mary Wisman ..... Interior Design

# SUPPORT PERSONNEL

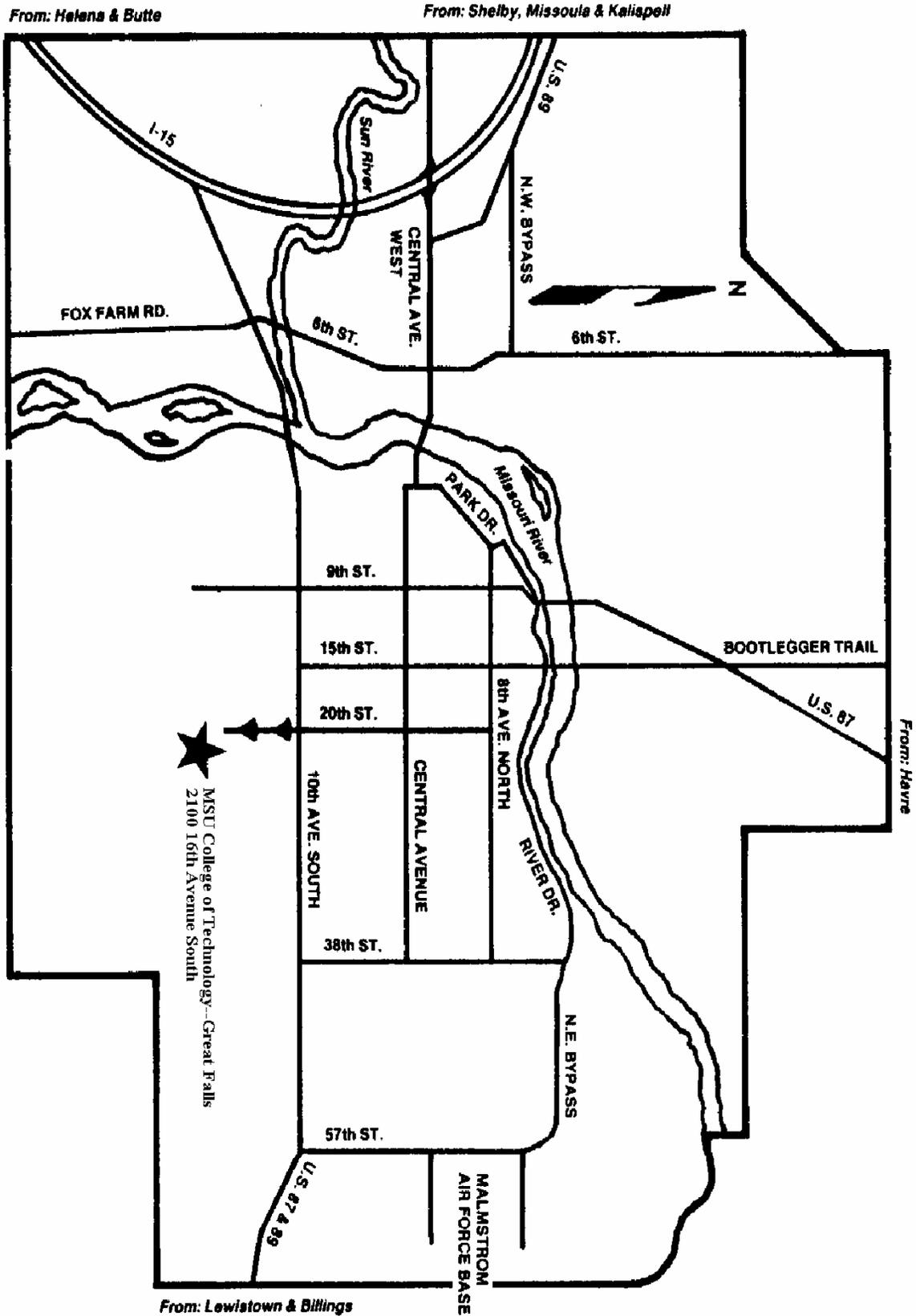
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Donald Beaulieu.....	Maintenance
Steven Bowers.....	Maintenance
Sandy Brown.....	Cafeteria
Kirsten Bryson.....	Library
Pamela Buckheit.....	Business & Technology Dept.
Tomas Cole.....	Computer Support
Cynthia Culver.....	Student Services
Paige Culver.....	Student Services
Kimberly Cummings.....	Financial Aid
Tomas Degel.....	Registrar's Office
Robert Donovan.....	Tutor
Gerald Eberl.....	Maintenance
Keith Eldridge.....	Bookstore
Art England.....	Maintenance
Deanne Frank.....	Accounts Payable
Marianne Frank.....	Bookstore
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Lee Anne Gills.....	Arts & Sciences Dept.
LeeAnn Gleason.....	Accounts Receivable
Deb Gunter.....	Accounting
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Nancy Hall.....	Library
Steven Halsted.....	Bookstore
Dona Keeler.....	Student Services
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Mary Orham.....	Associate Dean's Office
Deborah Richerson.....	Outreach
Julie Rummell.....	Student Services
Stacy Schauer-DeKoning.....	Metnet
Linda Schindele.....	Front Office
Bob Schroeder.....	Cafeteria
James Sweat.....	Print Center
Susan Thomas.....	Facility Coordinator
Karen Vosen.....	Distance Learning
John Watters.....	Computer Support
Shauna West.....	Maintenance
Ronald Wynegar.....	Maintenance

“Only you can be yourself.  
No one else is qualified for the job.”

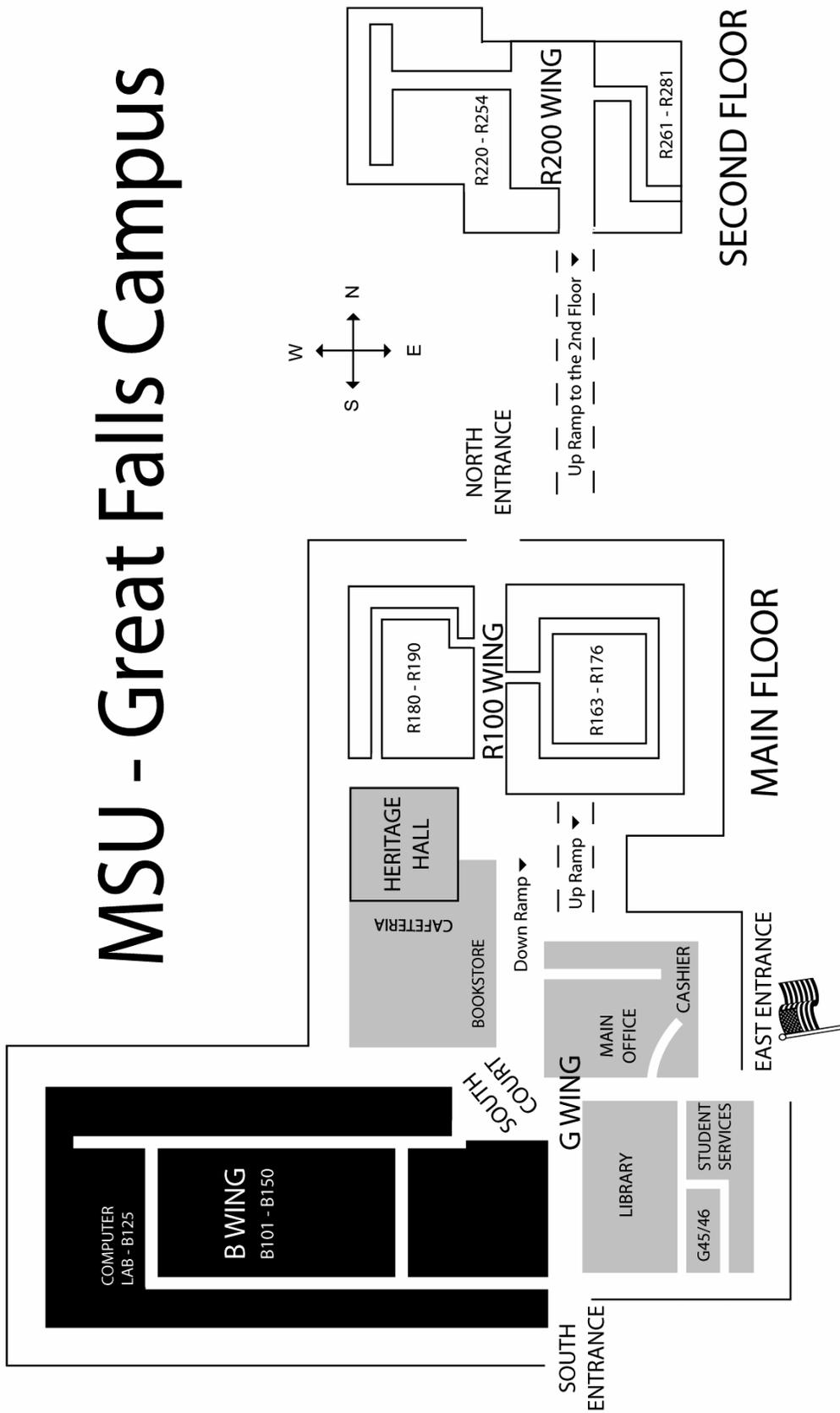
# GREAT FALLS MAP



# MSU – GREAT FALLS COLLEGE OF TECHNOLOGY MAP

2100 16<sup>TH</sup> AVENUE SOUTH ♦ GREAT FALLS, MT 59405

## MSU - Great Falls Campus



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# Higher Education Links

## Montana State University - Great Falls

**College Of Technology**  
2100 16th Avenue South  
Great Falls, Montana 59406  
(406) 771-4300 (800) 446-2698  
[www.msugf.edu](http://www.msugf.edu)

**Montana State University – Billings**  
Billings, MT 59101 (406) 657-2158  
[www.msubillings.edu](http://www.msubillings.edu) (800) 565-MSUB

**Montana Tech of The University of Montana**  
Butte, MT 59701 (406) 496-4178  
[www.mtech.edu](http://www.mtech.edu) (800) 445-TECH

**Helena College of Technology -UM**  
Helena, MT (406) 444-6800  
[www.hct.umontana.edu](http://www.hct.umontana.edu) (800) 241-4882

**Rocky Mountain College**  
Billings, MT (800) 877-6259  
395-4313

**Dawson Community College**  
Glendive, MT 59330 (406) 377-3396  
[www.dawson.cc.mt.us](http://www.dawson.cc.mt.us) (800) 821-8320

**Carroll College**  
Helena, MT (800) 992-3648  
edu

**University of Great Falls**  
Great Falls, MT (800) 856-9544  
[www.ugf.edu](http://www.ugf.edu)

**Montana State University – Bozeman**  
Bozeman, MT 59717 (406) 994-2452  
[www.montana.edu](http://www.montana.edu) (888) MSU-CATS

**The University of Montana – Missoula**  
Missoula, MT 59812 (406) 243-6266  
[www.umt.edu](http://www.umt.edu) (800) 462-8636

**Montana Tech College of Technology**  
Butte, MT 59701 (406) 496-3732  
[www.mtech.edu](http://www.mtech.edu) (800) 445-TECH

**UM College of Technology**  
Missoula, MT 59801 (406) 243-7882

**Flathead Valley Community College**  
Kalispell, MT 59901 (406) 756-3846  
[www.fvcc.cc.mt.us](http://www.fvcc.cc.mt.us) (800) 313-3822

**Blackfeet Community College**  
Browning, MT (406) 338-5421  
[www.montana.edu/~wwwai/bcc.html](http://www.montana.edu/~wwwai/bcc.html)

**Fort Belknap College, Harlem**  
Harlem, MT (406) 353-2607  
[www.fortbelknap.cc.mt.us/](http://www.fortbelknap.cc.mt.us/)

**Little Big Horn College**  
Crow Agency, MT (406) 638-7212  
[www.lbhc.cc.mt.us/](http://www.lbhc.cc.mt.us/)

**Montana State University – Northern**  
Havre, MT 59501 (406) 265-3704  
[www.msun.edu](http://www.msun.edu) (800) 662-6132

**The University of Montana-Western**  
Dillon, MT 59725 (406) 683-7331  
[www.wmtc.edu](http://www.wmtc.edu) (800)WMC-MONT

**MSU - Billings College of Technology**  
Billings, MT 59101 (406) 656-4445  
[www.cot.msubillings.edu](http://www.cot.msubillings.edu) (800) 565-MSUB

**Stone Child College**  
Box Elder, MT (406)

**Miles Community College**  
Miles City, MT 59301 (406) 234-3513  
[www.mcc.cc.mt.us](http://www.mcc.cc.mt.us) (800) 541-9281

**Dull Knife Memorial College**  
Lame Deer, MT (406) 477-6215 [www.carroll.edu](http://www.carroll.edu)  
[www.montana.edu/~wwwai/DKMC.html](http://www.montana.edu/~wwwai/DKMC.html)

**Fort Peck Community College**  
Poplar, MT (406) 768-5551  
[www.montana.edu/wwwfpcc/](http://www.montana.edu/wwwfpcc/)

**Salish Kootenai College**  
Pablo, MT (406) 675-4800  
[www.skcc.edu/](http://www.skcc.edu/)

Other great sources of information!!!

Your Guide to Montana's  
Postsecondary Technical  
Education Programs  
[www.msugf.edu/Your%20Guide/your\\_guide.htm](http://www.msugf.edu/Your%20Guide/your_guide.htm)

Montana University System  
Transfer Guide  
<http://www.montana.edu/mus/transfer.htm>