›MSU-GF

MSU-Great Falls Catalog for 2010-2011

This catalog contains general information about the campus and specific information about degree programs. You can browse the listing of contents below or download (coming soon) a PDF of the complete catalog. If you have questions or comments, please contact admissions@msugf.edu.

■ Download the Complete Catalog [coming soon]

* Addendum to Catalog

Table of Contents

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424 |

Dean's Welcome

Dear Prospective Student:

I believe one of life's greatest accomplishments is the attainment of educational goals we set for ourselves. Here at MSU–Great Falls, we are committed to helping you attain your goals. We are a student-centered institution, proudly focused on student success through quality instruction and learning. Our students come to us from all walks of life and we relish the diversity each individual brings to the campus community.

There has never been a better time to pursue a college credential with MSU–Great Falls. We offer programs in high-demand, high-wage career areas such as healthcare, business, information technology and our new construction trades program. A degree in these or any of our other outstanding programs is a first step in your new career. Our campus boasts a tremendous placement rate for graduates entering the workforce.

If your education goals include a four-year degree or beyond, MSU–Great Falls offers a high-quality, affordable place to start. The College offers the Montana University System Core and Associate of Arts/Associate of Science degrees along with numerous articulation agreements with other Montana universities all leading to ease of transfer as you move on to your bachelor degree program.

MSU–Great Falls understands today's students need flexibility and easy access to education. For this reason, we offer more online courses than most of the big campuses in Montana with various programs entirely online. In addition, MSU–Great Falls has numerous evening courses to accommodate working individuals.

Not only does MSU–Great Falls offer associate degree and certificate programs, but there are many opportunities for you to update your skills or learn a new hobby through our professional and continuing education, customized training, and special community events.

Finally, you will not find a better value than the education you receive at MSU–Great Falls. The quality education, small class size, individual attention, helpful student services, and exceptionally affordable tuition all add up to a smart investment in your future.

On behalf of the faculty and staff at MSU–Great Falls, I wish you much success in your educational pursuits and look forward to playing a part in helping you accomplish your goals. Welcome to MSU–Great Falls.

Sincerely,
Joe Schaffer, Dean/CEO

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Tagline

Changing Lives – Achieving Dreams

Vision

In the next decade, MSU–Great Falls will play a leading role in transforming the lives of our students, their communities and the economic prosperity of Montana by responding to learner and community needs through the use of partnerships, innovation, outreach and technology.

Mission

Our Mission is to foster the success of our students and their communities through innovative, flexible learning opportunities for people of all ages, backgrounds, and aspirations resulting in self-fulfillment and competitiveness in an increasingly global society.

Values

- Accountability –We ensure our decisions are data-informed and grounded in the best interest of our students and their communities.
- Integrity – We value civic responsibility, high academic standards, ethical practices, and the courage to act.
- Lifelong Learning – We believe education is a lifelong necessity and commitment; we personify this belief by engaging and reengaging students from all generations in learning opportunities.
- Respect - We value differences and treat others with civility, encouraging open and honest communication.
- Responsiveness – We recognize and act upon opportunities to be innovative, flexible, and adaptable to our students' and communities' needs.
- Student Success – We are dedicated to student success and achievement; we strive to meet the educational needs of our students and their communities.

Core Themes

At MSU-Great Falls we live the community college experience through an open-access admissions policy, a comprehensive educational program, a focus on teaching and learning, and a philosophy of student-centeredness. We strive to attain our Mission through the core themes and goals of:

1. Workforce Development: Through applied programming our students successfully attain a credential leading to life sustaining careers;
2. Transfer Preparation: Our students complete transfer programming and successfully

transfer toward a four-year degree;

3. Academic Preparation: We prepare individuals for success in college coursework through developmental (remedial) education and adult basic education; and

4. Community Development: As the community's college, we support social and economic development through outreach, lifelong learning, and active partnership.

EIGHT ABILITIES

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

1. **Communication:** The ability to utilize oral, written and listening skills to effectively interact with others.

2. **Quantitative Reasoning:** The ability to understand and apply mathematical concepts and models.

3. **Inquiry and Analysis:** The ability to process and apply theoretical and ethical bases of the arts, humanities, natural and social science disciplines.

4. **Aesthetic Engagement:** The ability to develop insight into the long and rich record of human creativity through the arts to help individuals place themselves within the world in terms of culture, religion, and society.

5. **Diversity:** The ability to understand and articulate the importance and influence of diversity within and among cultures and societies.

6. **Technical Literacy:** The ability to use technology and understand its value and purpose in the workplace.

7. **Critical Thinking:** The ability to understand thinking that is responsive to and guided by intellectual standards such as relevance, accuracy, precision, clarity, depth, and breadth.

8. **Effective Citizenship:** The ability to commit to standards of personal and professional integrity, honesty and fairness.

CORE INDICATORS OF INSTITUTIONAL EFFECTIVENESS

MSU–Great Falls College of Technology (MSUGF), is committed to the evaluation of institutional effectiveness and the assessment of student learning outcomes. This commitment is reflected through an assortment of activities and processes emanating from the College's mission, vision, values, core themes, and strategic plan.

As we strive to become more performance based in the allocation of resources and create a mission-centric model to document our effectiveness, MSUGF has established a set of measures to guide our processes. These measures, known as core indicators of institutional effectiveness[1], support our everyday operations and assist us as we seek continuous improvement towards mission achievement.

MSUGF's core indicators of institutional effectiveness[2] stem from the Montana Board of Regent's system measures of effectiveness, federal accountability law and policy and the College's core themes and values . The core indicators of institutional effectiveness are summarized and grouped in the following:

Participation
Core Indicator 1: Enrollment Rates
Core Indicator 2: Regional Market Penetration Rates

Student Success
Core Indicator 3: Persistence (Retention)
Core Indicator 4: Graduation Rates
Core Indicator 5: Demonstration of Abilities

Academic Preparation
Core Indicator 6: Success of Remedial Students in Developmental Coursework
Core Indicator 7: Success of Remedial Students in Subsequent and Related Coursework

Workforce Development
Core Indicator 8: Workforce Degree Production
Core Indicator 9: Placement Rates
Core Indicator 10: Licensure and Certification Pass Rates
Core Indicator 11: Employer Satisfaction with Graduates

Transfer Preparation
Core Indicator 12: Transfer Degree Production
Core Indicator 13: Transfer Rates
Core Indicator 14: Performance after Transfer

[1] A core indicator is "...a regularly produced measure that describes a specified condition or result that is central (or foundational) to the achievement of a college's mission and to meeting the needs and interests of key stakeholders" (Alfred, Shults, and Seybert, 2007, p. 12). Alfred, Shults, and Seybert (2007, p. 23) identified sixteen core indicators of effectiveness for community colleges. If applied comprehensively, these indicators will establish the foundation for a model of institutional effectiveness that will allow us to document our performance. We have adapted those core indicators and they are divided into five components related to our mission: student progress; developmental education; outreach; workforce development; and transfer preparation (Alfred, Shults, & Seybert, 2007, p. 23).

[2] Core Indicators of Institutional Effectiveness are assessed at the institutional level. In addition departments and divisions maintain and assess their effectiveness with unit-level indicators.

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General Information

NOTICE CONCERNING MATERIALS DESCRIBED IN THIS CATALOG:

All provisions within this catalog are subject to change without notice.

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

Governance

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

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

Accreditation

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

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

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

Important College Regulations and Policies

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

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

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

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

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

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

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

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

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

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

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

provided in the initial complaint and during the course of the investigation will remain as confidential as possible. The identity of both the complainant and the alleged harasser will be protected.

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

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

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

Student Central

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

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

Student Central - Admissions

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
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Student Central - Academic Information

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424 |

Student Central - Financial Aid

TITLE IV SCHOOL CODE 009314
Regular Office Hours: Monday-Friday 8:00 am - 5:00 pm
Phone: 406.771.4334 or 800.446.2698
FAX: 406.771.4410
Email: finaid@msugf.edu
Mailing Address
MSU Great Falls, Financial Aid Office, 2100 16th Ave. South, Great Falls, MT 59405

Student Central - Student Information

- Academic Integrity Policy
- Change of Program
- Complaint Procedure
- Disability Services For Students
- Family Educational Rights and Privacy Act (FERPA)
- Learning Center
- Library

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The Extended Learning Division

By offering innovative and flexible learning opportunities, the Extended Learning Division helps meet the diverse training needs for our internal campus community as well as the external community, as far-reaching as other countries. Made up of both the Distance Learning and the Outreach Departments, the Extended Learning Division anticipates and assesses needs for higher education, workforce training and facilitates the delivery of coursework and programs to meet those needs. The Division creates and sustains an environment of integrity, openness and innovation in providing and communicating the value of the many educational opportunities that we offer.

DISTANCE LEARNING DEPARTMENT

The College offers online courses which are an extension of the on-campus course offerings. Over 120 online courses are offered in General Education, Computer Technology, Business, Health Science, and Office Technologies. Emphasis is placed on offering online courses which support programs at the MSU-GF College of Technology, as well as other units of the Montana University System.

PROGRAMS AND OFFERINGS

- **Associate of Applied Science Degrees**
  - Health Information Technology
  - Medical Billing & Coding Specialist
  - Medical Transcription
- **Certificate of Applied Science Degrees**
  - Computer Assistant (approx. 80% online)
  - Health Information Coding Specialist
  - Medical Billing Specialist
  - Medical Transcription
- **Transfer Degree Options**
  - Montana University System Core for Transfer
  - Associate of Arts
  - Associate of Science
- **Professional Certificate Option**
  - Pharmacy Technician (PHA)
  - Public Safety Communications (PSC)

Additional information, including detailed course descriptions, is available on the web at http://distance.msugf.edu.

ONLINE COURSES

The College uses a variety of delivery methods to best accommodate students and hires qualified faculty, both inside and outside of the Great Falls area, to meet the needs of students working part- and full-time. Faculty are trained and supported by the Distance Learning Department to deliver effective instruction over the Internet. The majority of our online courses are delivered using the Desire2Learn (D2L) learning management system. Online students follow the same registration procedures as campus-based students. Online students have full access to MSU – Great Falls College of Technology library resources, online tutoring through the Learning Center, and have the opportunity to order textbooks online through the COTtage Bookstore (http://www.thecottagebookstore.com). The College plans distance learning opportunities, coordinates their delivery with academic departments,

and provides student and faculty support services. Please contact the Distance Ed office for more information about the programs and/or course offerings. Students at a distance are an important part of the campus community!

MIXED-MODE (HYBRID) COURSES

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

WEB-ENHANCED COURSES

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

ADVANTAGES FOR ONLINE COURSES: YOU CAN –

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

CHALLENGES: YOU MUST –

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

YOU MAY –

- Be required to find a testing proctor or come on campus to take exams for your online course(s), especially Mathematics, Accounting, and Computer Application courses.

For answers to questions about distance learning opportunities, please visit our website or call the Distance Learning Department at 406-771-4440 or 800-446-2698, ext. 4440. The Distance Learning Department is located on campus in A120 and provides orientations, trainings, and technical support.

OUTREACH AND WORKFORCE DEVELOPMENT

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

The Outreach Department offers credit-bearing Certificates and degree programs in addition to individual credit and non-credit bearing Professional and Continuing Education courses. A variety of non-credit courses and certification programs numbered (094) are offered both on campus and online. Credit-bearing courses numbered (194) serve as general electives for Associate of Arts or Science degrees at the college and provide excellent professional development opportunities for teachers requiring recertification with the state.

094 COURSES
Courses assigned a 094 number are considered non-credit professional and continuing education courses. They are typically offered to provide condensed coursework to meet the needs of working students and professionals in need of skills upgrades, to fulfill some of the requirements of Certificates, and other professional certification needs (e.g. OPI Renewal Units for Montana K-12 Teacher Certification). These courses are transcripted as Continuing Education Units (CEU's) and are eligible for Montana OPI Renewal Units. They are transcripted on the student's continuing education transcript. This includes online certification and courses offered through Cengage Learning, Ed2go and Gatlin.

194 COURSES
Courses assigned a course number of 194 are considered credit-bearing professional and continuing education courses. They are typically offered to provide condensed coursework to meet the needs of working students, professionals in need of skills upgrades, to fulfill some of the requirements of Certificates, offer a diversity of electives for Associate of Arts or Associate of Science degree seeking students, and fill certain professional certification needs (e.g. Montana K-12 Teacher Certification). These courses are eligible for financial aid for students using them as electives in degree and certificate programs where authorized. Students should consult their advisor to identify whether 194 courses will apply toward their program requirements. 194 courses are transcripted on the student's undergraduate transcript. 194 courses provide participants with the latest in technology, business, health and human development and other topics meeting the current trends and demands of the workplace. These credit-bearing courses (typically 1 credit) are offered each semester on the MSU – Great Falls campus and through the College of Technology in Bozeman.

Semester schedules with both 094 and 194 courses covering a variety of training topics are mailed to those interested. Please call the college at 406-771-4300 or 1-800-446-2698 to request that your name be added to the mailing list. You can also join our mailing list by going to our website at http://outreach.msugf.edu.

OUTCOMES: PROFESSIONAL AND CONTINUING EDUCATION

- To provide personal enrichment and lifelong learning opportunities to both our campus population as well as to individuals from the community;
- To provide business support, training and/or retraining to meet workforce needs;
- To provide diverse options for students that will allow them to fulfill the demands of their academic programs and/or financial aid requirements.

CONTINUING EDUCATION UNITS (CEU'S)
All non-credit professional and continuing education courses offered through the Division are transcripted as Continuing Education Units (CEU's). These are awarded to the student upon successful completion of the course and are recorded on the student's continuing education transcript. CEU's are awarded based on national accreditation guidelines of 1 CEU = 10 contact hours. In addition to CEU's, courses offered through the Division are also eligible for Office of Public Instruction (OPI) Renewal Units. These are awarded on a 1 Renewal Unit = 1 Contact hour formula and must be requested by the student.

CUSTOMIZED TRAINING
MSU – Great Falls' Outreach helps to meet the needs of workforce training in the greater Great Falls area in the form of customized training assistance to businesses, including those located in rural communities, to maximize their ability to make a profit. By developing customized training programs matched to business needs, the centers bring together groups of people for effective exchange of knowledge, and provide specialized, effective training for all areas of business. Examples of training currently being offered include: Customer Service, Telephone Etiquette, Sales Training, Train the Trainer, Supervisory Skills, Records Management, Communication Styles, Time Management, Business Plans, Cash Flow Management, Computer Skills, Marketing on the Internet, E-Commerce, Advertising, Successful Business Writing, Conflict Management, Technology Applications and Professional Image, among other topics.

The Outreach Department strives to provide the highest quality training solutions to area businesses. We invite you to join other great local companies and programs-Great Falls Clinic, Pacific Power and Light Montana, Veterans Upward Bound and Montana Air National Guard Family Program, to name a few who have taken advantage of this powerful training resource.

Call Linda McNeill for more information, 406-454-3217

DEGREES AND CERTIFICATES
The Extended Learning Division offers Professional Certificate programs which provide the student with the opportunity to move rapidly into the job market with a core of skills. The Certificate programs are offered during the day, late afternoon, evening and online to afford individuals the opportunity to earn credits while working. Students completing and graduating with Certificates have the opportunity to participate in the graduation ceremony. 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.

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

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

~ Radiologic Technology Associate of Applied Science Degree Completion Option (AAS)
Students who have successfully completed and documented that they graduated from an accredited Radiologic Technology program, are currently working in the field of radiology, and possess a current Radiologic Technologist State license may apply to the College's Radiologic Technology AAS Degree Completion program and earn a College degree by taking as little as 17 college credits.

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

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

Cisco certifications: www.cisco.com
CompTIA certifications: www.comptia.org
Microsoft certifications: www.microsoft.com/traincert
Oracle certifications: www.oracle.com
World Organization of Webmasters:
www.webprofessionals.org/certification/index.html

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

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

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

RESGISTERING 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 1pm to 5 pm Monday, 9am to 5 pm Tuesday through Thursday, 9am to 12pm on Fridays. Special appointments for exams may be available by contacting the Testing Center.

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

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

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424

College of Technology in Bozeman

College of Technology in Bozeman - an extension of MSU-Great Falls
201 Culbertson Hall,
Montana State University Campus
PO Box 170515, Bozeman, MT 59717
Tel: 406.994.5536 Fax: 406.994.5577

Website: bozeman.msugf.edu

Introduction

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

Mission Statement

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

The mission of the developmental education program is to provide engaging learning opportunities to enable students to enhance academic and life skills, to succeed in developmental coursework, to excel in subsequent college-level courses, and to becoming lifelong learners.

Bozeman Stats

Bozeman Population: 32,414
Gallatin County: 78,210
Elevation: 4,810
Founded: 1863

Bozeman … Always in Season

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

Programs

- **Aviation, Associate of Applied Science**

  When you complete this Associate of Applied Science degree, you will have all the credentials required to pursue a career as a professional pilot. Job opportunities range from a high-profile occupation as a pilot for a national or regional carrier to less well-known, but in-demand work as a pilot for cargo services, air taxis, media aircraft, corporate jets, and as Certified Flight Instructors. In Montana, employment for pilots is projected to grow faster than most occupations through 2012.* An AAS in Aviation combined with a bachelor's degree in a related field will make you especially competitive in the entry-level job market. Completion of the AAS in Aviation requires that you contract with a flight school recognized by the Aviation Program Advisory Council for the flight training leading to your Private Pilot Certificate, Commercial Pilot Certificate, Instrument Rating, and Certified Flight Instructor Certificate.

- **Design Drafting Technology, Associate of Applied Science**

  Earning an Associate of Applied Science degree in Design Drafting will qualify you to work in any field where detailed drawings, diagrams, and layouts are important aspects of developing new product designs and construction plans. These fields include contracting architects, building firms, manufacturers, high technology companies, and government agencies. As a Design Drafting Technician, you will use computer-based systems to produce technical illustrations used by production and construction. Sometimes called a CAD (Computer Aided Drafting) technician, you will create design concepts so that they are workable in the real world. More than 40 percent of drafters work in engineering and architectural services firms that design construction projects and 29 percent work in durable goods manufacturing.

- **Interior Design, Associate of Applied Science**

  With your Associate of Applied Science degree in Interior Design, you will be qualified to work in a number of settings including independent consulting, design firms, architecture firms, kitchen and bath design, retail and window display, home builders, flooring and furnishing retailers, lighting stores, and many others. The median yearly salary in Montana is $29,240.* Three of ten designers are self-employed. Interior design is a creative yet highly skilled occupation. As a designer, you draft, sketch, and use Computer Aided Drafting (CAD) to design non-load bearing interior construction. Areas of expertise include space planning, kitchen and bath design helping clients select fixtures and furnishings, supervising the coordination of colors and materials, obtaining estimates within the project budget, and overseeing the execution and installation of the project.

- **Welding Technology, Certificate of Applied Science**

  Looking for a one-year education that will lead to a career that's in high demand? Consider a Certificate of Applied Science in Welding Technology. Your education will give you the knowledge and skills to make satisfactory welds in all positions using the following techniques: shielded metal arc welding, gas metal arc welding, gas tungsten arc welding and flux cored arc welding. You'll also learn how to maintain tools and equipment and you will learn how
  to read and interpret blue prints. Your skills will be in high demand in many different settings from the creative arts in a museum district to oil rigs in the Atlantic Ocean. The median hourly wage is $12.50.* Most certified welders earn $38,200 per year.* Your salary may grow if an employer sees that you have completed a one year training program and that you've been listed on the AWS National Registry of Welders. Graduates are eligible to apply to be listed on the AWS National Registry of Welders.

- **College Preparatory Classes**
  Preparatory classes are available and can be used as electives in the student's program of study, with the exceptions of M 065 and WRIT 085. Preparatory courses are designed to develop skills to ensure the success in follow-on courses in MSU curricular areas. High
  quality instruction and out-of-class support are hallmarks of the College of Technology in Bozeman.
  - COLS 100: Effective Academic Practices
  - COLS 101 US: First Year Seminar
  - WRIT 080: Builidng Basic Writing Skills
  - WRIT 095: Developmental Writing
  - M 065: Pre-Algebra

- M 096: Survey of Algebra

Services for Students

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

General Information

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

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424 |

Admissions - Admission Requirements

Application [PDF] Re-Admit [PDF] Other Forms

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

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

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

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

   www.mtrules.org/gateway/ruleno.asp?RN=37%2E114%2E709

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Admissions - Advising

As students are admitted or readmitted to the College, they are advised by advisors in Student Central. These advisors assist students in understanding college policies and procedures, choosing a program of study, choosing first semester classes, and understanding College resources. Students continuing on to their second and subsequent semesters are assigned to a faculty advisor. Faculty advisors act as mentors, helping to guide students through the curriculum in their program to graduation or transfer. A faculty advisor will be a student's main contact for academic and program advice. However, they may refer a student to advisors in Student Central at times for specific assistance.

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Admissions - Applicants

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

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

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

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

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

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

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
MSU–Great Falls College of Technology has several programs that are limited enrollment programs, accepting a limited number of students each year. Interested students are urged to contact the specific program advisors as well as the Admissions Office for information specific to admission requirements and criteria for program acceptance. This process is separate from the general Application for Admission submitted to the Admissions Office.

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

concerning any questions regarding their eligibility for licensure or certification.

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

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Admissions - Cancellation, Refund & Grading Policy for Courses Numbered 194 and 094

All students wishing to drop from credit or non-credit-bearing PCE courses are required to fill out a Drop Form. These forms are available at the Outreach & Workforce Development office or online. If a class is dropped at least 3 working days prior to the first day of class, the full amount of tuition and fees will be refunded. For credit-bearing courses, the $30 semester registration and $30 one-time application fee will NOT be refunded.

If a class is not dropped at least 3 working days prior to the first day of class or the student enrolls and does not attend, the full amount of tuition and fees will be assessed. In certain instances exceptions to this policy may occur for drops occurring less than 3 working days prior to the first day of class. To be considered for an exception, an appeal stating the justification for this exception must be made in writing to the Registrar's Office.

If the Division of Outreach & Workforce Development Department decides to cancel a class, students will receive a 100% refund on all tuition and fees for non-credit courses and a refund on all but the $30 semester registration and one-time $30 application fees for credit-bearing courses. All PCE courses are graded and will show on the student's transcript. Considering that many PCE courses are short in length and therefore intense in content, attendance plays an integral part in the grading process. If you do not attend all of the class dates and times, you may receive a lowered grade for poor attendance. Grade appeals are considered academic complaints, procedures for which are outlined in the current course catalog and are administered by the Assistant Dean of Student Services.

Changes in Credit Load After Payment of Fees
Students adding courses after payment of fees are required to pay additional fees created by the change in credit load.

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

Refunds are processed approximately three weeks after the start of a semester. All refund checks will be mailed to the student's permanent mailing address as shown in the Banner system. It is the student's responsibility to maintain a current mailing address with the College.

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

agency for collection action.

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Admissions - Credit by Examination

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

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

Experiential Learning
MSU–Great Falls College of Technology (MSUGF) recognizes that learning occurs outside of the college setting. The outcome of this learning is often the acquisition of skills and/or knowledge which may be equivalent to learning at MSUGF and other institutions of higher education. MSUGF may award credit for this learning through the MSUGF Experiential Learning Policy. This policy is based on the Northwest Commission on Colleges and Universities (NWCCU) Policy 2.3., and can be found at the following link:

http://www.msugf.edu/about/PoliciesProcedures/300/306.1_ExperientialLearning_Updated.pdf

College Level Examination Program (CLEP) and DSST
Montana State University–Great Falls College of Technology awards credit toward graduation for successful performance in certain subject examinations of the CLEP and DSSTprograms. 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
- DSST 9472
- ACT 2432
- SAT 4482

CTE College Credit
Tech Prep in Montana has undergone great changes and is now called CTE College Credit. High school faculty across the state are working with the Office of the Commissioner of Higher Education (OCHE) to create statewide course articulations. Any questions about a particular class should be directed to high school faculty and counselors or OCHE.

Admissions - New Student Registration and Orientation

All degree seeking students will be required to attend or complete a STAR (STudent Advising and Registration) session with an advisor in Student Central prior to registration for their first semester of courses with MSU–Great Falls. STAR sessions are scheduled at various times for the student's convenience. Students completing a program that is online can complete a STAR session online with a follow up phone appointment with an advisor in Student Central.

Students must apply for Admission to MSU–Great Falls, complete their Admissions file, and submit placement testing (ACT/SAT or COMPASS) results or transfer credit in math and writing before attending their STAR session. Students will receive a letter with their College acceptance letter directing them to call Student Central to schedule their STAR session. If a student has not previously taken a placement test or does not have prior college coursework in math and writing, they may call Student Central to schedule a COMPASS test on campus. There is a testing fee that must be paid prior to testing.

A New Student Orientation Day will be held prior to each fall and spring semester. Additional information about this day will be given to the student during their STAR session.

Student Identification Card
Each student should obtain a nontransferable identification card. The identification card may be necessary when purchasing books, cashing checks in the bookstore and using the library. This ID is available in Student Central. In addition, students can replace a lost identification card in Student Central for $5.

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424 |

Admissions - Registration

Registration for students is available via Banner Web/My Info on the Internet. Students will need to obtain their advising number/alternate PIN before registering for classes. Continuing students will get this number from their faculty advisor. New students will receive this number when they complete their STAR session. Continuing students are defined as students who have been continuously enrolled (excluding summer) at MSU–GF College of Technology. New, transfer or readmit students must contact Student Central to speak to an Advisor before registering for theirs classes; this generally happens during the STAR process.

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

Attendance must be confirmed at the time tuition and fee payment is made. Confirmation is a separate process from either registration or payment. Attendance can be confirmed from the payment screen at:

Banner Web/My Info:
https://atlas.montana.edu:9001/pls/gfagent/twbkwbis.P_GenMenu?name=homepage in the secure area, under Billing and Payment.

Financial aid, class schedules, term registration, billing information, and payment options are accessible through Banner Web/My Info.
Students experiencing any problems accessing or using Banner Web/MyInfo should contact Student Central.

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Admissions - Registration Requirements

The following requirements must be satisfied prior to registration for courses at MSU-Great Falls:

- Completed Admission File (see Admission requirements:http://www.msugf.edu/catalog/Admissions/AdmissionRequirements.html)

- Complete Placement Assessment:
  All applicants will be required to complete placement testing or submit college transfer work in math and writing prior to enrolling in their first semester of classes. Students may take the COMPASS placement test or submit their American College Test (ACT) or Scholastic Aptitude Test (SAT) scores. Test scores are only valid at MSU–Great Falls for three years. The COMPASS is a standardized test that measures an applicant's proficiency in writing, reading and mathematics. The results are used to determine placement in courses. Special arrangements can be made for those applicants who have a documented or temporary disability. Arrangements for taking the COMPASS can be made by contacting Student Central at 406-771-4414 or 1-800-446-2698. There is a fee for the COMPASS test.

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

  ACT Records
  P.O. Box 451
  Iowa City, IA 52243-0451
  319-337-1313 www.act.org

  SAT Program
  Princeton, NJ 08541
  866-756-7346 www.collegeboard.com

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

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

Readmission to the College
Students who have previously attended Montana State University–Great Falls College of Technology must reapply when they have been absent for one semester, excluding summer. Readmit applications are available in Student Central or on the College's website http://www.msugf.edu/admissions_records/forms2.html. Readmitted students will have to furnish all required application materials if they have not already done so.

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

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

Ability to Benefit
Students who graduate from home school programs or private/religious schools not accredited by the state may take the COMPASS assessment to prove their "Ability to Benefit" from higher education. The student must meet the minimum scores to determine college readiness and to qualify for Financial Aid.

Early Admission
High school students may be admitted and allowed to register for college-level courses provided they are academically prepared. This process shall be confined to students who present evidence of the ability and maturity to do college work. This admission requires that the high school principal or counselor approve participation of a student in the college level courses. High school students may earn college-level credit to be applied to a degree at Montana State University – Great Falls College of Technology or to transfer to another college or university once they graduate from high school. Course records for students will be entered and maintained on an MSU–Great Falls College of Technology transcript. Early admission students will also have to furnish all required application materials if they have not already done so.

Home School Admission
Home school students must submit the admissions application and application fee, a notarized copy of the home school curriculum, two letters of recommendation from people other than family members, a parental approval form if the student is under 18 and immunization records if the student is degree seeking and taking more than six credits. Home school students must complete the ACT, SAT, or COMPASS test prior to enrolling at the College. Home school students will also have to furnish all required application materials if they have not already done so.

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

1. Completed Application for Admission accompanied by a $30 non-refundable application fee;

2. TOEFL (Test of English as a Foreign Language) scores from an accredited testing service. A minimum score of 500 is the acceptable standard on the paper-based test, 173 on the computer-based test and 61 on the internet-based test. More information about TOEFL may be obtained from the Education Testing Service, Princeton, NJ 08540 or on the featuring websites, www.ets.org and www.toefl.org;

3. Proof of completion of the equivalent of an American high school education with

satisfactory grades. Transcripts must be evaluated by a credential evaluation service to make this determination. Please contact Admissions & Records for a list of credential evaluation services;

4. A Declaration of Finances or other present evidence of funds necessary to pay all living expenses and travel to and from the college;

5. All nonimmigrant foreign students must show a physician-validated immunization record for measles, rubella, diphtheria, tetanus, and skin testing for tuberculosis. The evidence must be presented before a student will be permitted to register;

6. Evidence of an accident and sickness insurance policy or one of equal coverage for each semester in attendance at the College.

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

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424

Admissions - Residency Requirements

Tuition and Fee Schedule

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

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

In-State Completely Online: A person classified as in-state, who does not live in the following counties – Glacier, Toole, Liberty, Hill, Pondera, Teton, Choteau, Lewis and Clark, Cascade, Judith Basin, Meagher, or Fergus – and is ONLY enrolling in online courses is able to receive adjusted tuition and mandatory fees.

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

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

Questions regarding residency status should be addressed to the Admissions Office in Student Central.

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424

Admissions - Transfer From Other Institutions

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

- The transferring student must initiate the request for evaluation of credit during the admission procedure by furnishing an official transcript from the transferring institution(s) and the necessary materials, including copies of the appropriate catalog descriptions or course syllabi, to Admissions & Records. Official transcripts must be sent directly by the issuing institution to the following address:

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

- Grades less than a "C-" for previous course work will not be considered for transfer credit. Course work taken more than 5 years prior to transfer request may not be accepted. If transfer credit cannot be granted, the student has the option of challenging a course or courses through the Experiential Learning policy.

- Transfer credit will be accepted only as it applies to the student's declared program of study.

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

- Transfer credit will be posted on the transcript for accepted transferred course work.

- Transfer grades are not figured in the grade point average (GPA).

- Students who wish to appeal a decision regarding acceptance of transfer credit should contact Admissions & Records to receive information on the appeal process. Students may be asked to provide course descriptions and/or syllabi for an appeal.

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424 |

Admissions - Transfer To Other Institutions

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

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

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

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
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Admissions - Tuition & Fees Policy

Tuition and fees are to be paid each semester prior to the posted fee payment deadline unless prior arrangements have been made with Student Accounts. Acceptable payment arrangements include financial aid and the deferred payment plan (explained below). The College accepts credit cards (Visa, MasterCard, and Discover) in addition to cash and checks. Payment must be in U.S. funds only.

Deferred Payment Plan
The deferred payment plan is an interest-free installment loan available for qualified applicants who are unable to make full payment of current semester tuition, fees, and other charges on the regular fee payment day. This plan is available to all qualifying students through Student Accounts. Installment payments and the applicable $30 fee are collected and processed by Student Accounts. The Student Accounts office is located in Student Central.

Late Fee
A $40 late registration fee will be assessed if registration for classes is not accomplished prior to 12:01 AM on the first day of class each semester.

Fee Refunds

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

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

Fall & Spring Semester:

Days of Instruction*	Percent Refunded
Prior to first day of class	100
1-5	90
6-10	75
11-15	50
16-on	0

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

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

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

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 that they have been placed on academic probation for the following academic term. If, at the end of a subsequent term, they meet the required 2.0 CGPA, they are removed from academic probation. Academic probation serves to notify students that the quality of their work is below an acceptable level and that the continuation of unsatisfactory work during their next semester of enrollment will result in academic suspension. Students on probation will be limited to 13 credits during the probationary period.

- All students enrolled in credit bearing courses who receive less than a 2.0 GPA and have a CPGA below a 2.0 for the second consecutive academic term will be suspended from the College. Students on academic probation who earn at least a 2.0 grade average for the semester without raising their cumulative grade average to the required minimum will remain on academic probation.

- Following suspension, students will not be considered for reinstatement until at least one semester (excluding summer) has passed. Readmission must be initiated through Admissions & Records by completing the Application for Readmission and the Admission Academic Progress Appeal Form. If the appeal for readmission is approved, students will be readmitted on probationary status, limited to 13 credits in the fall and spring terms and seven credits in the summer term, and will be re-enrolled under the current catalog requirements for graduation.

- If a student is suspended at another school they will have to complete the Academic Appeal process to be considered for admission.

- Transfer applicants may be admitted on academic probation based upon their academic standing at previous institutions.

- Readmitted applicants may be admitted on academic probation based upon their cumulative grade point average (CGPA) and/or academic standing when last in attendance.

- Students who have been placed on academic probation or suspension may appeal in writing to the Registrar for review of circumstances.

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Academic Information - Adding and Dropping Courses

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

Students may drop one or more courses on Banner Web/My Info with no grade up to the end of the 15th day of fall and spring semesters. However, students may not drop all of their courses online, the student must contact Student Central to drop or withdraw from all courses for the term. Although no refund will be given, students may continue to drop one or more courses with faculty approval with a grade of "W" prior to the end of the published deadline. See the tuition and fees section of the catalog for further information.

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

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

- Obtain an official drop or add card from Student Central or online at http://www.msugf.edu/admissions_records/forms2.html
- Complete the card and secure the necessary faculty signature(s)
- Return the card to Admissions/Records in Student Central

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Academic Information - Attendance

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

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Academic Information - Common Course Numbering

The Montana University System is moving to common numbering for all undergraduate courses for public colleges and universities in Montana to assist with the transferability of courses among the State's institutions of higher education.

What this means:

- Most current MSU–Great Falls subject abbreviations and numbers have or will change as implementation moves forward. The link below will list the subject areas and specific courses by year of implementation. The second link is to the Office of the Commissioner of Higher Education for all courses in the Montana University System.
- All public colleges and universities in Montana will use the same subject abbreviations (the letter codes that indicate the course subject), numbers, and title for courses taught on more than one campus.
- If students transfer to another campus in the Montana University System, any common course numbered classes also taught at the new campus will automatically transfer as equivalent. All other courses will continue to transfer at the discretion of the Registrar's Office and the faculty at the receiving institution.
- Many familiar titles will change.
- Some courses will change level (e.g., from the 100-level to the 200 level). Course content is not affected by this process.
- During the transition period, which is likely to last several years, Program Advising Sheets and the Catalog will be updated yearly to reflect the changes.

www.msugf.edu/advising_planning/AdvisingDocumnets/CNS/index.html
musdw.msu.montana.edu:7777/ochedw/owa/musxfer.p_ccn_main

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Academic Information - Course Numbering System

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

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

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Academic Information - Course Substitution and/or Course Waiver

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 Division Director, student's advisor and the Registrar must approve all substitutions. In no instance will a reduction be made in the number of credits required for completion of a program.

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

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Academic Information - Degrees Offered

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

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

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

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

Associate of Arts (AA)
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.

Associate of Science (AS)
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.

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

Academic Information - Student Evaluation of Courses

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

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

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Academic Information - Grading

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

Grades	Quality of Work	Grade Points for Each Credit
A	Excellent	4.0
A-	-	3.7
B+	-	3.3
B	Above Average	3.0
B-	-	2.7
C+	-	2.3
C	Average	2.0
C-	-	1.7
D+	-	1.3
D	Passing	1.0
F	Failing	0.0
P	Pass	0.0
AU	Audit	0.0
CR	Credit	0.0
W	Withdrawal	0.0
I	Incomplete	0.0
NC	No Credit	0.0
NR	Not Recorded	0.0

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 (I) grade is issued at instructor discretion when student course work has been satisfactory up until the final few weeks of a semester, but unavoidable mitigating circumstances have prevented the student from completing the course. After consulting with the instructor of the course, a student must make a formal request for an Incomplete grade by completing the Request for an Incomplete Grade form, stating what unavoidable mitigating circumstance(s) prevented completion of the work and proposing the conditions under which the work will be completed. If a request form does not accompany the final grade, the student will be issued a Not Recorded (NR) grade until the proper paperwork is completed and submitted to the Registrar. If the instructor approves the request, the student will have until the end of the following semester to make up the Incomplete. If a student fails to make up an Incomplete within the allotted time, the Incomplete grade will be converted to an "F". The Division Director will approve all Requests for Incomplete Grades before they are submitted to the Registrar for posting. The Division Director must be given all information necessary to do final grading for the student as backup for the instructor in case he/she is not available to do the grading at the appropriate time. The Request for an Incomplete Grade Form can be obtained from the Registrar's Office or online at http://www.msugf.edu/admissions_records/forms2.html

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

Course Repeat
Courses may be repeated to increase one's knowledge and/or grade point average. The original grade, as well as subsequent grade(s) in the course, is reflected on the academic transcript. However, the grade and grade point value for the repeated course will replace the earlier grade and grade point value in the cumulative totals. The grade and accompanying information for a repeated course will be posted on the student's academic transcript for the semester during which the repeated course was completed.

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

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

Academic Records Appeals
Appeals regarding academic records must be addressed within three years of course enrollment. Any appeals filed more than three years after the date of last attendance will not be considered. Note: This policy applies to appeals for retroactive withdrawals and tuition refunds only. For policy on academic performance appeals, please see the Academic Complaints section of this catalog. The form for Academic Records Appeals may be found at: http://www.msugf.edu/admissions_records/pdf/SpecialConsideration.pdf

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

Academic Information - Graduation

Graduation Packet

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

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

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

A student must submit a formal application for graduation by the published term deadline. Applications can be obtained from Student Central or online at http://www.msugf.edu/admissions_records/forms2.html. A $25 non-refundable graduation fee is due upon submission of the application to Student Accounts. Application deadlines are published in this catalog and on the Academic Calendar located on the College's website. Students who fail to submit an application for graduation will not receive a certificate/degree. Students completing more than one certificate or degree must submit an application and $25 fee for each degree and certificate.

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

The commencement ceremony is held each May, at the conclusion of the spring semester. Caps and gowns can be purchased through the Bookstore for a fee. Courtesy of the Associated Students of MSU-Great Falls gown recycling program, some gowns are available for purchase at a lower rate than the new ones. Graduation announcements are also available for purchase through the Bookstore.

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

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Academic Information - Honors

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

Dean's List
To be eligible for the Dean's List, a student must earn 12 or more credits in Non-Pass/Fail courses 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 may be full-time or part time, must have completed 12 semester credits, and must have a cumulative grade point average of 3.5.

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

Graduation Honors
Upon successful completion of program requirements, a graduating student with a cumulative GPA of 3.75 or higher will receive High Honors, and a graduating student with a cumulative GPA between 3.5 and 3.749 will receive Honors. Graduation Honors are notes on the student's transcript.

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Academic Information - Transcript of Record

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

During most of the year, requests for transcripts will be processed within three to five working days after being received by the Records 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. Requests should be addressed to:

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

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

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

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

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Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424 |

Academic Information - Withdrawal from the College

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

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Financial Aid - Application Process

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

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

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Financial Aid - Assistance in Applying

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

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Financial Aid - Attendance

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

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Financial Aid - Changes to Financial Aid Policies

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

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Financial Aid - Diability Disclosure Statement

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

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Financial Aid - Electronic Notification

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

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Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424 |

Financial Aid - Eligibility Requirements

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

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

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Financial Aid - Federal Family Education Loan Program (FFELP)

FEDERAL SUBSIDIZED STAFFORD/FEDERAL UNSUBSIDIZED STAFFORD/FEDERAL PLUS

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

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

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Financial Aid - Federal Direct Loan Program

FEDERAL DIRECT SUBSIDIZED STAFFORD/FEDERAL DIRECT UNSUBSIDIZED STAFFORD/FEDERAL DIRECT PLUS

The Free Application for Federal Student Aid (FAFSA) must be completed to determine eligibility for all Direct loans. Students borrowing Direct loans receive funding directly from the federal government instead of from a bank or credit union.

All borrowers must maintain satisfactory academic progress in accordance with the policy of the Financial Aid Office and be enrolled at least half-time to qualify for any Direct loans.

Deferment and/or forbearance provisions for a variety of situations may be available.

*Effective the Summer 2010 semester, MSU – Great Falls will begin transitioning to the William D. Ford Federal Direct Loan Program, in which students with federal Stafford and Parent PLUS loans will borrow their funds from the federal government instead of from banks and credit unions. Some students may have a combination of both FFELP and Direct Loans for the Summer 2010 semester. Effective Fall 2010, all federal student loans at MSU-Great Falls will be through the Direct Loan Program.

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Financial Aid - Tuition Waivers

Waivers are administered by the Financial Aid Office. For all students, inquiries should be directed to the Financial Aid Office. All 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. Waivers do not require repayment. Waivers are state funded and require Montana residency status with the exception of the faculty/staff fee waiver.

Honorably Discharged Veteran Waiver

- Download Wavier

Tuition shall be waived for certain honorably discharged persons who served with the United States Armed Forces in specified time periods and are currently residents of the State of Montana according to the Board of Regents residency policy. A provision of this policy states that the fee waiver shall not apply to persons who qualify under federal laws granting educational benefits to veterans. Application forms are available from the Financial Aid Office. Recipients of this fee waiver are subject to satisfactory academic progress requirements. Fee waivers are available for War Orphans and dependents of prisoners of war. Direct inquiries to the Financial Aid Office.

Indian Student Waiver

- Download Waiver

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

Montana Senior Citizen Waiver

- Download Waiver

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

Surviving Dependents of Montana Firefighters/Peace Officers Waiver

Tuition shall be waived for the surviving spouse or child of any Montana firefighter or peace officer killed in the course and scope of employment. This waiver shall not apply to the extent that any person is eligible for educational benefits from any governmental or private

benefits program that provides comparable benefits. To apply, please contact the Financial Aid Office. Recipients of this fee waiver are subject to satisfactory academic progress requirements.

Faculty and Staff Waiver

Download Waiver

Tuition and some fees shall be waived for a maximum of 6 credits per term for permanent Montana University System employees who are employed at least ¾ time during the entire period of enrollment. Registration, building, program, required course fees, and other non-mandatory fees shall not be waived and remain the responsibility of the employee. Application forms are available from the Financial Aid Office.

Dependent Waiver

Download Waiver

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

Employees will be required to sign a statement verifying

1. that they are not utilizing the tuition waiver for themselves, and

2. the child utilizing the tuition waiver is claimed as a dependent for federal tax purposes, is unmarried and has not reached age 25 as of the first day of the semester for which the tuition waiver is granted; or

3. the employee is married to the spouse utilizing the tuition waiver. Documentation that a dependent has been claimed in the tax year the benefit is used may be required for audit purposes or in cases of suspected misuse. False certification of dependent eligibility for the tuition waiver is cause for discharge and the employee shall be required to repay the cost of the tuition waiver.

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

Financial Aid - Programs

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

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

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

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

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

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

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

Montana Higher Education Grant (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.

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

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Financial Aid - Priority Deadlines

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

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

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

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

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Financial Aid - Return of Title IV Funds

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

1. The term "Title IV Funds" refers to the federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: subsidized FFELP loans, unsubsidized FFELP loans, FFELP PLUS loans, Federal Pell Grants, federal ACG Grants, and federal SEOG. The state fund that may be affected is the MTAP grant.

2. A student withdrawal date is:

    - The date the student began the institution's withdrawal process or officially notified the institution of intent to withdraw, or
    - The midpoint of the period for a student who leaves without notifying the institution; or
    - The student's last date of attendance at a documented academically related activity.

3. Return of fund calculations:

    - For the purpose of billing and calculating return of funds, the summer sessions are part of one summer term.
    - In accordance with federal regulations, when financial aid is involved, return of funds are allocated in the following order: unsubsidized FFELP loans, subsidized FFELP loans, FFELP Plus loans, federal Pell Grants, federal SEOG, other Title IV assistance.
    - Copies of this calculation can be requested from the Financial Aid Office.

4. Institutional and student responsibilities with regard to the return of the Title IV funds.

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

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

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

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

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

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Financial Aid - Scholarships

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

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

Honor Scholarship for National Merit Scholarship Semifinalists
Tuition shall be waived for National Merit Scholarship semifinalists from Montana. This scholarship tuition 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. The Financial Aid Office posts scholarship information and deadlines on the Financial Aid website as information becomes available. There are many FREE scholarship searches available on-line as well.

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Financial Aid - Satisfactory Academic Progress Requirements

Appeal Form [PDF]

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

- Students are required to maintain a minimum 2.0 cumulative grade-point average (C average). Students with less than a 2.0 CGPA, but at least a 1.50 CGPA, at the end of each academic term will be placed on financial aid probation for the next academic term and placed on financial aid suspension at the end of the probation term if the CGPA is not 2.0 or above. If at any time a student's CGPA is less than a 1.50, and/or the completion ratio is less than 67%, the student will be placed on financial aid suspension;

- Students must complete 67 percent (rounded) of the number of attempted credits as of the end of the add/drop period each term. Students with a completion ratio of less than 67 percent at the end of each term will be placed on financial aid suspension;

- Students have a maximum time frame in which to receive financial aid, which is generally 150 percent of the number of required credits specified for each program of study;

- Students who have been placed on financial aid suspension and bring themselves into good standing may be reinstated for the payment period following the semester in which they regained satisfactory progress status. Students must submit a written request for reinstatement;

- Students will receive written notice when they are placed on financial aid probation or suspension; however, it is the student's responsibility to know if they are maintaining satisfactory academic progress for financial aid recipients.

Students who have been placed on financial aid suspension because of failure to meet the satisfactory academic progress requirements may appeal in writing to the Financial Aid Office for review of circumstances. Forms to appeal are available online or in the Financial Aid Office. Current federal regulations allow only for mitigating circumstances and occurrences beyond the student's control to constitute an eligible appeal. All appeals must contain documentation to verify the mitigating circumstances listed in the appeal.

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

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Financial Aid - State and Local Services

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

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Financial Aid - Veterans' Benefits

Students who are veterans of military services or active members of the guard or reserve may be eligible for Veterans' Educational Benefits. Application for benefits should be submitted to the regional Veterans Administration Office at least 30 days in advance of the start of the academic term. Dependents or spouses of veterans disabled or deceased as a result of a service related injury may be eligible for dependents educational benefit. Other educational benefits are extended to veterans using vocational rehabilitation. Once enrolled, recipients must request the Financial Aid Office verify their enrollment with the Veterans Administration to commence benefits.

Students using Veterans' Educational benefits at MSU–Great Falls College of Technology must maintain a 2.0 cumulative GPA. If the student falls below a 2.0 cumulative GPA, he/she will have one semester to raise the GPA to 2.0. If the student is unable to do this, he/she will be placed on suspension and will have to sit out a term before utilizing the veterans' educational benefit again. Appeals may be granted for extenuating circumstances.

For additional information or to apply for Veterans' Educational Benefits, visit www.gibill.va.gov or contact the Financial Aid Office at 406-771-4334 or the Veterans' Administration at 1-888-GIBILL1.

Active members of the guard or reserve should contact their unit concerning eligibility for federal tuition assistance or Montana guard scholarships.

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Financial Aid - Withdrawals / Changes in Enrollment

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

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

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

Appeals regarding retroactive withdrawals and tuition refunds must be addressed within three years of the student's course enrollment. Any appeals filed beyond this three year window will not be considered.

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Student Information - 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. Please see the link below for more information and the entire policy.

http://www.msugf.edu/facstaff/Adjuncts/pdfs/301.1_AcademicIntergrityJan08.pdf

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Student Information - Change of Program

In order to change their academic program, a student must complete the Change of Program form, which must be signed by the new advisor and returned to Admission & Records. Completion of this process ensures that the student is assigned an appropriate program advisor. The Change of Program form is available in Student Central or online.

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Student Information - Complaint Procedures

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

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

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

1. Discuss the situation with the individual(s) immediately involved. If unable or unwilling to discuss the matter with this individual, discuss it with an advisor or the supervisory staff most closely associated with the individual directly involved (e.g., the teacher of the class if the individual is another student, or the department chair if the individual is a faculty member, etc.).

2. If an acceptable resolution cannot be reached informally, or if such a discussion is not possible, the student may take her/his complaint to the Assistant Dean of Student Services, who will discuss the nature of the complaint with the student and direct the complaint to the appropriate official. Generally, the Assistant Dean of Student Services tries first to facilitate a resolution to the complaint through informal methods. However, this step may be bypassed at the discretion of the Assistant Dean of Student Services or at the request of the student.

3. If all informal processes fail to produce a satisfactory resolution, the student may choose to submit a formal complaint. To expedite an accurate investigation and a fair resolution of the problem at this level, the complaint should be stated in writing and should be brought to the Assistant Dean of Student Services as quickly as possible. The written complaint should describe the specific act(s) alleged to be in violation of the College's EEO policies, the student's attempts, if any, to resolve the grievance informally, the names of all individuals involved in or witness to the alleged act(s), and the precise remedy sought by the student. Students may use their own format for written complaints, or they may obtain a Formal Complaint Form from the Assistant Dean of Student Services.

4. All communication with the Assistant Dean of Student Services will be held in confidence to the extent possible; however, the Assistant Dean of Student Services may, in certain cases, assign the investigation of the complaint to another appropriately qualified individual and provide that individual with access to all documents and witnesses, with the understanding that all communication with the investigator will be held in confidence. All reasonable attempts will be made to complete the investigation within 15 working days of the submission of the complaint. However, extensions of this time frame may be necessary in certain cases.

5. Once an investigation has been authorized, the College is obligated to see it through to completion. Only the Dean of the College and the Assistant Dean of Student Services has the authority to halt an investigation. When the investigation has been completed, the Assistant Dean of Student Services will evaluate the evidence gathered and submit a Report of Findings to the Dean of the College within 10 working days of receipt of the Investigation Report, unless extenuating circumstances require an extension of that deadline.

6. Either party may appeal the Assistant Dean of Student Services findings from the investigation by submitting a written request for review to the Dean of the College. The request for review must be submitted within ten (10) working days after the student is notified of the findings of the Assistant Dean of Student Services. The Dean will receive and review all evidence and render a written decision with recommendations as to resolution within ten (10) working days of receipt of the request for review, unless extenuating circumstances require an extension of this time frame.

7. At any time prior to, during, or following the completion of the internal investigation process, complainants are entitled to contact and/or submit complaints to external civil rights organizations.

~ Academic Complaints

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

- on some basis other than performance in the course and/or compliance with course/College requirements;

- by more exacting or demanding standards than were applied to other students in the same section or circumstances;

- by a substantial departure from the instructor's, department's, or College's announced standards as articulated in the course syllabus, catalog descriptions, policies, and/or other written materials.

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

1. Informal Meeting. The student should attempt to resolve the matter directly with the instructor or administrator through a personal conference as soon as possible after the academic decision is known.

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

3. If a student requests assistance, the Assistant Dean of Student Services Department will assist with any remaining steps of the formal procedure that the student considers.

4. The student will send a copy of the grievance to the instructor/administrator, who will have ten (10) working days to respond after receipt of the grievance.

5. The Department Chair will receive and review all evidence, interview each party, if possible, and render a written decision to the student, instructor, and Assistant Dean of Student Services with recommendations as to resolution within ten (10) working days of receipt of the instructor's response. If the grievance is not concluded within this time, the student may carry it forward to the appropriate Associate Dean.

6. Associate Dean's Review. Either party may appeal the department chair's/Director's decision in writing to the Associate Dean, with copies to the instructor, student, department chair/director, and the Assistant Dean of Student Services. Such appeal will be filed within five (5) working days of receipt of the department chair's determination. The Associate Dean will submit a written decision to the student, instructor, Department Chair, and the Assistant Dean of Student Services within ten (10) working days of receipt of the appeal. The decision of the Associate Dean may be appealed to the Dean/CEO of the College.

~ Student Conduct Complaint Procedures

Below is an abbreviated version of MSU–Great Falls College of Technology's Student Conduct Complaint Procedures, including the Student Conduct Code and how to file a complaint. For a complete copy of the procedures, please see the office of the Assistant Dean of Student Services (771-5133).

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 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.

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

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

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

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

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

The Assistant Dean of Student Services will complete an initial investigation to determine what, if any, sanctions are warranted. If all parties involved – the Assistant Dean of

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

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Student Information - Disability Services for Students

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

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

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

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

- Have a permanent or long-term (≥ 6 mos.) medical or psychological condition which significantly impairs the student's ability to function in an academic setting;

- Provide Disability Services with current documentation of disability from a qualified professional; this documentation will be kept confidential in accordance with the Disability Services Confidentiality Policy;

- Be "otherwise qualified" for the chosen course of study and able to meet the behavioral standards set forth in the College's Student Conduct Code.

Unlike high school, educational accommodations at the postsecondary level are student initiated. Each student who chooses to seek accommodations must meet with the Disability Services Director. Together they will determine what accommodations to request based on student's limitations and the demands of the course. The medical, psychiatric and/or psychological documentation provided by students is kept in confidential files in Disability Services. A complete copy of the Eligibility Criteria and the Confidentiality Policy can be obtained from the Director or found online. Depending on the student, available accommodations may include, but are not limited to:

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

Students with disabilities are encouraged to contact Disability Services upon enrollment and

should visit with the Director each semester to determine accommodation needs for each class.

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

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

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Student Information - Family Educational Rights and Privacy Act (FERPA)

■ More Information on FERPA ■ FERPA Online Quiz

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

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

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

Currently registered students have the right to request that information designated as directory information be withheld from release by the College. Any student wishing to exercise this right must inform the Registrar in writing no later than the tenth (10th) class day of the academic term.

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

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Student Information - Learning Center

The Learning Center provides free tutoring services to students enrolled in classes at MSU–Great Falls College of Technology and is a hub for academic assistance and collaboration. It is the Learning Center's mission to assist students in becoming independent learners as the tutors provide help in subject content and study skills. Learning Center staff will assist students in setting up study groups, and are active supporters of all students' efforts to be successful in their academic programs at MSU–Great Falls College of Technology.

The Learning Center is located in R263 at the top of the ramp. Appointments are encouraged, but walk in help is also available. To schedule an appointment or to gain a copy of the tutoring schedule, call 771-5127.

Study Skills Assistance
The tutors in the Learning Center assist students in the foundational skills required to be successful in college. Some of these skills include:

- Textbook Reading
- Note Taking
- Time Management
- Organization
- Dealing with Testing and Math Anxiety
- Test Preparation

Workshops are held throughout the semester on various study skills topics.

Content Tutoring
Content tutoring is available in the following areas:

- Biology
- Chemistry
- Writing
- Accounting
- Computers
- Math

Online Tutoring
Tutoring is also available online for students enrolled in distance courses or if they are not able to come to campus during business hours. No additional software is required for the student to participate. A web cam and microphone is suggested, but there are alternatives available if the student does not have access to them.

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MONTANA UNIVERSITY SYSTEM CORE

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

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

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

STUDENT LEARNING OUTCOMES FOR MSU–GREAT FALLS CORE:

COMMUNICATION
(ENGLISH COMPOSITION AND ORAL COMMUNICATION):

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

MATHEMATICS:

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

HUMANITIES/FINE ARTS:

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

NATURAL SCIENCE:

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

- Understand the role that human diversity plays in the practice and history of science.
- Demonstrate proficiency in the collection, interpretation, and presentation of scientific data.

SOCIAL SCIENCES/HISTORY:

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

CULTURAL DIVERSITY:

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

CULTURAL HERITAGE OF AMERICAN INDIANS:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $4537
Application Fee..... $30
Lab Fees $60
Books..... $600
TOTAL:..... $5227

MUS Student Health Insurance Premium approx $1600/year if needed

MONTANA UNIVERSITY SYSTEM CORE COURSES

OFFERED ONLINE AND ON CAMPUS.

COMMUNICATION--6 CREDITS (Need 3 writing & 3 verbal credits)

COURSE	NO.	TITLE	CREDITS	GRADE
WRIT	101**	College Writing I	3†	_____
		AND 1 of the following		
COLS	101	First Year Seminar	3†	_____
COMM	130	Public Speaking	3†	_____
COMM	135	Interpersonal Communication	3†	_____

MATHEMATICS--3 CREDITS

COURSE	NO.	TITLE	CREDITS	GRADE
M	116**	Math for Health Careers	3†	_____
M	121**	College Algebra	3+	_____
M	145**	Math for Liberal Arts	3†	_____
M	152**	Precalculus Algebra	4†	_____
M	153**	Precalculus Trigonometry	3†	_____
M	171**	Calculus I	4†	_____
STAT	216**	Introduction to Statistics	4†	_____

HUMANITIES/FINE ARTS--6 CREDITS

COURSE	NO.	TITLE	CREDITS	GRADE
ART	101	Intro to Visual Arts	3†	_____
ART	114	Art Fundamentals	3†	_____
ART	140	Drawing I	3†	_____
DE	161	Introduction to Design	3†	_____
ENGL	217	Creative Writing	3†	_____
LIT	110	Intro to Literature	3†	_____
LIT	231*	Ancient to Ren World Lit	3†	_____
LIT	232*	Modern World Lit	3†	_____
LIT	291	Special Topics - Literature	3†	_____
HUM	242	Gender & Equality	3†	_____
MUSI	101	Enjoyment of Music	3†	_____
MUSI	105	Music Theory I	3†	_____
MUSI	203	American Popular Music	3†	_____
MUSI	207	World Music	3†	_____
PHL	101	Introduction to Philosophy	3†	_____
PHL	110	Introduction to Ethics	3†	_____

NATURAL SCIENCE--7 CREDITS (Must include 1 lab course)

COURSE	NO.	TITLE	CREDITS	GRADE
BIOB	101**	Discover Biology	4†	_____
BIO	107**	Fund of Human Biology/Lab	4†	_____
BIOB	160*	Principles of Living Systems/Lab	4†	_____
BIOB	170*	Principles of Biological Diversity/Lab	4†	_____
BIO	205	Personal Nutrition	3†	_____
CHMY	101*	Chemistry for the Consumer	3†	_____
CHMY	121*	Intro to General Chemistry/Lab	4†	_____
CHMY	141*	College Chemistry I/Lab	4†	_____
CHMY	143*	College Chemistry II/Lab	4†	_____
GEO	101	Introduction to Physical Geology/Lab	4†	_____
PHYS	110	Survey of Natural Sciences	3†	_____
PHYS	130	Fund Physical Science w/Lab	4†	_____

SOCIAL SCIENCES / HISTORY--6 CREDITS

COURSE	NO.	TITLE	CREDITS	GRADE
ECNS	201	Principles of Microeconomics	3†	_____
ECNS	202	Principles of Macroeconomics	3†	_____
HSTA	101N	American History I	3†	_____
HSTA	102N	American History II	3†	_____
HSTA	255N	Montana History	3†	_____
HSTR	101	Western Civilization I	3†	_____
HSTR	102	Western Civilization II	3†	_____
PSCI	210	Intro to American Government	3†	_____
PSYX	100	Introduction to Psychology	3†	_____
PSYX	230	Developmental Psychology	3†	_____
SOCI	101	Introduction to Sociology	3†	_____
SOCI	121	Introduction to Criminal Justice	3†	_____

CULTURAL DIVERSITY--3 CREDITS

COURSE	NO.	TITLE	CREDITS	GRADE
ANT	101	Intro to Anthropology	3†	_____

BUS	249	Global Marketing	3†	_____
HUM	244	American Cultural Values	3†	_____
LIT	215N	Literature of the West	3†	_____
LIT	289N	Intro to Native American Literature	3†	_____
NAS	201N	Montana's American Indians	3†	_____
NAS	215N	Native American Religious Traditions	3†	_____
SIGN	101	Intro to American Sign Language	3†	_____

CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

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

TOTAL CREDITS – 31

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

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

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

Upon completion of the General Education Core, please notify the Registrar to have the core indicated on your transcript. A form requesting that the MUS Core be transcripted is available in Student Central and on the web site at http://www.msugf.edu/admissions_records/forms.html. This will need to be turned in to the Registrar's Office upon completion of the program.

ASSOCIATE OF ARTS DEGREE

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

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

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

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees.....$7530
Application Fee.....$30
Lab Fees $70
Books.....$790
TOTAL:.....$8420

MUS Student Health Insurance Premium approx $1600/year if needed

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

COMMUNICATION--6 CREDITS (Need 3 writing & 3 verbal credits)

COURSE	NO.	TITLE	CREDITS	GRADE
WRIT	101**	College Writing I	3†	_____
		AND 1 of the following		
COLS	101	First Year Seminar	3†	_____
COMM	130	Public Speaking	3†	_____
COMM	135	Interpersonal Communication	3†	_____

MATHEMATICS--3 CREDITS

COURSE	NO.	TITLE	CREDITS	GRADE
M	116**	Math for Health Careers	3†	_____
M	121**	College Algebra	3+	_____
M	145**	Math for Liberal Arts	3†	_____
M	152**	Precalculus Algebra	4†	_____
M	153**	Precalculus Trigonometry	3†	_____
M	171**	Calculus I	4†	_____
STAT	216**	Introduction to Statistics	4†	_____

HUMANITIES/FINE ARTS--6 CREDITS

COURSE	NO.	TITLE	CREDITS	GRADE
ART	101	Intro to Visual Arts	3†	_____
ART	114	Art Fundamentals	3†	_____
ART	140	Drawing I	3†	_____
DE	161	Introduction to Design	3†	_____
ENGL	217	Creative Writing	3†	_____
LIT	110	Intro to Literature	3†	_____
LIT	231*	Ancient to Ren World Lit	3†	_____
LIT	232*	Modern World Lit	3†	_____
LIT	291	Special Topics - Literature	3†	_____
HUM	242	Gender & Equality	3†	_____
MUSI	101	Enjoyment of Music	3†	_____
MUSI	105	Music Theory I	3†	_____
MUSI	203	American Popular Music	3†	_____
MUSI	207	World Music	3†	_____
PHL	101	Introduction to Philosophy	3†	_____
PHL	110	Introduction to Ethics	3†	_____

NATURAL SCIENCE--7 CREDITS (Must include 1 lab course)

COURSE	NO.	TITLE	CREDITS	GRADE
BIOB	101**	Discover Biology	4†	_____
BIO	107**	Fund of Human Biology/Lab	4†	_____
BIOB	160*	Principles of Living Systems/Lab	4†	_____
BIOB	170*	Principles of Biological Diversity/Lab	4†	_____
BIO	205	Personal Nutrition	3†	_____
CHMY	101*	Chemistry for the Consumer	3+	_____
CHMY	121*	Intro to General Chemistry/Lab	4†	_____
CHMY	141*	College Chemistry I/Lab	4†	_____
CHMY	143*	College Chemistry II/Lab	4†	_____
GEO	101	Introduction to Geology/Lab	4†	_____
PHYS	110	Survey of Natural Sciences	3†	_____
PHYS	130	Fund Physical Science w/Lab	4†	_____

SOCIAL SCIENCES/ HISTORY--6 CREDITS

COURSE	NO.	TITLE	CREDITS	GRADE
ECNS	201	Principles of Microeconomics	3†	_____
ECNS	202	Principles of Macroeconomics	3†	_____
HSTA	101N	American History I	3†	_____
HSTA	102N	American History II	3†	_____
HSTA	255N	Montana History	3†	_____
HSTR	101	Western Civilization I	3†	_____
HSTR	102	Western Civilization II	3†	_____
PSCI	210	Introduction to American Government	3†	_____
PSYX	100	Intro to Psychology	3†	_____
PSYX	230	Developmental Psychology	3†	_____
SOCI	101	Introduction to Sociology	3†	_____
SOCI	121	Introduction to Criminal Justice	3†	_____

CULTURAL DIVERSITY--3 CREDITS

COURSE	NO.	TITLE	CREDITS	GRADE
ANT	101	Intro to Anthropology	3†	_____
BUS	249	Global Marketing	3†	_____
LIT	215N	Literature of the West	3†	_____
LIT	289N	Intro to Native American Literature	3+	_____
HUM	244	American Cultural Values	3†	_____
NAS	201N	Montana's American Indians	3†	_____
NAS	215N	Native American Religious Traditions	3†	_____
SIGN	101	Intro to American Sign Lang	3†	_____

CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

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

II. COMPUTER SKILLS/USAGE--3 CREDITS

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	120	Introduction to Computers	3†	_____

OR any CIT 3 credit hour course that has CAPP 120 as a prerequisite

NO MORE THAN 5 CREDITS OF COURSES NUMBERED 194 MAY BE APPLIED TOWARD THE DEGREE.

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

Students may choose coursework numbered 100 or above from any of the following discipline areas to complete the required 9 credits of coursework in arts, humanities, and social sciences. (ART) Art, (ANTH) Anthropology, (COMM) Communication, (ECNS) Economics, (ENGL) English (except ENGL 118, ENGL 119 or ENGL 120), (HSTA, HSTR) History, (HUM) Humanities, (LIT) Literature, (MUSI) Music, (NAS) Native American Studies, (PHL) Philosophy, (PSCI) Political Science, (PSYX) Psychology, (SIGN) American Sign Languages, (SOCI) Sociology, and (WRIT) Writing.

IV. ELECTIVES - 17 CREDITS

Students may choose coursework numbered 100 or above from any discipline area to complete the required 17 credits of electives. Students may not choose or may not count the following courses: MATH 100, MATH 101, MATH 103, MATH 104, MATH 108, M 108, M 111,0 ENGL 118, ENGL 119, ENGL 120

TOTAL PROGRAM CREDITS - 60

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

ASSOCIATE OF SCIENCE DEGREE

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

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

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

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

Students who complete the Associate of Science degree will:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees.....$7530
Application Fee.....$30
Lab Fees $70
Books.....$790
TOTAL:.....$8420

MUS Student Health Insurance Premium approx $1600/year if needed

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

COMMUNICATION--6 CREDITS (Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits	Grade
WRIT	101**	College Writing I	3†	_____
		AND 1 of the following		
COLS	101	First Year Seminar	3†	_____
COMM	130	Public Speaking	3†	_____
COMM	135	Interpersonal Communication	3†	_____

MATHEMATICS--3 CREDITS

Course	No.	Title	Credits	Grade
M	116**	Math for Health Careers	3†	_____
M	121**	College Algebra	3+	_____
M	145**	Math for Liberal Arts	3†	_____
M	152**	Precalculus Algebra	4†	_____
M	153**	Precalculus Trigonometry	3†	_____
M	171**	Calculus I	4†	_____
STAT	216**	Introduction to Statistics	4†	_____

HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits	Grade
ART	101	Intro to Visual Arts	3†	_____
ART	114	Art Fundamentals	3†	_____
ART	140	Drawing I	3†	_____
DE	161	Introduction to Design	3†	_____
ENGL	217	Creative Writing	3†	_____
LIT	110	Intro to Literature	3†	_____
LIT	231*	Ancient to Ren World Lit	3†	_____
LIT	232*	Modern World Lit	3†	_____
LIT	291	Special Topics - Literature	3†	_____
HUM	242	Gender & Equality	3†	_____
MUSI	101	Enjoyment of Music	3†	_____
MUSI	105	Music Theory I	3†	_____
MUSI	203	American Popular Music	3†	_____
MUSI	207	World Music	3†	_____
PHL	101	Introduction to Philosophy	3†	_____
PHL	110	Introduction to Ethics	3†	_____

NATURAL SCIENCE--7 CREDITS (Must include 1 lab course)

Course	No.	Title	Credits	Grade
BIOB	101**	Discover Biology	4†	_____
BIO	107**	Fund of Human Biology/Lab	4†	_____
BIOB	160*	Principles of Living Systems/Lab	4†	_____
BIOB	170*	Principles of Biological Diversity/Lab	4†	_____
BIO	205	Personal Nutrition	3†	_____
CHMY	101*	Chemistry for the Consumer	3+	_____
CHMY	121*	Intro to General Chemistry/Lab	4†	_____
CHMY	141*	College Chemistry I/Lab	4†	_____
CHMY	143*	College Chemistry II/Lab	4†	_____
GEO	101	Introduction to Geology/Lab	4†	_____
PHYS	110	Survey of Natural Sciences	3†	_____
PHYS	130	Fund Physical Science w/Lab	4†	_____

SOCIAL SCIENCES/ HISTORY --6 CREDITS

Course	No.	Title	Credits	Grade
ECNS	201	Principles of Microeconomics	3†	_____
ECNS	202	Prinicples of Macroeconomics	3†	_____
HSTA	101N	American History I	3†	_____
HSTA	102N	American History II	3†	_____
HSTA	255N	Montana History	3†	_____
HSTR	101	Western Civilization I	3†	_____
HSTR	102	Western Civilization II	3†	_____
PSCI	210	Introduction to American Government	3†	_____
PSYX	100	Intro to Psychology	3†	_____
PSYX	230	Developmental Psychology	3†	_____
SOCI	101	Introduction to Sociology	3†	_____
SOCI	121	Introduction to Criminal Justice	3†	_____

CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits	Grade
ANT	101	Intro to Anthropology	3†	_____
BUS	249	Global Marketing	3†	_____
LIT	215N	Literature of the West	3†	_____
LIT	289N	Intro to Native American Literature		
HUM	244	American Cultural Values	3†	_____

NAS	201N	Montana's American Indians	3†	_____
NAS	215N	Native American Religious Traditions	3†	_____
SIGN	101	Intro to American Sign Lang	3†	_____

CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

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

II. COMPUTER SKILLS/USAGE--3 CREDITS

Course	No.	Title	Credits	Grade
CAPP	120	Introduction to Computers	3†	_____

or any CIT 3 credit hour course that has CAPP 120 as a prerequisite

NO MORE THAN 5 CREDITS OF COURSES NUMBERED 194 MAY BE APPLIED TOWARD THE DEGREE.

III. CONCENTRATION IN MATH AND SCIENCE--9 CREDITS

Students may choose coursework numbered 100 or above from any of the following discipline areas to complete the required 9 credits of electives. (BIO) (BIOB) (BIOM) Biology, (CHMY) Chemistry, (GEO) Geology, (M) Math** (except 090, 095, 096, 108, or 111), (PHYS) Physical Science

IV. ELECTIVES--17 CREDITS

Students may choose coursework numbered 100 or above from any discipline area to complete the required 17 credits of electives. Students may not choose or may not count the following courses: MATH 100, MATH 101, MATH 103, MATH 104, MATH 108, M 108, M 111, ENGL 118, ENGL 119, ENGL 120

TOTAL PROGRAM CREDITS - 60

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

ACCOUNTING

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Jon Nitschke

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $6050
Application Fee 30
Books/Supplies 2700
TOTAL $8780

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	101	Accounting Procedures I	3†	_____
CAPP	120	Introduction to Computers	3+	_____
BUS	106	Introduction to Business	3+	_____
WRIT	101**	College Writing I	3+	_____
M	108	Business Mathematics	4+	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	102*	Accounting Procedures II	3†	_____
ACTG	180*	Payroll Accounting	3†	_____
CAPP	156*	MS Excel	3+	_____
COMM	135	Interpersonal Communication	3+	_____
M	145	Math for Liberal Arts **OR**		
M	121**	College Algebra	3+	_____
		Subtotal	15	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	201*	Principles of Financial Accounting	3†	_____
ACTG	205*	Computerized Accounting	3†	_____
CAPP	158*	MS Access	3+	_____
CAPP	105*	Short Courses: Computer Calculators	1+	_____
		Electives	4+	_____
		Subtotal	14	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	202*	Principles of Managerial Accounting	3†	_____
ACTG	211*	Income Tax Fundamentals	3†	_____
BUS	255	Legal Environment	3+	_____
CAPP	154*	MS Word	3+	_____
WRIT	122	Introduction to Business Writing	3+	_____
		Subtotal	15	

SUGGESTED ELECTIVES

COURSE	NO.	TITLE	CREDITS	GRADE
BUS	230*	Management	3	_____
BUS	249	Global Marketing	3	_____
CAPP	112*	Short Courses: MS PowerPoint	1	_____
CIT	229*	Web Page Construction	3	_____
CIT	231*	Web Page Design	3	_____
CIT	280*	Desktop Publishing	3	_____
ECNS	201	Principles of Microeconomics	3	_____
ECNS	202	Principles of Macroeconomics	3	_____
STAT	216**	Introduction to Statistics	4	_____
		OR Other courses with advisor approval		

TOTAL PROGRAM CREDITS – 60~

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

AVIATION

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Ryan Haskins

Note: Program offered ONLY at the College of Technology in Bozeman

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

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

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

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

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

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

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6050
Application Fee	30
Flight Training	36574
Books/Supplies	1,500
TOTAL	$44154

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AST	141	Aviation Fundamentals	3+	_____
AST	142	Private Pilot Flight (50 flight hours)	2+	_____
AST	143	Basic Air Navigation	3+	_____
CAPP	120	Intro to Computers	3+	_____
M	145**	Math for Liberal Arts **OR**		
		any math course in the MUS General Ed Core	3+	_____
		Subtotal	14	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AST	171	Aircraft Systems	3+	_____
AST	241*	Advanced Navigation Systems	3+	_____
AST	242	Instrument Flight (75 Flight Hours)	2+	_____
AST	243*	Instrument/Commercial Theory I	3+	_____
AST	250	Aviation Operations	3+	_____
		Subtotal	14	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AST	245*	Instrument/Commercial Theory II	3+	_____
AST	252*	Commercial Flight (125 flight hours)	4+	_____
AST	261	Aviation Safety	3+	_____
COMM	135	Interpersonal Communication	3+	_____
PHYS	130	Fundamentals of Physical Science w/Lab	4+	_____
		Subtotal	14	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AST	260*	Flight Instructor Theory	3+	_____
AST	262*	Advanced Aircraft Theory	3+	_____
AST	263*	Aviation Regulations and Professional Conduct	3+	_____
AST	281*	Certified Flight Instructor flight **OPTIONAL**	1	_____
PHYS	110	Survey of Natural Science	3+	_____
WRIT	101**	College Writing I	3+	_____
		Subtotal	15-16	

TOTAL PROGRAM CREDITS - 60 OR 61~

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

BUSINESS ADMINISTRATION – ENTREPRENEURSHIP

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisors: Marilyn Besich & Teri Dwyer

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $6050
Application Fee 30
Books/Supplies 2800
TOTAL $8880

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	101	Accounting Procedures I	3†	_____
BUS	106	Introduction to Business	3†	_____
CAPP	120	Introduction to Computers	3†	_____
M	108	Business Mathematics	4†	_____
WRIT	101**	College Writing I	3†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	102*	Accounting Procedures II	3†	_____
ACTG	180*	Payroll Accounting	3†	_____
BUS	230*	Management	3†	_____
COMM	135	Interpersonal Communication	3†	_____
PSYX	100	Intro to Psychology	3†	_____
		Subtotal	15	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	201*	Principles of Financial Accounting	3†	_____
BUS	235*	Marketing	3†	_____
BUS	238*	Human Resource Management	3†	_____
CAPP	156*	MS Excel	3†	_____
M	145**	Math for Liberal Arts **OR**		
M	121**	College Algebra	3†	_____
		Subtotal	15	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	202*	Principles of Managerial Accounting	3†	_____
BUS	240*	Advertising	3†	_____
BUS	260*	Entrepreneurship	3†	_____
BUS	255*	Legal Environment	3†	
WRIT	122*	Intro to Business Writing	3†	_____
		Subtotal	15	

TOTAL PROGRAM CREDITS – 61~

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

BUSINESS ADMINISTRATION – MANAGEMENT

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisors: Marilyn Besich & Teri Dwyer

This program is designed to meet the diverse needs of 21st century managers by providing an in depth analysis of interrelated and multidisciplinary management constructs. It focuses on the development of organizational objectives, implementation of strategic initiatives, budget planning and financial analysis, delegation and empowerment, relationship management, employee supervision and performance evaluations. It includes development of "soft skills" such as business etiquette, emotional intelligence, social capital, and civic duties.

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $6050
Application Fee 30
Books/Supplies 2725
TOTAL $8805

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	101	Accounting Procedures I	3†	_____
CAPP	120	Introduction to Computers	3†	_____
BUS	106	Introduction to Business	3†	_____
WRIT	101**	College Writing I	3†	_____
M	108	Business Mathematics	4†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	102*	Accounting Procedures II	3†	_____
ACTG	180*	Payroll Accounting	3†	_____
BUS	230*	Management	3†	_____
COMM	135*	Interpersonal Communication	3†	_____
PSYX	100*	Introduction to Psychology	3†	_____
		Subtotal	15	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	201*	Principles of Financial Accounting	3†	_____
BUS	235*	Marketing	3†	_____
BUS	238*	Human Resource Management	3†	_____
CAPP	156*	MS Excel	3†	_____
M	145**	Math for Liberal Arts **OR**		
M	121**	College Algebra	3†	_____
		Subtotal	15	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	202*	Principles of Managerial Accounting	3†	_____
BUS	255*	Legal Environment	3†	_____
BUS	275*	Strategic Management	3†	_____
CAPP	154	MS Word	3†	_____
WRIT	122*	Intro to Business Writing	3†	_____
		Subtotal	15	

TOTAL PROGRAM CREDITS – 61~

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

BUSINESS FUNDAMENTALS

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisors: Marilyn Besich & Teri Dwyer

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $3025
Application Fee 30
Books/Supplies 1350
TOTAL $4405

MUS Student Health Insurance Premium approx $1600/year if needed

FIRST SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	101	Accounting Procedures I	3†	_____
CAPP	120	Introduction to Computers	3†	_____
BUS	106	Introduction to Business	3†	_____
WRIT	101**	College Writing I	3†	_____
M	108	Business Mathematics	4†	_____
		Subtotal	16	

SECOND SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	102*	Accounting Procedures II	3†	_____
ACTG	180*	Payroll Accounting	3†	_____
CAPP	154*	Microsoft Word	3†	_____
CAPP	156*	MS Excel	3†	_____
COMM	135	Interpersonal Communication	3†	_____
CAPP	105*	Short Courses: Computer Calculators	1†	_____
		Subtotal	16	

TOTAL PROGRAM CREDITS – 32~

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

CARPENTRY

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Patrick Schoenen

NOTE: This program is in moratorium and will not be accepting new students in 2010-2011, however, the CAS Carpentry program is still accepting new students. Please contact the Business and Technology department at 406-771-4391 for more information.

The Carpentry AAS degree program is designed to prepare students for entry-level employment at construction companies. The curriculum is aligned with the National Center for Construction Education and Research (NCCER) program curriculum. The training material is all standardized, competency-based, and task driven. The curricula are developed by the industry for the industry. Students will have the opportunity to earn national certification through NCCER for five of the five levels of NCCER curriculum. The student is then entered into a National Registry as having proven competence at the designated level. Program courses cover the basic to advanced fundamentals of:

- Safety, hand & power tools, & rigging;
- OSHA's 10 hr safety certification;
- Floor systems, wall, ceiling, & roof framing, windows & doors, basic stair layout, exterior finishes, roof applications, barriers, & metal studs, interior finishes;
- Welding for carpenters
- Concrete and its uses, foundations and flat work along with basic site layout protocol;
- Estimating and reading plans;
- Computer Aided Drafting (CAD);
- Intro to Business.

The program will take advantage of internship opportunities along with various hands on projects.

Students entering the program should have good manual dexterity skills, good physical condition, like to work outdoors in changing weather conditions and be comfortable working at varying heights.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Use construction skills in an entry-level residential or commercial construction job;
- Have possibilities of having the required apprenticeship time reduced;
- Utilize oral, written and listening skills to demonstrate an understanding of business practices and effectively interact with others.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6834
Application Fee	30
Lab Fee	800
Books/Supplies	840
TOTAL	$8504

FALL SEMESTER 1

COURSE	NO.	TITLE	CREDITS	GRADE
M	111	Technical Mathematics	3†	_____
CNST	115*	Construction Calculators & Estimating	1†	_____
CARP	120*	Carpentry Basics & Rough-in Framing	6†	_____
CARP	150*	Beginning Carpentry Practicum (90 hrs)	3†	_____
		Subtotal	16	

SPRING SEMESTER 1

COURSE	NO.	TITLE	CREDITS	GRADE
COMM	135	Interpersonal Communication	3†	_____
WRIT	095**	Developmental Writing **OR** higher	3-4†	_____
CNST	120*	Introduction to Site Layout & Concrete	3†	_____
CNST	150*	Construction Site Safety	2†	_____
CARP	130*	Exterior Finishing, Stair Construction & Metal Stud Framing	4†	_____
CARP	152*	Intermediate Carpentry Practicum (90 hrs)	3†	_____
		Subtotal	18-19	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CARP	240*	Summer Carpentry Internship (135-170 hrs)	3-6†	_____
		Subtotal	3-6	

FALL SEMESTER 2

COURSE	NO.	TITLE	CREDITS	GRADE
DRFT	156	Introduction to CAD	3†	_____
WELD	151*	Welding for Carpenters	2†	_____
CARP	230*	Advanced Roof, Floor, Wall, & Stair Systems	6†	_____
CARP	250*	Advanced Carpentry Practicum (90 hrs)	3†	_____
		Subtotal	14	

SPRING SEMESTER 2

COURSE	NO.	TITLE	CREDITS	GRADE
BUS	106	Introduction to Business	3†	_____
CNST	220*	Advanced Concrete Working	5†	_____
CARP	220*	Interior Finishing	5†	_____
CARP	252*	Capstone Carpentry Practicum (120 hrs)	4†	_____
		Subtotal	17	

TOTAL PROGRAM CREDITS – 68-72~

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

CARPENTRY

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Patrick Schoenen

MSU–Great Falls COT Carpentry program curriculum is aligned with the National Center for Construction Education and Research (NCCER). The training material is all standardized, competency-based, and task driven. The curricula are developed by the industry for the industry. Students will have the opportunity to earn national certification in various modules of the NCCER for two of the five levels of NCCER curriculum. The student then is entered into a National Registry as having proven competence in successfully completed modules.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Communicate effectively in a construction site environment.
- Demonstrate a working knowledge of construction site safety hand and power tools, and basic rigging.
- Perform entry level carpentry skills involved in rough framing.
- Perform entry level carpentry skills involved in exterior finishes, roofing applications, insulation and moisture barriers, metal studs, basic stair layout, installation of exterior doors and windows.
- Perform entry level carpentry skills involved in concrete and site layout protocol.
- Estimate materials necessary in the completion of the phases of construction being taught.
- Have completed experience which may reduce their on-the-job apprenticeship requirements.

Students entering the program should have good manual dexterity skills, good physical condition, like to work outdoors in changing weather conditions and be comfortable working at varying heights.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$3025
Application Fee	30
Lab Fees	400
Books/Supplies	790
TOTAL	$4245

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
M	111	Technical Mathematics	3†	_____
CSTN	100*	Fundamentals of Construction Technology	3†	_____
CSTN	115*	Construction Calculators & Estimating	1†	_____
CSTN	120*	Carpentry Basics & Rough-in Framing	5†	_____
CSTN	160*	Beginning Carpentry Practicum	3†	_____
		Subtotal	15	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
COMM	120*	Interpersonal Skills in the Workplace	1†	_____
WRIT	104**	Communication Skills in the Workplace	2†	_____
CSTN	171*	Site Prep, Found, & Concrete Installation	3†	_____
CSTN	135*	Basic Rigging	2†	_____
CSTN	145*	Exterior Finishing, Stair Construction, & Metal Stud Framing	4†	_____
CSTN	161**	Construction Concepts & Bldg Lab II	3†	_____
		Subtotal	15	

TOTAL PROGRAM CREDITS – 30~

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

COLLISION AND REFINISHING TECHNOLOGY

Certificate of Applied Science Degree

Advisor: Bob Ewen

The Collision and Refinishing Technology program 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 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.

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

OUTCOMES: GRADUATES ARE PREPARED TO:

- Identify and demonstrate proper safety practices and procedures;
- Formulate a repair plan based on currently accepted practices;
- Straighten and align damaged sheet metal panels;
- Prepare and apply accepted filler materials;
- Remove, align, and install bolt-on components;
- Execute proper sheet metal welding techniques;
- Repair modern automotive plastics and composites;
- Prepare a vehicle for spot or complete refinishing;
- Mix and apply modern automotive refinish materials;
- demonstrate a clear understanding of both written and verbal communication skills.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$3012
Application Fee	30
Clothing	100
Lab Fees	190
Tools	1600
Books/Supplies	585
TOTAL	$5517

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
TB	121	Intro to Collision Repair	4†	_____
TB	122*	Non-structural Collision Repair	4†	_____
WLDG	141*	Welding Sheet Metal	1†	_____
TB	123*	Intro to Refinishing	4†	_____
M	111*	Technical Mathematics	3†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
TB	221	Structural Collision Repair	6†	_____
TB	222*	Plastic and Composite Repair	3†	_____
TB	223*	Advanced Refinishing	4†	_____
WRIT	104*	Workplace Communications	2†	_____
COMM	120*	Communication Skills in the Workplace	1†	_____
		Subtotal	16	

TOTAL PROGRAM CREDITS - 32~

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

COMPUTER ASSISTANT

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Jeff Brown

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $3024
Application Fee 30
Books/Supplies 1050
TOTAL $4105

MUS Student Health Insurance Premium approx $1600/year if needed

FIRST SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	120	Introduction to Computers	3+	_____
CIT	229*	Web Page Construction	4+	_____
OMM	135	Interpersonal Communication	3†	_____
WRIT	101**	College Writing **OR**		
WRIT	122**	Intro to Business Writing	3†	_____
M	095**	Intermediate Algebra **OR**		
M	121**	College Algebra **OR**		
M	152**	Precalculus Algebra **OR**		
M	171**	Calculus I	3-4+	_____
		Subtotal	16-17	

SECOND SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	112*	Short Courses: MS Powerpoint	1†	_____
CAPP	154*	MS Word	3†	_____
ITS	280*	Computer Repair & Maintenance	4†	_____
CAPP	156*	MS Excel	3†	_____
CAPP	158*	MS Access	3†	_____
		Subtotal	14	

TOTAL PROGRAM CREDITS – 30-31~

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

COMPUTER INFORMATION TECHNOLOGY
MICROCOMPUTER SUPPORT

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Jeff Brown

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6050
Application Fee	30
Lab Fees	140
Books/Supplies	2150
TOTAL	$8370

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	120	Introduction to Computers	3+	_____
M	095**	Intermediate Algebra **OR**		
M	121**	College Algebra **OR**		
M	152**	Precalculus Algebra **OR**		
M	171**	Calculus I	3-4+	_____
WRIT	101**	College Writing I **OR**		
WRIT	122**	Intro to Business Writing	3+	_____
ITS	150*	CCNA 1: Exploration	3+	_____
ITS	152*	CCNA 2: Exploration	3+	_____
		Subtotal	15-16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ITS	210*	Network Operating Systems - Desktop	3+	_____
COMM	135	Interpersonal Communication	3†	_____
CAPP	158*	MS Access	3+	_____
ITS	250*	CCNA 3: Exploration	3+	_____
ITS	252*	CCNA 4: Exploration	3+	_____
		Subtotal	15	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CSCI	110*	Programming with Visual Basic I	3†	_____
CAPP	154*	MS Word	3+	_____
BUS	106	Introduction to Business	3+	_____
CIT	229	Web Page Construction	3+	_____
		Technical Electives***	2+	_____
		Subtotal	15	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ITS	280*	Computer Repair and Maintenance	4+	_____
CAPP	156*	MS Excel	3+	_____
ITS	298*	Internship/Cooperative Education	3†	_____
		Technical Electives***	5†	_____
		Subtotal	15	

TOTAL PROGRAM CREDITS – 60-61~

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

COMPUTER INFORMATION TECHNOLOGY
NETWORK SUPPORT

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Bruce Gottwig

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

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6050
Application Fee	30
Lab Fees	210
Books/Supplies	2100
TOTAL	$8390

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	120	Introduction to Computers	3+	_____
ITS	125	Fund of Voice and Data Cabling	3†	_____
ITS	150*	CCNA 1: Exploration	3†	_____
ITS	152*	CCNA 2: Exploration	3+	_____
M	095**	Intermediate Algebra **OR**		
M	121**	College Algebra **OR**		
M	152**	Pre-calculus Algebra **OR**		
M	171**	Calculus I	3/4+	_____
		Subtotal	15/16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ITS	210*	Network Operating Systems - Desktop	3†	_____
ITS	250*	CCNA 3: Exploration	3+	_____
ITS	252*	CCNA 4: Exploration	3+	_____
WRIT	122**	Intro to Business Writing **OR**		
WRIT	101**	College Writing I	3+	_____
ITS	280*	Computer Repair and Maintenance	4†	_____
		Subtotal	16	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
COMM	135	Interpersonal Communication	3+	_____
ITS	215*	Network Operating Systems – Dir Infrast.	4†	_____
ITS	260*	CCNP 1: Advanced Routing	4+	_____
CIT	XXX**	Technical Electives***	4+	_____
		Subtotal	15	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ITS	298*	Internship/Cooperative Education	3†	_____
ITS	217*	Network Operating System – Admin/Apps	4+	_____
ITS	264*	CCNP 3: Building Multilayer Switched Net	4†	_____
CIT	XXX**	Technical Electives***	4+	_____
		Subtotal	14	

TOTAL PROGRAM CREDITS – 60-61~

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

*** Technical electives must be approved by faculty advisor

COMPUTER INFORMATION TECHNOLOGY

WEB DESIGN

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Tim Paul

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $6050
Application Fee 30
Lab Fees 35
Books/Supplies 1875
TOTAL $7990

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
BUS	106	Introduction to Business	3†	_____
COMM	135	Interpersonal Communication	3†	_____
CAPP	120	Introduction to Computers	3+	_____
WRIT	101**	College Writing I **OR**		
WRIT	122**	Intro to Business Writing	3+	_____
M	095**	Intermediate Algebra **OR**		
M	121**	College Algebra **OR**		
M	152**	Pre-calculus Algebra **OR**		
M	171**	Calculus I	3-4†	_____
		Subtotal	15-16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CIT	272*	PC Troubleshooting & Main	4†	_____
CIT	166*	Computer Operating Systems	3+	_____
GDSN	109*	Digital Photography	4+	_____
GSDN	130*	Typography	3+	_____
		Subtotal	14	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ITS	150*	CCNA 1: Exploration	3†	_____
CSCI	110*	Programming with Visual Basic I	3†	_____
CAPP	158*	MS Access	3+	_____
GDSN	217*	Digital Design	3†	_____
CIT	229*	Web Page Construction	4†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CIT	231*	Web Page Design	3†	_____
CSCI	210*	Web Programming	3†	_____
CIT	222*	Capstone Portfolio	3†	_____
CIT	280*	Desktop Publishing	3†	_____
		Elective Option	3+	_____
		Subtotal	15	

SUGGESTED ELECTIVES

COURSE	NO.	TITLE	CREDITS	GRADE
CIT	206*	Database Management II	3†	_____
CIT	290*	New Web Technologies	3†	_____

TOTAL PROGRAM CREDITS – 60-61~

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

COMPUTER NETWORK INFRASTRUCTURE

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Bruce Gottwig

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $3924
Application Fee 30
Lab Fees 140
Books/Supplies 1050
TOTAL $5144

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	120	Introduction to Computers	3†	____
ITS	150*	CCNA 1: Exploration	3†	_____
ITS	152*	CCNA 2: Exploration	3+	_____
ITS	125*	Fund of Voice and Data Cabling	3†	_____
M	095**	Intermediate Algebra **OR**		
M	121**	College Algebra **OR**		
M	152 **	Pre-calculus Algebra **OR**		
M	171**	Calculus I	3/4†	_____
		Subtotal	15-16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
WRIT	122**	Intro to Business Writing **OR**		
WRIT	101**	Composition I	3+	_____
ITS	250*	CCNA 3: Exploration	3†	_____
ITS	280*	Computer Repair and Maintenance	4†	_____
ITS	252*	CCNA 4: Exploration	3†	_____
COMM	135	Interpersonal Communication	3†	_____
		Subtotal	16	

TOTAL PROGRAM CREDITS - 31-32~

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

COMPUTER SERVER ADMINISTRATION

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Bruce Gottwig

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

OUTCOMES: GRADUATES ARE PREPARED TO

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $4288
Application Fee 30
Lab Fees 70
Books/Supplies 1375
TOTAL $5763

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	120	Introduction to Computers	3+	_____
M	095**	Intermediate Algebra **OR**		
M	121**	College Algebra **OR**		
M	152**	Pre-calculus Algebra **OR**		
M	171**	Calculus I	3/4+	_____
ITS	215*	Network Operating Systems – Dir/Infrast.	4+	_____
ITS	150*	CCNA 1: Exploration	3+	_____
ITS	152*	CCNA 2: Exploration	3+	_____
		Subtotal	16-17	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ITS	224*	Introduction to Linux	4+	_____
ITS	217*	Network Operating Systems – Admin/Apps	4†	_____
ITS	210*	Network Operating Systems - Desktop	3†	_____
WRIT	122**	Intro to Business Writing **OR**		
WRIT	101**	College Writing I	3+	_____
COMM	135	Interpersonal Communication	3†	_____
		Subtotal	17	

TOTAL PROGRAM CREDITS – 33-34~

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

DENTAL ASSISTANT

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Robin Williams & Carmen Perry

Student Information and Application Packet:
http://www.msugf.edu/webs/Dental%20Assisting%20packet.pdf

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

The Dental Assistant program will:

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

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

Interested students must complete an application to the program (separate from the institution application) for program acceptance. These students must have already successfully (C- or better) completed M 065 (Pre-algebra) and WRIT 085 (Intro to College Reading/Writing) OR their equivalents OR are currently at the competency level for the program-required math and writing courses.

Following acceptance to the program, students complete three semesters concluding with a summer semester when the students are enrolled in clinical practice. Students will be required to purchase uniform attire and provide own transportation (and lodging, if applicable) to and from clinical site assignments.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$4537
Application Fee	30
Insurance	18
Uniforms	250
Lab Fees	390
Books/Supplies	1325
TOTAL	$6550

MUS Student Health Insurance Premium approx $1600/year if needed

The Dental Assistant program sequence is as follows:
(The student, however, may complete any or all of the general education coursework (non-DA) prior to entry to the Dental Assistant program, ie: M 90 or higher, WRIT 095 or higher, and/or COMM 135 or PSYX 100)

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

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
DA	115	Head, Neck & Oral Anatomy	4†	_____
DA	118	Dental Office Management	2†	_____
DA	120	Oral Radiology/Radiography I	3†	_____
DA	123	Chairside Theory and Practice I	4†	_____
DH	110	Theory of Infection Control and Dis. Prev.	1+	_____
WRIT	095**	Developmental Writing or higher	3-4†	_____
		Subtotal	17-18	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
DA	121*	Oral Radiology/Radiography II	2†	_____
DA	124*	Chairside Theory and Practice II	4†	_____
DA	150*	Dental Sciences/Preventive Dentistry	4†	_____
DA	165*	Dental Specialties	3†	_____
M	090**	Introductory Algebra **OR** higher	3-4†	_____
		Subtotal	16-17	

SUMMER TERM

COURSE	NO.	TITLE	CREDITS	GRADE
COMM	135	Interpersonal Communication **OR**		
PSYX	100	Intro to Psychology	3†	_____
DA	190*	Clinical Practice and Seminar	7†	_____
		Subtotal	10	

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

TOTAL PROGRAM CREDITS – 43-45~

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

DENTAL HYGIENE

ASSOCIATE OF APPLIED SCIENCE DEGREE

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

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

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$9075
Application Fee	30
Insurance	30
Lab/Program Fees	1050
Books/Supplies/Instruments	5500
TOTAL	$15685

MUS Student Health Insurance Premium approx $1600/year if needed

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

The MSU–Great Falls College of Technology's Dental Hygiene Program is a limited enrollment program, accepting 16 students each year. Interested students are urged to contact the Admissions Office and the Dental Hygiene Program Advisors for student advising specific to admission requirements and criteria for program acceptance.

PREREQUISITE COURSES

COURSE	NO.	TITLE	CREDITS	GRADE
BIO	213**	Anatomy & Physiology I/Lab	4†	_____
BIO	214*	Anatomy & Physiology II/Lab	4†	_____
BIOM	250*	Microbiology for Health Sciences/Lab	4†	_____
WRIT	101**	College Writing I	3†	_____
M	116**	Mathematics for Health Careers **OR**		
		Any math course in the MUS Core	3-4†	_____
CHMY	121*	Intro to General Chemistry/Lab **OR BOTH**		
CHMY	141*	College Chemistry I/Lab **AND**		
CHMY	143*	College Chemistry II/Lab	4-8†	_____
		Subtotal	22-27	

All prerequisite courses and dental hygiene program application must be completed by June 10th of the year prior to applying for enrollment into program. A grade of "C" or above must be achieved in all prerequisite & program courses to advance in the program and to graduate.

PROGRAM COURSE REQUIREMENTS

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
DH	101	Intro to Dental Hyg/Preclinic	2†	_____
DH	102	Intro to Dental Hyg/Preclinic Lab	2†	_____
DH	110	Theory of Infect Control & Dis. Prevention	1†	_____
DH	118	Oral Anatomy for Hygienists	3†	_____
DH	122	Oral Radiology /Lab	3†	_____
		Subtotal	11	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AH	140*	Pharmacology	2†	_____
DH	150	Clinical Dent Hyg Theory I	2†	_____
DH	151	Clinical Dent Hyg Practice I	4†	_____
DH	160	Periodontology I	3†	_____
DH	165	Oral Histology & Embryology	2†	_____
DH	123*	Radiographic Interpretation	1†	_____
DH	240	Local Anesthesia/		
		Nitrous Oxide Theory & Lab	2†	_____
		Subtotal	16	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
DH	220	Dental Nutrition Health	3†	_____
DH	201	Periodontology II	2†	_____
DH	210	Clinical Dent Hyg Theory II	2†	_____
DH	211	Clinical Dent Hyg Practice II	4†	_____
		Subtotal	11	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
COMM	130	Public Speaking **OR**		
COMM	135	Interpersonal Communication	3†	_____
DH	130	Dental Materials	2†	_____
DH	215	General and Oral Pathology	3†	_____
DH	241	Gerontology & Special		
		Needs Patients	2†	_____
DH	250	Clinical Dent Hyg Theory III	2†	_____
DH	251	Clinical Dent Hyg Practice III	5†	_____
		Subtotal	17	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
DH	230	Community Dental Health and Education	2†	_____
DH	235	Prof. Issues & Ethics in Dental Practice	2†	_____
DH	280	Clinical Dent Hyg Theory IV	1†	_____
DH	281	Clinical Dent Hyg Practice IV	5†	_____
PSYX	100	Intro to Psychology **OR**		
PSYX	230	Developmental Psychology	3†	_____
SOCI	101	Introduction to Sociology	3†	_____
		Subtotal	16	

TOTAL PROGRAM CREDITS – 93-98~

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

DESIGN DRAFTING TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Kirk Mattingly (Great Falls)
Tabby Jagger (Temporary - Bozeman)

NOTE: This program will be offered at the College of Technology in Bozeman and will accept new Bozeman students beginning Fall semester 2009.

This program will not be offered in Great Falls and will not accept new Great Falls students beginning summer semester 2009. Please contact the Business, Trades, and Technology division at 406-771-4391 for more information.

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

OUTCOMES: GRADUATES ARE PREPARED TO:

- Create detail and assembly drawings to American National Standards Institute (ANSI) standards on the drawing board;
- Create detail and assembly drawings using computer-aided design software (CAD);
- Create two-dimensional layouts from three-dimensional solid models using CAD software;
- Create a complete set of residential plans using CAD software;
- Create a site plan including topography using CAD software;
- Create thematic maps from GIS data; and
- Solve graphical problems using the principles of descriptive geometry.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6050
Application Fee	30
Lab/Program Fees	40
Books/Supplies	1875
TOTAL	$7995

FALL SEMESTER 1

COURSE	NO.	TITLE	CREDITS	GRADE
DRFT	120	Blueprint Reading	2†	_____
COMM	135	Interpersonal Communication	3†	_____
CAPP	120	Intro to Computers	3†	_____
DRFT	131	Technical Graphics I	4†	_____
M	152**	Precalculus Algebra	4†	_____
		Subtotal	16	

SPRING SEMESTER 2

COURSE	NO.	TITLE	CREDITS	GRADE
DRFT	132*	Descriptive Geometry	3†	_____
DRFT	156	Introduction to CAD	3†	_____
DRFT	140	Professional Practices	3†	_____
WRIT	101	College Writing I	3†	_____
M	153**	Precalculus Trigonometry	3†	_____
		Subtotal	15	

FALL SEMESTER 1

COURSE	NO.	TITLE	CREDITS	GRADE
DRFT	201*	Residential Drafting	3†	_____
DRFT	256*	3D CAD	3†	_____
ITS	280*	Comp Repair & Maintenance	4†	_____
MFGT	205	Manufacturing Processes	3†	_____
CET	173	Architectural Construction and Materials	3†	_____
		Subtotal	16	

SPRING SEMESTER 2

COURSE	NO.	TITLE	CREDITS	GRADE
DRFT	205*	Machine Drafting	3†	_____
DRFT	244*	Topographical Mapping & GIS Applications	3†	_____
DRFT	260	Aerospace Drafting	3†	_____
DRFT	261	Civil Drafting	3†	_____
DRFT	298	Internship	4†	_____
		Subtotal	16	

TOTAL PROGRAM CREDITS – 63~

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

EMERGENCY MEDICAL SERVICES (EMS) PROGRAM OFFERINGS:

- A.A.S. EMT-Paramedic degree
- C.A.S. EMT- Intermediate 99 degree
- Certificate Intermediate (EMT Basic + Intermediate classes)
- EMT-Basic
- Basic Life Support (CPR)
- ALS/BLS Refresher
- C.E.U. for EMT'S
- IV Therapy
- EMT REACH (satellite instruction) classes
- EMT-First Responder
- EMT Endorsements
- Critical Care (CCEMTP) licensed site

Course offerings are based on sufficient demand. See following pages or catalog descriptions, or call 406-268-3718, or e-mail jhenderson@msugf.edu.

EMT-INTERMEDIATE 99

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Joel Henderson

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

GRADUATES WILL BE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$3025
Application Fee	30
Insurance	12
Lab Fees	85
Books/Supplies	750
TOTAL	$3902

MUS Student Health Insurance Premium approx $1600/year if needed

STUDENTS START THE INTERMEDIATE SERIERS IN THE FALL OR THE SPRING AND COMPLETE INTERMEDIATE SERIES THE FOLLOWING SEMESTER, AS SHOWN BELOW WITH SEMESTER ONE AND SEMESTER TWO. STUDENTS MUST HAVE **APPROVAL BY PROGRAM DIRECTOR** PRIOR TO SIGNING UP FOR INTERMEDIATE COURSES AND HAVE A **CURRENT EMT BASIC CERTIFICAT CARD**. GENERAL EDUCATION CLASSES CAN BE TAKEN BEFORE, DURING, OR AFTER COMPLETION OF ACTUAL EMS INTERMEDIATE CLASSES.

GENERAL EDUCATION COURSES: (REQUIREMENT FOR THE C.A.S)

COURSE	NO.	TITLE	CREDITS	GRADE
M	116**	Mathematics for Health Careers	3+	_____
AH	140	Pharmacology	2†	_____
AHMS	142	Introduction to Medical Terminology	1†	_____
WRIT	095**	Developmental Writing	4†	_____
COMM	135	Interpersonal Communication	3†	_____
EMS	137	EMT-Basic	6†	_____
		Subtotal	19	

SERIES ONE (F,S) (MUST HAVE EMS 137 PRIOR TO STARTING INERMEDIATE CLASSES)

COURSE	NO.	TITLE	CREDITS	GRADE
EMS	140*	EMT - Intermediate I	4†	_____
EMS	155*	EMT - Intermediate II	3†	_____
EMS	222*	EMT - Intermediate I Clinical	1†	_____
		Subtotal	8	_____

SERIES TWO (S, SU)

COURSE	NO.	TITLE	CREDITS	GRADE
EMS	217*	EMT - Intermediate III	4†	_____
EMS	227*	EMT - Intermediate II Clinical	2†	_____
EMS	233*	EMT-Intermediate Internship	1+	_____
		Subtotal	7	_____

TOTAL PROGRAM CREDITS – 34~

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

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

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Joel Henderson

Emergency Medical Services (EMS) personnel play a primary role in providing care and transportation of the sick and injured in a pre-hospital setting. MSU–Great Falls offers an A.A.S degree for the EMT-Paramedic as well as a one semester EMT-Basic course and a one semester plus an internship EMT-I99 course.

Upon completion of each EMT course, students will be prepared to sit for the National Registry Certification Examination to gain licensure and begin a successful career as a pre-hospital care provider.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Provide appropriate care and transportation in both emergency and non-emergency settings;
- Effectively communicate with other medical personnel in oral, written or electronic form;
- Follow guidelines in maintaining confidentiality of patient information;
- Demonstrate correct patient assessment and appropriate intervention and care in medical emergencies including auto accidents, heart attacks, stroke, poisoning, childbirth, substance abuse, and others;
- Demonstrate proficiency in emergency medical skills such as CPR, airway control, oxygenation, wound care, splinting, and cervical spine immobilization;
- Safely and correctly use medical equipment and technologies in patient treatment;
- Demonstrate proficiency in utilizing pharmacological interventions as needed for appropriate patient care;
- Practice advanced cardiac life support including ECG interpretation of rhythms, use of algorhythms and cardiac pharmacology;
- Demonstrate proficiency in Pre-Hospital Trauma Life Support (PHTLS).

In addition to the above, upon completion of the EMT-Paramedic AAS degree program, students will add the following benefits:

OUTCOMES: GRADUATES ARE PREPARED TO:

- Increase opportunities for employment with national trending requirements for A.A.S Paramedic degree;
- Increase opportunities for advancement within place of employment.

ADMISSION REQUIREMENTS

- Formal acceptance to paramedic program classes is achieved through an application process. Access the following link for more information:

HTTP://TECHNOLOGY.MSUGF.EDU/PROGRAMS/HEALTHSCIENCES/EMERGENCY%20SERVICES/PARMEDICAPPLICATION.PDF

- General education requirements can be taken before, during, or after completion of core paramedic classes.

- **Student must be certified as an EMT-Basic prior to filling out an application.**
- The following are estimated fees and a suggested course of study; however students may enter in the fall, spring and summer for general education requirements.
- Applications for fall paramedic cohort may be turned in as early as Feb, 1st with a deadline of May 15th.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6834
Application Fee	30
Insurance	30
Lab Fees	295
Books/Supplies	1700
TOTAL	$8889

MUS Student Health Insurance Premium approx $1600/year if needed

GENERAL EDUCATION REQUIREMENTS

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	142	Intro to Med Terms	1†	_____
BIO	213**	Anatomy & Physiology I/Lab	4†	_____
WRIT	101**	College Writing I	3†	_____
EMS	137	EMT - Basic	6†	_____
M	116**	Mathematics for Health Careers	3†	_____
		Subtotal	17	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AH	140	Pharmacology	2†	_____
BIO	214*	Anatomy & Physiology II/Lab	4†	_____
COMM	135	Interpersonal Communication **OR**		
PSYX	100	Introduction to Psychology **OR**		
SOCI	101	Introduction to Sociology	3†	_____
		Electives	7	_____
		Subtotal	16	

START OF (FALL) COHORT, STUDENT HAS BEEN FORMALLY ACCEPTED AS A PARAMEDIC STUDENT.

SEMESTER ONE (FALL)

COURSE	NO.	TITLE	CREDITS	GRADE
EMS	102*	Fundamentals of Adv Care	3†	_____
EMS	105*	Paramedic I	3†	_____
EMS	110*	Paramedic I/II Skills Lab	2†	_____
EMS	115*	Paramedic II	3†	_____
EMS	120*	Paramedic I/II Clinical	3†	_____
EMS	145*	ACLS Preparation	1†	_____
		Subtotal	15	

SEMESTER TWO (SPRING)

COURSE	NO.	TITLE	CREDITS	GRADE
EMS	146	PALS Preparation	1†	_____
EMS	148	Pre-Hospital Trauma Life Sup	1†	_____
EMS	205*	Paramedic III	3†	_____
EMS	210*	Paramedic III/IV Skills Lab	2†	_____
EMS	220*	Paramedic III/IV Clinical/Field	4†	_____
EMS	225*	Paramedic IV	3†	_____
		Subtotal	14	

SUMMER SEMESTER (INTERNSHIP)

COURSE	NO.	TITLE	CREDITS	GRADE
EMS	233*	Internship	6†	_____

PROGRAM ADVISOR will work with student to choose appropriate electives; listed below are two possible elective tracks: a total of 7 electives are required.

ELECTIVE TRACK 1 (TAKEN AS A UNIT)

COURSE	NO.	TITLE	CREDITS	GRADE
EMS	140*	Intermediate I	4	_____
EMS	155*	Intermediate II	3	_____
EMS	217*	Intermediate III	4	_____
EMS	222*	Intermediate I Clinical	1	_____
EMS	227*	Intermediate II Clinical	2	_____
EMS	223*	EMT-Intermediate Internship	1	_____

ELECTIVE TRACK 2 (TAKEN AS A UNIT)

COURSE	NO.	TITLE	CREDITS	GRADE
PSC	194	Public Safety Comm. Terms & Report Writ.	1	_____
PSC	194	Stress and Crisis Intervention for PSC	1	_____
PSC	194	Public Safety Communications Skill	2	_____
PSC	194	Clinical for PSC Professionals	1	_____
PSC	194	Legal Responsibility, Ethics, & Law for PSC	3	_____

TOTAL PROGRAM CREDITS – 68~

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

EMERGENCY SERVICES
FIRE AND RESCUE TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: John Culbertson

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

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

The Fire and Rescue Technology Option is offered as a cooperative endeavor between Montana State University - Great Falls College of Technology and Montana State University Fire Services Training School–Great Falls.
The availability of on-line classes through MSU–Great Falls COT will allow firefighters to complete general education degree requirements without having to relocate to Great Falls.

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

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

A residency of 7 credit hours must be taken to MSU–Great Falls to qualify for degree.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $3025
Application Fee 30
Lab Fees 25
Fire Training School ..... up to 6000
Books/Supplies 1050
TOTAL $10130

MUS Student Health Insurance Premium approx $1600/year if needed

GENERAL EDUCATION REQUIREMENTS

COURSE	NO.	TITLE	CREDITS	GRADE
COMM	135	Interpersonal Communication	3†	_____
WRIT	122**	Intro to Business Writing	3†	_____
M	---**	090 or higher	3-4†	_____
PHYS	130	Fund of Physical Science with Lab	4†	_____
PSYX	100	Intro to Psychology	3†	_____
		Subtotal	16-17	

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

TECHNICAL EDUCATION REQUIREMENTS

COURSE	NO.	TITLE	CREDITS	GRADE
EMS	137	EMT Basic	6†	_____
FRS	101	Firefighter I	5†	_____
FRS	102*	Firefighter II	5†	_____
FRS	112*	Fire Inspection & Investigation	3†	_____
FRS	241	Fire Department Internship	3†	_____
FRS	245*	Fire Service Training & Safety Education	2†	_____
FRS	250*	Building Construction	2†	_____
FRS	265*	Incident Management & Safety	3†	_____
FRS	270*	Tactical Operations and Company Management	5†	_____
FRS	285*	Hazardous Materials	5†	_____
		Subtotal	39	

TECHNICAL ELECTIVES – 6 CREDITS REQUIRED

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	120	Introduction to Computers	3	_____
FRS	107	Aircraft Fire & Rescue	3	_____
FRS	291	Hydraulics & Water Supplies	3	_____
FRS	290	Wildland Fire Protection	3	_____

S-215: Fire Operations in the Urban Interface
S-290: Intermediate Fire Behavior
S-336: Fire Suppression Tactics

TOTAL PROGRAM CREDITS – 62-63~

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

GRAPHIC DESIGN

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Tim Paul

OUTCOMES: GRADUATES ARE PREPARED TO:

- Create appropriate typographic solutions for a variety of applications and situations;
- Decide the correct medium (printed materials, packages, manufacturing and fabrication techniques, environments, websites, kiosks, or virtual environments) based on use and overall intended effect on the viewer;
- Utilize aesthetics (principles of organization, composition, color, hierarchy, balance, contrast, emphasis, depth, rhythm, use of symbolism and overall level of craft in execution) to create an emotional impact;
- Maintain a structured approach to creative process development (research, observation, analysis, prototyping, testing, evaluation) while remaining flexible and adapting to changing circumstances and parameters and gibing rigorous and unfailing attention to detail;
- Work with diverse teams (clients, audiences, content providers, researchers, administrative personnel) in an intense collaborative environment;
- Persuade clients, creative directors, sponsors and colleagues to go along with a plan, and deliver the results of the plan on time;
- Ask precise questions, convert research into design strategy, and successfully evaluate and discuss their own design efforts and the efforts of others.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6038
Application Fee	30
Lab Fees	45
Books/Supplies	2225
TOTAL	$8338

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ART	101	Intro to Visual Art	3†	_____
ART	140	Drawing I	3†	_____
BUS	106	Intro to Business	3†	_____
CAPP	120	Introduction to Computers	3†	_____
WRIT	122*	Intro to Business Writing	3†	_____
GDSN	100	Intro to Graphic Design Seminar	1†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ART	114	Art Fundamentals	3†	_____
BUS	240*	Advertising	3†	_____
COMM	135	Interpersonal Communication	3†	_____
GDSN	109*	Digital Photography	4†	_____
GDSN	130*	Typography	3†	_____
		Subtotal	16	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
BUS	235*	Marketing	3†	_____
GDSN	217*	Digital Graphic Design	3†	_____
GDSN	220*	Digital Illustration & Packaging	3†	_____
M	108**	Business Mathematics	4†	_____
CIT	229*	Web Page Construction	3†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CIT	231*	Web Page Design	3†	_____
CIT	280*	Desktop Publishing	3†	_____
GDSN	221*	Publishing and Pre-Press	3†	_____
GDSN	222*	Capstone Portfolio/Internship	3†	_____
		Elective Option	3†	_____
		Subtotal	15	

SUGGESTED ELECTIVES

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	158*	MS Access	3†	_____
CSCI	210*	Web Programming	3†	_____
CIT	290*	New Web Technologies	3†	_____

TOTAL PROGRAM CREDITS – 63~

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

HEALTH INFORMATION CODING SPECIALIST

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Lynn Ward

This program is offered completely on-line.

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

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

OUTCOMES: GRADUATES ARE PREPARED TO:

- Use computer applications and software in maintaining health information in health records.
- Research and rely on knowledge in correct medical terminology, anatomy and physiology, pharmacology, and disease processes.
- Identify and apply accurate diagnostic and procedural codes for reimbursement.
- Exhibit professional communication skills in oral, written, and electronic formats.
- Maintain confidentiality of health information while developing a commitment to adhering to the standards of professional integrity, honesty, and fairness.
- Interact professionally in the healthcare environment with healthcare providers, patients/clients, and the public while understanding diversity among cultures and societies.
- Apply knowledge of health information technology to solve problems while utilizing critical thinking skills.

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

A grade of "C-" or above must be achieved in all courses to advance in the program and to graduate. Students must complete several prerequisite courses prior to completing some program courses. Students are strongly encouraged to schedule a meeting with the program director after admission into the college.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$4537
Application Fee	30
Lab/Program Fees	75
Books/Supplies	1875
TOTAL	$6517

MUS Student Health Insurance Premium approx $1600/year if needed

NOTE: Curriculum is based on a full time schedule.

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	144*	Medical Terminology	3†	_____
AH	180*	Basic Pharmaceuticals	1+	_____
BIO	127*	Anatomy and Physiology for Non-Clinical	4+	_____
CAPP	120*	Introduction to Computers	3†	_____
		Subtotal	11	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	105*	Healthcare Delivery	2†	_____
AHMS	156*	Medical Billing Fundamentals	4+	_____
AHMS	201*	Medical Science	3+	_____
AHMS	108*	Health Data Content and Structure	3+	_____
AHMS	162*	Beginning Diagnosis Coding	3+	_____
AHMS	160*	Beginning Procedural Coding	3†	_____
		Subtotal	18	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
WRIT	122*	Introduction to Business Writing	3†	_____
M	090*	Introductory Algebra **OR**		
M	108*	Business Math **OR higher**	4+	_____
PSYX	100*	Introduction to Psychology **OR**		
SOCI	101*	Introduction to Sociology **OR**		
COMM	135*	Interpersonal Communication	3+	_____
AHMS	214*	Diagnosis Coding	3+	_____
AHMS	212*	Procedural Coding	3+	_____
AHMS	298A*	HICS/Coding – Professional Practice Exp	2+	_____
		Subtotal	18	

****Recommended Course: CCA Exam Preparatory Course****

TOTAL PROGRAM CREDITS – 47~

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

HEALTH INFORMATION TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Lynn Ward

This program is offered completely on-line.

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

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

OUTCOMES: GRADUATES ARE PREPARED TO:

- Use computer applications and software in maintaining health information in health records.
- Research and rely on knowledge in medical terminology, anatomy and physiology, pharmacology, and disease processes.
- Identify and apply accurate diagnostic and procedural codes for reimbursement.
- Exhibit professional communication skills in oral, written, and electronic formats.
- Maintain confidentiality of health information, while developing a commitment to adhering to the standards of professional integrity, honesty and fairness.
- Interact professionally in the healthcare environment with healthcare providers, patients/clients and the public, while understanding diversity among cultures and societies.
- Analyze qualitative and quantitative information, including graphic numerical and verbal data.
- Apply knowledge of health information technology to solve problems, while utilizing critical thinking skills.

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

A grade of "C- "or above must be achieved in all courses to advance in the program and to graduate. Students must complete several prerequisite courses prior to completing some program courses. Students are strongly encouraged to schedule a meeting with the program director after admission into the college.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$7562
Application Fee	30
Lab Fees	75
Books/Supplies	2575
TOTAL	$10242

MUS Student Health Insurance Premium approx $1600/year if needed

NOTE: Curriculum is based on a full time schedule. The courses listed below do not have to be taken in the specified order. However, if you do take them in this order, it will ensure that you have completed all prerequisites for each course. And, since not every course is offered every semester, it will ensure that you do not have to delay graduation because a certain course is not offered when you decide to take it.
** Please note that if you attend part-time and/or require remediation courses in Math and/or English, it will take longer to complete your program.

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	120	Introduction to Computers	3†	_____
AHMS	105	Healthcare Delivery	2†	_____
AHMS	144	Medical Terminology	3†	_____
BIO	127	Anatomy & Physiology I for non-clinical majors	4†	_____
WRIT	122**	Introduction to Business Writing	3+	_____
		Subtotal	15	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AH	180	Basic Pharmaceuticals	1†	_____
AHMS	108*	Health Data Content and Structure	3†	_____
AHMS	201*	Medical Science	3†	_____
BIO	128*	Anatomy & Physiology II for non-clinical majors	3†	_____
AHMS	158*	Legal and Regulatory Aspects of Healthcare	3†	_____
		Subtotal	13	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
COMM	135	Interpersonal Communication **OR**		
PSYX	100	Introduction to Psychology **OR**		
SOCI	101	Introduction to Sociology	3+	_____
M	090**	Introductory Algebra **OR**		
M	108**	Business Math **OR higher**	4+	_____
		Subtotal	7	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	162*	Beginning Diagnosis Coding	3+	
AHMS	227*	Health Information Management	3†	_____
AHMS	280*	Overview of Health Informatics Systems	4†	_____
AHMS	156*	Medical Billing Fundamentals	4+	
AHMS	208*	Healthcare Statistics	2†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	160*	Beginning Procedural Coding	3†	_____
AHMS	245*	Simulated Lab – Medical Support	2+	_____
AHMS	214*	Diagnosis Coding	3†	_____
AHMS	240*	Clinical Quality Assessment	3†	_____
AHMS	288*	HIT Exam Preparation	3†	_____
AHMS	298*	HIT – Professional Practice Experience **OR**		
AHMS	298A*	HIT – Professional Practicum – Coding	2†	_____
*Plus a 1 credit Independent Study to supplement PPE in the field of HIT				
		Subtotal	16	

TOTAL PROGRAM CREDITS – 67~

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

INTERIOR DESIGN

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Julie Myers (Great Falls) & Patricia Nelson (Bozeman)

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

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

OUTCOMES: GRADUATES ARE PREPARED TO:

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6056
Application Fee	30
Lab Fee	130
Books/Supplies	2500
TOTAL	$8716

MUS Student Health Insurance Premium approx $1600/year if needed

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

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
DE	161	Introduction to Design	3†	_____
DE	162	Interior Design Graphics	3†	_____
DE	164	Historic Interiors	3†	_____
DE	166	Textiles & Interior Finishes	3†	_____
CAPP	120	Intro to Computers	3+	_____
		Subtotal	15	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
DE	163*	Presentation Drawing	3†	_____
DE	165*	Contemporary Interiors	3†	_____
DE	168*	Space Planning	3†	_____
DE	264*	Light, Color, Lighting Systems	3†	_____
DE	273*	CAD for Interior Design	4†	_____
		Subtotal	16	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
COMM	135	Interpersonal Communication	3†	_____
DE	261*	Field Study	3-5†	_____
		Subtotal	6-8	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
DE	262*	Studio I	4+	_____
DE	270*	Kitchen and Bath I	3+	_____
WRIT	101**	College Writing I	3+	_____
CET	173	Architectural Construction & Materials	3+	_____
		Electives	3+	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
DE	263*	Studio II	4†	_____
DE	265*	Professional Practices	3†	_____
DE	271*	Kitchen & Bath II	3†	_____
M	108**	Business Mathematics	4†	_____
		Electives	2+	_____
		Subtotal	16	

SUGGESTED ELECTIVES (6 CREDITS REQUIRED)

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	101	Accounting Procedures I	3	_____
ART	101	Intro to Visual Arts	3	_____
ART	140	Drawing I	3	_____
BUS	106	Introduction to Business	3	_____
BUS	220*	Sales	3	_____
WRIT	122**	Intro to Business Writing	3	_____
CIT	280*	Desktop Publishing	3	_____
DRFT	256*	3-D CAD	3	_____
PSYX	100	Introduction to Psychology	3	_____
SOCI	101	Introduction to Sociology	3	_____

TOTAL PROGRAM CREDITS – 69-71~

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

MEDICAL ASSISTANT

ASSOCIATE OF APPLIED SCIENCE DEGREE

Interim Advisor: Deborah Newton

Medical Assistants are specially trained to work in ambulatory medical settings such as physicians' offices, clinics, and surgical centers. These multi-skilled allied health personnel can function in both administrative and clinical areas. (The Program Director is currently working on program accreditation through the American Association of Medical Assistants (AAMA). Upon graduation from an accredited program, students are eligible to sit for the certifying examination through the AAMA.)

OUTCOMES: GRADUATES ARE PREPARED TO:

- Perform many "front office" tasks including insurance billing, bookkeeping, and scheduling appointments and procedures.
- Collect and prepare laboratory specimens and perform basic laboratory tests.
- Perform diagnostic tests, such as suture removal, electrocardiography, and "back office" duties.
- Assist in patient care: screen patients, take vital signs, assist with office procedures, and patient exams.
- Administer medications applying pharmacology principles; maintain medical and immunization records under medical provider's supervision.
- Respond to and initiate written communications in a professional manner to patients and medical facilities.
- Follow legal guidelines in maintaining documentation and patient records and understand and apply HIPPA guidelines in the office setting.
- Utilize computer software competently for various medical office functions.

Estimated Resident Program Cost:

Tuition and Fees	$6834
Application Fee	30
Lab Fee	130
Books/Supplies	2400
TOTAL	$9394

MUS Student Health Insurance Premium approx $1600/year if needed

PREREQUISITE SKILLS:

Students wishing to enter the Medical Assistant program are strongly advised to be proficient in keyboarding and typing.

Completion of the Health Science Orientation is required.
A grade of "C-" or above must be achieved in all courses to advance and graduate from the program.

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
ACTG	101	Accounting Procedures I	3†	_____
AHMS	144	Medical Terminology	3†	_____
COMM	135	Interpersonal Communication	3†	_____
CAPP	120	Introduction to Computers	3†	_____
WRIT	122**	Intro to Business Writing	3†	_____
		Subtotal	15	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
BIO	127**	Anatomy & Physiology I nonclinical	4†	_____
AHMS	158*	Legal and Regulatory Aspects of Healthcare	3†	_____
M	116**	Math for Health Careers	3†	_____
AHMS	220	Medical Office Procedures	3†	_____
AH	140*	Pharmacology	2†	_____
		Subtotal	15	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
BIO	128*	Anatomy & Physiology II nonclinical	3†	_____
AHMA	201*	Med Asst Clinical Procedures 1	4†	_____
CAPP	154*	MS Word	3†	_____
AHMS	156*	Medical Billing Fundamentals	4†	_____
		Subtotal	14	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	255*	Medical Transcription I	3†	_____
AHMA	203*	Med Asst Clinical Procedures 2	4†	_____
PSYX	100	Introduction to Psychology	3†	_____
AHMS	201*	Medical Science	3†	_____
		Subtotal	13	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMA	280*	Medical Assisting Exam Prep	1†	_____
AHMA	298*	Medical Assisting Externship	4†	_____
AH	120	IV Therapy	1†	_____
		Subtotal	6	

TOTAL PROGRAM CREDITS – 63~

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

MEDICAL BILLING SPECIALIST

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Deborah Newton

This program is offered completely on-line.

The Medical Billing Specialist works in a variety of settings including medical management organizations, physician offices, hospitals, clinics, group practices, billing companies, and education. Students in this Certificate program are trained as entry-level billing specialists.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Abstract information from patient records for reimbursement purposes;
- Use current ICD and CPT coding appropriately;
- Complete ''clean" claims, CMS/UB-92, for private insurances and government programs such as TRICARE, Medicare, Medicaid, and Worker's Compensation;
- Analyze explanations of benefits (EOBs) and Remittance Advice (RA) forms and post to patient accounts;
- Amend incorrect claims, appeal claims that did not pay correctly, and trace outstanding claims;
- Understand and work within HIPPA guidelines for medical facilities; and
- Interact and communicate with other healthcare workers in a professional manner, following medicolegal and ethical standards.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$4537
Application Fee	30
Lab/Program Fees	75
Books/Supplies	1725
TOTAL	$6367

MUS Student Health Insurance Premium approx $1600/year if needed

Students wishing to enter the Medical Billing Specialist program are strongly advised to be proficient in keyboarding and typing.

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

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	144	Medical Terminology	3†	_____
BIO	127	Anatomy and Physiology I for non-clinical major	4†	_____
CAPP	120	Introduction to Computers	3†	_____
AHMS	108*	Health Data Content and Structure	3†	_____
AHMS	156*	Medical Billing Fundamentals	4†	_____
		Subtotal	17	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	201*	Medical Science	3†	_____
AHMS	158*	Legal & Regulatory Aspects of Healthcare	3†	_____
AHMS	160*	Beginning Procedural Coding	3†	_____
AHMS	162*	Beginning Diagnosis Coding	3†	_____
M	---**	090 or Higher	4†	_____
AHMS	252*	Computerized Medical Billing	3†	_____
		Subtotal	19	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
WRIT	122**	Introduction to Business Writing	3†	_____
AHMS	298B*	Internship in Medical Billing/Coding	1-3†	_____
PSYX	100	Introduction to Psychology **OR**		
SOCI	101	Introduction to Sociology	3†	_____
		Subtotal	7-9	

TOTAL PROGRAM CREDITS – 43-45~

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

MEDICAL BILLING AND CODING SPECIALIST

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Deborah Newton

This program is offered completely on-line.

Health information coding is the transformation of verbal descriptions of diseases, injuries, and procedures into alphanumeric designations used for data retrieval, analysis and claims processing. The billing/coding specialist works in a variety of settings including medical management organizations, physician offices, hospitals, clinics, group practices, billing companies, and education. Students in this program are trained as entry-level billing/coding specialists.

Upon completion of the Billing/Coding program, students will be prepared to begin successful careers as reimbursement specialists in a variety of healthcare settings. In addition, students are prepared to sit for the National Certified Coding Associate Exam.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Abstract information from patient records for reimbursement purposes.
- Research and rely on knowledge of correct medical terminology, anatomy and physiology, and disease processes to assign appropriate codes according to national and international guidelines.
- Complete clean claims for private and government insurances.
- Analyze Explanations of Benefits and Remittance Advice forms and take appropriate action.
- Use computer applications and software specific to the billing/coding environment.
- Maintain confidentiality of health information and adhere to regulations pertaining to privacy laws and guidelines.
- Professionally interact in the healthcare environment with healthcare providers, patients/clients and the public.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6834
Application Fee	30
Lab/Program Fees	75
Books/Supplies	2100
TOTAL	$9039

MUS Student Health Insurance Premium approx $1600/year if needed

Students wishing to enter the Medical Billing/Coding Specialist program are strongly advised to be proficient in keyboarding.

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

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	105	Healthcare Delivery	2+	_____
AHMS	144	Medical Terminology	3+	_____
BIO	127	Anatomy and Physiology I for non-clinical majors	4+	_____
CAPP	120	Introduction to Computers	3†	_____
M	---**	090 or Higher	4†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AH	180	Basic Pharmaceuticals	1+	_____
AHMS	201*	Medical Science	3+	_____
BIO	128*	Anatomy and Physiology II for non-clinical majors	3+	_____
AHMS	160*	Beginning Procedural Coding	3+	_____
AHMS	162*	Beginning Diagnosis Coding	3+	_____
		Subtotal	13	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	108	Health Data Content and Structure	3	_____
AHMS	214*	Intermediate Diagnosis Coding	3	_____
AHMS	212*	Intermediate Procedure Coding	3	_____
AHMS	280*	Overview of Health Informatics	4†	_____
AHMS	156*	Medical Billing Fundamentals	4†	_____
		Subtotal	17	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	158*	Legal & Regulatory Aspects	3†	_____
AHMS	252*	Computerized Medical Billing	3†	_____
AHMS	245*	Simulated Laboratory	2†	_____
WRIT	122**	Intro to Business Writing	3†	_____
PSYX	100	Introduction to Psychology OR		
SOCI	101	Introduction to Sociology	3†	_____
		Subtotal	14	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	298B*	Internship in Billing/Coding	1-3†	_____
		Subtotal	1-3	

TOTAL PROGRAM CREDITS -61-63~

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

MEDICAL TRANSCRIPTION

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Deborah Newton

This program is offered completely on-line.

Medical Transcriptionists are part of the healthcare team, working primarily with medical documents and reports. Upon completion of the program, students have the skills and knowledge necessary to perform as entry-level transcriptionists.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Use current word processing software efficiently and effectively, including developing and utilizing macros and shortcuts.
- Use medical language appropriately and understand anatomy, physiology, pharmacology, pathophysiology, laboratory tests, and diagnostic tests.
- Spell, proofread, and use correct grammar, punctuation, and syntax in medical reports.
- Understand HIPPA and follow guidelines to protect patient confidentiality and patient records.
- Transcribe reports for a variety of specialty areas, thereby increasing understanding of medical language and procedures for those specialty areas.
- Practice transcribing reports from doctors who are not native English speakers.
- Use medical references appropriately and efficiently, particularly the Book of Style.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6050
Application Fee	30
Books/Supplies	2075
TOTAL	$8155

MUS Student Health Insurance Premium approx $1600/year if needed

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

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	144	Medical Terminology	3†	_____
CAPP	120	Introduction to Computers	3†	_____
WRIT	101**	College Writing I	3†	_____
M	090**	Introduction to Algebra **OR**		
M	108**	Business Mathematics	4†	_____
TASK	090	Introductory Keyboarding	3†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
BIO	127	Anatomy & Physiology I for non-clinical majors	4†	_____
AHMS	108*	Health Data Content and Structure	3†	_____
AHMS	255*	Medical Transcription I	3†	_____
PSYX	100	Introduction to Psychology **OR**		
SOCI	101	Intro to Sociology	3†	_____
AHMS	158*	Legal and Regulatory Aspects of Healthcare	3+	_____
		Subtotal	13	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
BIO	128*	Anatomy & Physiology II for non-clinical majors	3†	_____
AHMS	156*	Medical Billing Fundamentals	4†	_____
AHMS	256*	Medical Transcription II	3†	_____
CAPP	154*	MS Word	3†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	118	Health Care Personnel and Supervision	2†	_____
AH	180	Basic Pharmaceuticals	1†	_____
AHMS	201*	Medical Science	3†	_____
WRIT	122**	Intro to Business Writing	3+	_____
AHMS	257*	Medical Transcription III	3†	_____
		Subtotal	12	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	258*	Medical Transcription Practicum	3†	_____

TOTAL PROGRAM CREDITS - 60~

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

MEDICAL TRANSCRIPTION

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Deborah Newton

This program is offered completely on-line.

Medical Transcriptionists are part of a health care team, working primarily with medical documents and reports. The College currently offers a Certificate of Applied Science program and an AAS degree. Both programs provide students with skills and knowledge necessary to perform as entry-level transcriptionists.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Use medical language appropriately and understand anatomy, physiology, pharmacology, pathophysiology, laboratory tests, and diagnostics tests.
- Spell, proofread, and use correct grammar, punctuation, and syntax in medical reports.
- Understand HIPPA and follow guidelines to protect patient confidentiality and patient records.
- Transcribe, format, and edit the most common medical reports: progress notes, history and physical reports, consultations, discharge summaries, and operative reports.
- Use medical references appropriately and efficiently, particularly the Book of Style

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $3026
Application Fee 30
Books/Supplies 1500
TOTAL $4556

MUS Student Health Insurance Premium approx $1600/year if needed

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

FALL SEMESTER

Course	No.	Title	Credits	Grade
AHMS	144	Medical Terminology	3†	_____
BIO	127	Anatomy and Physiology I for non-clinical majors	4†	_____
CAPP	120	Introduction to Computers	3†	_____
M	090**	Introductory Algebra **OR**		
M	108**	Business Mathematics	4†	_____
TASK	090	Introductory Keyboarding	3†	_____
		Subtotal	17	

SPRING SEMESTER

Course	No.	Title	Credits	Grade
WRIT	101**	College Writing I	3†	_____
AHMS	158*	Legal & Regulatory Aspects of Healthcare	3†	_____
AHMS	255*	Med Transcription I	3†	_____
CAPP	154*	Microsoft Word	3†	_____
PSYX	100	Introduction to Psychology **OR**		
SOCI	101	Intro to Sociology	3†	_____
		Subtotal	15	

FALL SEMESTER

Course	No.	Title	Credits	Grade
AHMS	256*	Med Transcription II	3†	_____
AHMS	201	Medical Science	3+	_____
		Subtotal	6	

TOTAL CREDITS – 38~

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

Transition to the Associate of Applied Science (AAS) Degree:

The Medical Transcription Certificate program is designed to train entry-level Medical Transcriptionists. The curriculum can be completed online so that students across the state can take advantage of this opportunity. However, the Medical Transcription profession is complex, and students should recognize the need for continuing education, even as they begin their careers. The Associate of Applied Science degree in Medical Transcription provides that opportunity.

All courses from the certificate program transfer into the AAS program. Students who continue into the AAS degree program in Medical Transcription must take an additional semester of Anatomy and Physiology to increase their understanding of human body structures and functions. In addition, students in the AAS program have the opportunity to increase computer skills, understand the entire medical record, and expand English skills - all essential to their continued success as Medical Transcriptionists. Students should discuss their long-term goals with the Program Director to determine the best course of study. The AAS degree can also be completed online

PHARMACY TECHNICIAN

PROFESSIONAL CERTIFICATE – Online (except for on-site clinical)

Advisor: Deborah Richerson

As a pharmacy technician, you help licensed pharmacists provide medication and other health care products to patients. Technicians usually perform routine tasks to help prepare medication, such as counting tablets and labeling bottles. They also perform administrative duties, such as answering phones, stocking shelves, and operating cash registers. Any questions regarding prescriptions, drug information, or health matters are referred to the pharmacist. When you complete this program you will have the skills and knowledge required for an entry-level pharmacy technician position and will be prepared to take the national certification exam. Courses are online with an on-site clinical component and can be completed in as little as one, 16-week semester.

JOB OPPORTUNITIES:

About 72 percent of pharmacy technicians work in retail pharmacies that are independently owned or part of a drugstore chain, grocery store, department store, or mass retailer. The other 18 percent are employed in hospitals and a small proportion work in mail-order and Internet pharmacies, offices of physicians, pharmaceutical wholesalers, and the federal government.

The U.S. Bureau of Labor and Statistics predicts the employment of pharmacy technicians to increase by 32 percent from 2006 to 2016, which is much faster than the average for all occupations. The 2008 median hourly wage in Montana was $13.78/hr with a median annual salary of $24, 289.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Practice as qualified, licensed pharmacy technicians working with pharmacists to provide medication and other healthcare products to patients.
- Demonstrate positive work ethic, professionalism and appropriate interpersonal skills whether in a hospital, clinical or retail setting.
- Demonstrate knowledge of medical terminology, ethics, pharmacology and healthcare delivery methods pertaining to pharmacy law, practice and calculations.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$1506
Application Fee	30
Books/Supplies	375
Program Fees	6
TOTAL	$1917

MUS Student Health Insurance Premium approx $1600/year if needed

The Pharmacy Technician program is a limited enrollment program accepting up to 23 students each year. If you are interested, you must apply for entry to the program. Questions about application criteria should be directed to the Extended Learning Division.

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	105	Healthcare Delivery	2†	_____
PHL	221	Intro to Philosophy & Biomed Ethics	3+	_____
AH	140*	Pharmacology	2†	_____
AHMS	144*	Medical Terminology	3†	_____
AH	180	Basic Pharmaceuticals	1+	_____
PHA	194	Intro to Pharmacy Practice, Law, & Calc	4+	_____
PHA	194	Hospital and Community Pharmacy Practice	2+	_____
		Subtotal	17	

TOTAL PROGRAM CREDITS - 17~

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

PHYSICAL THERAPIST ASSISTANT

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Brad Bechard & Charlene Marshall

The formal portion of the Physical Therapist Assistant (PTA) program begins fall semester with a limited enrollment of 16 students. There are 32 credits of pre-requisite courses which may take one year or longer to complete. All pre-requisite coursework must be completed with a grade of "C-" or higher. The student must apply for acceptance into the formal portion of the PTA program and be accepted. A grade of "76%" "C-" or "pass" is required for all coursework within the PTA program after formal acceptance.

The formal portion of the PTA program is challenging and consists of fall, spring, and summer semesters; taking one full year. This time includes built-in clinical experiences which may or may not be in the Great Falls area. Upon completion of the PTA program, the graduate is prepared to take the National Physical Therapist Assistant Examination (NPTAE) provided by the Federation of State Boards of Physical Therapy and must receive a passing score in order to become a licensed PTA. Licensure is required to practice as a physical therapist assistant in Montana and is overseen by the State of Montana Board of Physical Therapy Examiners.

The PTA program is designed to graduate individuals who are knowledgeable, competent, self-assured, adaptable, and service-oriented patient/client care providers performing their duties within the ethical and legal guidelines of the physical therapy profession as an entry-level PTA having successfully passed the NPTAE. Graduates are prepared to work in a variety of healthcare settings including acute care, outpatient, rehabilitation, and extended care.

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

OUTCOMES: GRADUATES ARE PREPARED TO:

- Demonstrate a combination of critical thinking skills, intervention, documentation, patient safety awareness, confidentiality, and ethical guidelines under the direction and supervision of a licensed physical therapist as outlined in the Guide to Physical Therapy Practice.
- Effectively demonstrate in the areas of education, communication, and provision of skilled interventions towards various special populations in regards to their cultural and individual needs.
- Address an area of need within the PTA scope of practice utilizing audio/visual aids and demonstration to accommodate different learning styles of the patient or community.
- Apply mathematical/statistical knowledge to help augment learning experiences through current healthcare literature and research. and
- Display a commitment to lifelong learning, ongoing professional development, and high quality care in the realm of physical therapy practice.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $7562
Application Fee 30
Lab/Program Fees 484
Insurance 24
Books/Supplies 2600
TOTAL $10700

MUS Student Health Insurance Premium approx $1600/year if needed

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

- Students applying to get into this program must apply and be accepted by the College for general admission.
- Have completed high school physics AND chemistry (students without high school coursework in these areas should consult the PTA Program Director as to the appropriate college courses needed to meet this requirement)
- Have completed a minimum of 40 hours of observation at physical therapy clinics/facilities with a licensed physical therapist or physical therapist assistant in at least 2 different settings (including acute and/or rehab care observation time); observation forms are available at http://www.msugf.edu
- Show proof of computer literacy (students without high school coursework in this areas should consult the PTA Program Director as to the appropriate college courses needed to meet this requirement)
- Earn a Grade Point Average of 2.5 or higher on pre-requisite courses
- Earn a grade of "C-" or higher in all pre-requisite courses
- Provide three completed "Recommendation Forms" or reflection paper with PTA Application
- Provide completed "Application Packet Cover & Check-off Sheet" with PTA Application
- Provide completed "Application Self-Evaluation Form" with PTA Application
- Potential applicants should ensure immunizations and CPR training requirements are met. Submission of proof of immunizations, 2 PPDs, Hepatitis B vaccinations, and CPR certification is required after formal acceptance to the PTA Program.

PREREQUISITE COURSES

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	144	Medical Terminology	3+	_____
SOCI	101	Introduction to Sociology	3†	_____
BIO	213**	Anatomy & Phys I Lecture/Lab	4†	_____
BIO	214*	Anatomy & Phys II Lecture/Lab	4†	_____
COMM	135	Interpersonal Communication	3†	_____
WRIT	101**	College Writing I	3†	_____
PSYX	100	Introduction to Psychology	3†	_____
PSYX	230	Developmental Psychology	3†	_____
PTA	105	Intro to Physical Therapy	3+	_____
		Subtotal	32	

Program Course Requirements After Formal Acceptance

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
PTA	101*	Physical Therapist Assisting I/Lab	5†	_____
PTA	205*	Anatomy & Kinesiology for the PTA/Lab	6+	_____
PTA	206*	Pathophysiology for the PTA	3+	_____
PTA	218*	Therapeutic Exercise for the PTA	2+	_____
PTA	210*	Clinical Experience I (4-week) ~ 160 hours	3†	_____
		Subtotal	19	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
PTA	201*	Physical Therapist Assisting II/Lab	5+	_____
PTA	213*	Neurorehabilitation for the PTA/Lab	6†	_____
PTA	215*	Introduction to Orthopedics/Lab	4†	_____
PTA	220*	Clinical Experience II (4-week) ~ 160 hours	3†	_____
		Subtotal	18	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
PTA	225*	Seminar & Project in PTA	3†	_____
PTA	230*	Clinical Experience III (8-week) ~ 320 hours	5†	_____
		Subtotal	8	

TOTAL PROGRAM CREDITS – 77 ~

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

PTA	205*	Anatomy & Kinesiology for the PTA/Lab	6†

PRACTICAL NURSE

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisors: Cheryll Alt, Patti Kercher & Cindy Schultz

The Practical Nurse program prepares individuals to function as entry-level practical nurses with the ability to give safe, effective nursing care. The Practical Nurse program at Montana State University - Great Falls College of Technology is currently approved by the Montana State Board of Nursing.

Upon completion of the Associate of Applied Science Degree in Practical Nursing, students will be prepared to begin a successful career as a practical nurse. Students are prepared to sit for the national licensure examination for practical nursing.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Administer effective and ethical individual patient care.
- Communicate professionally with all medical and supportive staff.
- Integrate bio-psychosocial and scientific principles while providing technically competent care in a variety of healthcare settings.
- Work in a variety of health care settings such as hospitals, ambulatory care, physician's offices, home healthcare, dialysis, assisted living facilities, and other geriatric environments.
- Promote lifelong learning fostering the development of professional growth, critical thinking, and leadership.
- Demonstrate knowledge of the major health problems affecting our society.

The Practical Nurse program is a limited enrollment program. Interested students must apply for entry into the program. An application packet is available on the program website and from the Health Science Program Assistant. The length of the program is three consecutive semesters. Accepted students will be required to provide proof of Health Care Provider CPR certification, negative Tuberculosis test, and complete the Student Immunization and Verification form before the beginning of the fall semester. Computer skills are highly recommended.

The Hepatitis B immunization series is strongly recommended before entrance into the program. A student may be denied access to clinical rotations without an adequate Hepatitis B titer. Students having religious or personal conflicts against receiving Hepatitis B vaccine must sign a release form.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$7562
Application Fee	30
Insurance	30
Lab/Program Fees	391
Books/Supplies	2025
Uniforms	225
TOTAL	$10263

MUS Student Health Insurance Premium approx $1600/year if needed

PREREQUISITE COURSEWORK

The following courses must be completed prior to admission into the Practical Nurse Program. All prerequisite course work must be completed with a minimum grade of "C-" in each course and a minimum cumulative GPA in prerequisite course work of 2.0. Grades in prerequisite courses are a major factor in ranking applications for program acceptance.

FIRST SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
BIO	213**	Anatomy & Physiology I/Lab	4†	_____
CHMY	121*	Introduction to General Chemistry/ Lab	3/1†	_____
M	121**	College Algebra	3†	_____
NRSG	100	Introduction to Nursing	1†	_____
		Subtotal	12	

SECOND SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AH	219*	Nutrition & Diet Therapy	2†	_____
BIO	214*	Anatomy & Physiology II/Lab	4†	_____
WRIT	101**	College Writing I	3†	_____
PSYX	100	Intro to Psychology	3†	_____
		Subtotal	12	

Science courses must be completed within five (5) years of application to the program and other courses must be completed within 15 years of applying to the Practical Nurse Program.

PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE

Once enrolled in nursing courses, a minimum of a grade of "C-" in all courses is required to continue in the program. In the clinical setting, students must achieve a grade of 75% in all rotations of each clinical experience.

The courses listed below are required in the program of study for the Associate of Applied Science degree in Practical Nursing. The courses are offered at MSU–Great Falls College of Technology in the following sequence:

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
NRSG	130*	Fundamentals of Nursing	7†	_____
NRSG	135*	Nursing Pharmacology	3†	_____
NRSG	138*	Gerontology for Nursing	2†	_____
		Subtotal	12	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
NRSG	140*	Adult Nursing	7†	_____
NRSG	142*	Maternal Child Nursing	3†	_____
NRSG	144*	Mental Health Nursing	2†	_____
		Subtotal	12	

SUMMER TERM

COURSE	NO.	TITLE	CREDITS	GRADE
NRSG	148*	Leadership Issues	2†	_____
		Subtotal	2	

SUGGESTED ELECTIVES

COURSE	NO.	TITLE	CREDITS	GRADE
AH	120*	IV Therapy	1	_____

* This class is a highly recommended addition to the standard nursing curriculum. It will provide you with IV certification which many employers value or require for employment.

TOTAL PROGRAM CREDITS - 50~

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

PUBLIC SAFETY COMMUNICATIONS

PROFESSIONAL CERTIFICATE

Advisor: Deb Richerson

PUBLIC SAFETY COMMUNICATIONS
PROFESSIONAL CERTIFICATE (GENERAL) – ONLINE (except for on-site clinical requirement)

The Public Safety Communications (PSC) professional certification imparts a technical edge to those applying for employment as a PSC professional (such as a 9-1-1 dispatcher). The professional certificate may be used as proof of required training before taking the Montana Law Enforcement Academy equivalency test (required for PSC professionals after and within one year of hire). Individual PSC courses may be taken by anyone who is interested in brushing up on skills needed in their profession or by students needing coursework for the EMT-Paramedic Associate of Applied Science degree. Individuals who specifically need coursework in order to take the MLEA equivalency test should enroll in the PSC professional certificate program. A criminal fingerprint background check is required for the PSC Clinical Course and is also a requirement for employment as a PSC professional. Felony convictions (and some misdemeanor convictions) will exclude a person from employment as a PSC professional. This professional certification does not guarantee employment as a PSC professional. Students wishing to be employed as a PSC Professional must meet minimum requirements for hiring as set by the Peace Officers Standards and Training council.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Have a knowledge and understanding of PSC terminology and report writing
- Have a knowledge and understanding of stress and crisis intervention strategies
- Have a knowledge and understanding of PSC communication skills, interpersonal communication skills
- Have a knowledge a and understanding of legal responsibilities, ethics and criminal and civil law practices
- Have a general knowledge and understanding of computers, computer applications

ADVANCED PUBLIC SAFETY COMMUNICATIONS
PROFESSIONAL CERTIFICATION WITH EMT-BASIC

The Public Safety Communications Professional Certificate may be completed with the EMT- Basic class. This advanced professional certificate will benefit students who are interested in the Emergency Medical Services (EMS) field but who do not want to go into the EMS program. This certificate provides valuable field experience for those interested in the Public Safety Communications profession. The Public Safety Communications Professional Certificate with EMT-Basic allows students to sit for the Montana and National Registry certification exams as well as the MLEA challenge test for dispatchers. Requirements for completing the Public Safety Communications Professional Certificate with EMT-Basic include completion of the requirements for the general Public Safety Communications Professional Certificate along with the completion of a 6-credit Emergency Medical Technician course (EMS 137). EMS 137 is the nationally recommended minimum level of training for ambulance personnel and is considered the desired level of medical training by many fire departments. The equivalency test can only be taken after being hired as a PSC professional and must be taken at the Montana Law Enforcement Academy in Helena, MT.

OUTCOMES: GRADUATES ARE PREPARED TO:

- All of the above General Outcomes plus;
- Have a greater knowledge and understanding of Emergency Medical Training received through completing the EMT-Basic course

PREREQUISITES:

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

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

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$1512
Application Fee	30
Books/Supplies	425
TOTAL	$1967

MUS Student Health Insurance Premium approx $1600/year if needed

PUBLIC SAFETY COMMUNICATIONS
PROFESSIONAL CERTIFICATE (GENERAL)

COURSE	NO.	TITLE	CREDITS	GRADE
PSC	194	PSC Terminology and Report Writing	1†	_____
PSC	194	Stress and Crisis Intervention for PSC	1†	_____
PSC	194	PSC Skill	2†	_____
PSC	194	Clinical for PSC	1†	_____
PSC	194	Legal Responsibility, Ethics, Criminal	1†	_____
		and Civil Law for PSC	3†	_____
COMM	135	Interpersonal Communication	3†	_____
CAPP	120	Introduction to Computers	3†	_____
		Subtotal	14	

ADVANCED PUBLIC SAFETY COMMUNICATIONS
PROFESSIONAL CERTIFICATE WITH EMT-BASIC

COURSE	NO.	TITLE	CREDITS	GRADE
PSC	194	PSC Terminology and Report Writing	1†	_____
PSC	194	Stress and Crisis Intervention for PSC	1†	_____
PSC	194	PSC Skill	2†	_____
PSC	194	Clinical for PSC	1†	_____
PSC	194	Legal Responsibility, Ethics, Criminal	1†	_____
		and Civil Law for PSC	3†	_____
COMM	135	Interpersonal Communication	3†	_____
CAPP	120	Introduction to Computers	3†	_____
EMS	137	EMT Basic	6†	_____
		Subtotal	20	

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

RADIOLOGIC TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisors: Greg Paulauskis & Tom Liston

Radiologic Technologists, also referred to as Radiographers, work in a professional environment at a hospital, private office, or clinic. Radiologic Technologists are trained to perform radiologic examinations in accordance with radiation safety standards for themselves, clinical staff and their patients. Skill sets include: patient care, positioning, operating X-ray equipment, film quality assessment, technical factors, and interacting with the general public, ancillary workers, healthcare workers, and physicians.

The Radiologic Technology student learns how to accurately demonstrate body structures by determining proper exposure factors, manipulating medical imaging equipment, evaluating the radiographic image quality; and providing for patient protection, safety, and comfort during radiographic procedures. Some technologists choose to specialize in computed tomography, magnetic resonance imaging, mammography, ultrasound, nuclear medicine, positron emission tomography or radiation therapy. Some of these modalities require additional certification. The student will be introduced to these specialty areas. Radiologic Technology is an expanding field in the area of medical diagnosis and treatment. Imaging methods and procedures are updated and implemented on a regular basis.

The Radiologic Technology Program is a two-year program designed to prepare individuals with the knowledge, skills, and professional attitude necessary for successful employment as a Radiologic Technologist.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Employ professional judgment, problem solving, and critical thinking to identify, assess, and analyze the situation providing quality patient care in a safe and ethical manner.
- Demonstrate effective interpersonal skills through verbal and written communication.
- Practice within the standards established by the profession.
- Demonstrate appropriate cultural, legal, ethical, and professional values.
- Practice as a qualified registered technologist in any type of patient care facility.

Accreditation for the Radiologic Technology Program is through Northwest Commission on Colleges and Universities coursework. This regional accrediting agency is the organization that accredits MSU–Great Falls College of Technology. After completion of the program the graduate is eligible to take a nationally recognized certification examination administered by the American Registry of Radiologic Technologist (ARRT).

In seeking admission into the program, the student is required to complete the requirements of the Radiologic Technology Program Student Information and Application Packet. The Packet can be printed from the Program website.

Students in the Radiologic Technology Program must earn a "C-" or better in ALL classes in the two-year program. Any grade less than a "C-" in any class will result in the student having to retake that class.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$9075
Application Fee	30
Insurance	30
Books/Supplies	1925
TOTAL	$11,060

MUS Student Health Insurance Premium approx $1600/year if needed

Computer skills, Anatomy and Physiology I & II, and Chemistry are highly recommended.

DEGREE COMPLETION OPTION

Students who have successfully completed and documented that they graduated from an accredited Radiologic Technology program and possess a current Radiologic Technologist State license may apply to the College's Radiologic Technology AAS Degree Completion program and earn an Associate of Applied Science degree by taking all of the prerequisite courses listed below. A residency of 13 credit hours must be taken at MSU–Great Falls to qualify for completion. For more information contact Admissions or the Program Director of the Radiologic Technology Program.

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

PREREQUISITE COURSES

COURSE	NO.	TITLE	CREDITS	GRADE
AHMS	142	Intro to Medical Terminology	1†	_____
BIO	202**	Human Anatomy for RAD Tech	3†	_____
COMM	135	Interpersonal Communication	3†	_____
WRIT	101**	College Writing I	3†	_____
M	116**	Math for Health Careers **OR**		
M	121**	College Algebra **OR higher**	3-4†	_____

PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE

The courses below are to be taken in the order that they are listed. Admission into the Radiologic Technology program is mandatory to qualify to take the courses below.

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

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHXR	105	Intro to Radiologic Technology	2†	_____
AHXR	130	Radiographic Positioning/Procedures I	2†	_____
AHXR	132	Elements of Imaging I	3†	_____
AHXR	225	Radiobiology/Radiation Protection	3†	_____
AHXR	195A	Radiographic Clinical I	7†	_____
		Subtotal	17	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHXR	131*	Radiographic Positioning/Procedures II	3†	_____
AHXR	133*	Elements of Imaging II	3†	_____
AHXR	101*	Patient Care in Radiology	2†	_____
AHXR	195B*	Radiographic Clinical II	8†	_____
		Subtotal	16	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHXR	298*	Radiographic Internship	8†	____
		Subtotal	8	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHXR	230*	Radiographic Positioning/Procedures III	4†	_____
AHXR	233*	Elements of Imaging III	2†	_____
AHXR	295A*	Radiographic Clinical III	8†	_____
		Subtotal	14	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHXR	231*	Radiographic Positioning/Procedures IV	2†	_____
AHXR	295B*	Radiographic Clinical IV	10†	_____
AHXR	270	Radiographic Registry Review	2†	_____
		Subtotal	14	

TOTAL PROGRAM CREDITS - 82-83~

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

RESPIRATORY CARE

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Leonard Bates

Most people take breathing for granted. It's second nature, an involuntary reflex. But for the thousands, who suffer from breathing problems, each breath is a major accomplishment. Those people include patients: with chronic lung problems, such as asthma, bronchitis, and emphysema; heart attack and accident victims; premature infants; and people with cystic fibrosis, lung cancer, and AIDS.

In each case the patient will likely receive treatment from a Respiratory Therapist (RT) under the direction of a physician. RTs work to evaluate, treat and care for patients with breathing disorders. They are a vital part of a hospital's lifesaving response team that answers patient emergencies.

While most RTs work in hospitals, an increasing number have branched out into alternative care sites, such as nursing homes, physicians' offices, home health agencies, specialized care hospitals, medical equipment supply companies, and patients' homes.

RTs perform both diagnostic and therapeutic procedures, such as:

- Obtaining and analyzing sputum and breath specimens;
- Take blood specimens and analyze them to determine levels of oxygen, carbon dioxide, and other gases;
- Interpreting data obtained from specimens;
- Measuring the capacity of patients lungs to determine if there is impaired function;
- Performing studies on the cardiopulmonary system;
- Studying disorders of people with disruptive sleep patterns;
- Operating mechanical ventilators for patients who cannot breath adequately;
- Delivering inhaled medications and medical gases;
- Teaching patients with lung disorders to maintain meaningful and active life systems.

RTs work collaboratively with other health care practitioners. Critical thinking and problem solving skills are mandatory for success in this environment. Strong verbal and written communication skills are necessary when interacting with other members of the multidisciplinary health care team as well as the patients and families. Such a role also requires a broad educational background in English composition, communication, and interpersonal relations. Computer literacy is especially important in today's health care environment.

The RT Program is a two-year program designed to help students develop the knowledge, skills and professional attitude necessary for a successful career in RT. Upon completion of the AAS degree in RT, graduates will be prepared to begin a career as an Advanced Practitioner RT. Graduates are eligible to take the National Board for Respiratory Care (NBRC) Entry Level and the Advanced Practitioner examinations.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Practice as a registered RT in the healthcare delivery system;
- Comply with standards-of-practice, and ethical code of the American Association for Respiratory Care;
- Apply critical thinking and problem solving skills to patient care.
- Demonstrate effective verbal and written communication as well as good interpersonal skills; and
- Safely and correctly utilize current technology and equipment in the practice of Respiratory Care.

The RT program is accredited by the Commission on Accreditation of Respiratory Care Programs.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees $9075
Application Fee 30
Lab/Program Fees.....540
Insurance 36
Books/Supplies 1975
TOTAL $11656

MUS Student Health Insurance Premium approx $1600/year if needed

PRE-RESPIRATORY COURSES AND SKILLS

Background in basic science and math is essential to prepare applicants to succeed in the RT program.

Prior to admission to the RT program students must have completed high school chemistry and demonstrate computer literacy. (Students without high school courses should consult the RT Program Director about the appropriate college coursework to meet this requirement.)

Prior to formal program acceptance, the applicant must successfully complete all of the program prerequisites with a minimum grade of "C-".

PREREQUISITE COURSES

COURSE	NO.	TITLE	CREDITS	GRADE
BIO	213**	Anatomy & Physiology I/Lab	4†	_____
WRIT	101**	College Writing I	3†	_____
M	116**	Mathematics for Health Careers **OR**		
M	121**	College Algebra	3†	_____
COMM	135	Interpersonal Communication **OR**		
PSYX	100	Introduction to Psychology **OR**		
PSYX	230	Developmental Psychology	3†	_____
		Subtotal	13	

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

Program Course Requirements After Formal Acceptance

A grade of "C-" or above must be earned in all required courses to continue in and graduate from the program. CPR is a prerequisite for entrance into clinical courses. Each student is required to sign a clinical contract defining their professional responsibilities and behavior and must complete two to four weeks of clinic outside of Great Falls during the summer semester.

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
BIO	214*	Anatomy & Physiology II/Lab	4†	_____
RC	150	Respiratory Care	3†	_____
RC	155	Respiratory Physiology	3†	_____
RC	170	Resp Tech & Procedures I	5†	_____
		Subtotal	15	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
RC	140*	Resp Care Clinic I	3†	_____
RC	171*	Resp Techn & Procedures II	5†	_____
RC	180*	Ventilator Management	2†	_____
RC	255*	Pulmonary Assessment	3†	_____
		Subtotal	13	

SUMMER SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
RC	141*	Resp Care Clinic II	4†	_____
RC	260*	Neonatal Respiratory Care	3†	_____
		Subtotal	7	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
EMS	145*	ACLS Preparation	1†	_____
RC	240*	Resp Care Clinic III	4†	_____
RC	245*	Resp Care Clinical Seminar I	1†	_____
RC	250*	Hemodynamic Monitoring	4†	_____
RC	275*	Pulmonary Disease	2†	_____
		Subtotal	12	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AH	140	Intravenous Therapy	1†	_____
EMS	146	Pediatric Advanced Life Support	1†	_____
RC	241*	Resp Care Clinic IV	5†	_____
RC	246*	Resp Care Clinical Seminar II	1†	_____
RC	265*	Resp Care in Alternative Sites	1†	_____
RC	273*	Pulmonary Function Testing	1†	_____
RC	280*	Supervisory Management	2†	_____
		Subtotal	12	

TOTAL PROGRAM CREDITS - 72~

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

SURGICAL TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

Advisor: Sandra Allen

NATIONALLY RECOGNIZED AS "PAE ELITE TWENTY PROGRAM"

What is a Surgical Technologist? Surgical Technologists, often referred to as "scrub nurse", "scrub tech" or "operating room tech", are integral members of the operating room team. Their role includes assisting the physician during surgery by preparing and handling instruments, equipment, supplies and medications.

Job Opportunities: Surgical Technologists usually work within the operating room itself which may offer specialization in specific fields such as orthopedics, plastics, ENT, ophthalmic or cardiovascular. However technologists may qualify for work within various medical fields such as: dental assistants, veterinary assistants, procurement technicians and instrument processing technicians without much more education than on the job training. As medical technology advances, so do the opportunities for the working surgical technologist.

Curriculum: The curriculum is designed as hybrid courses of lab, classroom, online instruction and surgery clinicals to provide theoretical foundations of operating room techniques. The student will learn skills in a competency-based clinical lab and apply learned skills in the clinical facilities. Within the operating room, the student will observe, and then participate in a supervised position. The student will then be expected to advance to a high level of independence by their internship.

Students who enter the program are required to rotate through clinical sites. Some clinical rotations are outside of the Great Falls area. Transportation and housing costs are the responsibility of the student.

Upon completion of the Surgical Technology Program, students will be prepared to begin a career as a surgical technologist. Students are prepared to sit for the national examination to become a Certified Surgical Technologist (CST).

The Surgical Technology Program will meet or exceed Accreditation Review Committee on Education in Surgical Technology (ARC-ST) benchmark standards on student retention, CST exam results, graduate job placement, employer satisfaction, and graduate satisfaction.

OUTCOMES – GRADUATES ARE PREPARED TO:

- Work with surgeons, anesthesiologists, nurses, and other health professionals in providing direct or indirect patient care while demonstrating positive work ethic, professionalism and appropriate interpersonal skills in the surgical setting.
- Practice professional, value directed actions based on didactic and clinical knowledge, ethical principles and legal standards as a member of the surgical team.
- Organize surgical instrumentation, supplies, and equipment in an efficient manner while utilizing principles of aseptic technique for physical preparation and maintenance of the surgical environment.
- Perform under pressure in stressful and emergency surgical situations.
- Demonstrate understanding of biomedical sciences and technology as they apply to the patient focused events that occur in the operating room.

Application and Registration: The Surgical Technology Program has a limited number of students per year due to clinical space and various other factors. This requires the student to complete a conditional application one semester prior to the semester they plan to begin the program. Program begins only in the spring semester. Please call for an appointment to obtain this application from the Program Director.

For more detailed information please visit :
www.msugf.edu/Catalog/2009_2010/Programs/SurgTech.html

Program Accreditation: This program is nationally accredited through CAAHEP, the Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756, 727-210-2350, mail@caahep.org in collaboration with the Accreditation Review Committee on Education in Surgical Technology (ARC-ST).

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$6050
Application Fee	30
Lab/Program Fees	582
Insurance	24
Books/Supplies	2050
TOTAL	$8736

MUS Student Health Insurance Premium approx $1600/year if needed

PREREQUISITE COURSES

COURSE	NO.	TITLE	CREDITS	GRADE
BIO	213**	Anatomy & Physiology I with lab	4†	_____
PSYX	100	Introduction to Psychology	3†	_____
COMM	135	Interpersonal Communication	3†	_____
AHMS	144	Medical Terminology	3†	_____
BIOM	250*	Microbiology for Health Sciences/Lab	4†	_____
M	090**	Introductory Algebra **OR** higher	4†	_____
WRIT	095**	Developmental Writing **OR** higher	3†	_____
		Subtotal	24	

PROGRAM COURSE REQUIREMENTS AFTER FORMAL ACCEPTANCE

The courses below are to be taken in the order that they are listed. Admission into the Surgical Technology program is mandatory to qualify to take the courses below. Contact Program Director for application materials

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

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
PHL	221	Intro to Philosophy and Biomedical Ethics	3†	_____
BIO	214*	Anatomy & Physiology II with lab	4†	_____
AHST	101*	Introduction to Surgical Technology	3†	_____
AHST	215*	Surgical Lab I	3†	_____
AHST	154*	Surgical Pharmacology	3†	_____
		Subtotal	16	

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHST	200*	Operating Room Techniques	5†	_____
AHST	201*	Surgical Procedures I	4†	_____
AHST	215*	Surgical Lab II	3†	_____
AHST	250*	Surgical Clinical	4†	_____
		Subtotal	16	

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

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
AHST	202*	Surgical Procedures II	5†	_____
AHST	251*	Surgical Clinical II	5†	_____
AHST	298*	Surgical Internship	5†	_____
		Subtotal	15	

TOTAL PROGRAM CREDITS – 71 ~

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

SUSTAINABLE ENERGY TECHNICIAN

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisor: Jason Harding

The Sustainable Energy Technician Certificate of Applied Science program prepares students for operation and maintenance jobs in the rapidly expanding sustainable energy industry. Program graduates have general skills in industrial safety, electrical troubleshooting, hydraulic and pneumatic system operation, and mechanical system repair. These skills are built on a strong educational foundation in math, writing, communications, and computing.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Identify and practice safe workplace habits.
- Demonstrate familiarity with basic electrical tools and the ability to troubleshoot a basic electrical system.
- Demonstrate familiarity with basic mechanical tools and the ability to repair a basic mechanical system.
- Demonstrate a basic understanding of hydraulic and pneumatic systems.
- Demonstrate the ability to use personal computers and common operating systems and applications software.
- Develop and practice professional standards of workplace communication and interpersonal skills.

PARTNERSHIPS:

This program was developed as a workforce development project funded by the Department of Labor's Community-Based Jobs Training Grant program. Project partners include the Wind Montana project industrial advisory board and four units of the Montana University System: Montana Tech College of Technology, Montana State University-Northern, Montana State University-Billings College of Technology, and Montana State University-Great Falls College of Technology. The program is available on all four campuses.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$3025
Application Fee	30
Lab Fees	500
Books/Supplies	500
TOTAL	$4055

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
SET	101	Introduction to Sustainable Energy	3+	_____
EET	120	AC/DC Electronics I	3†	_____
M	111*	Technical Mathematics	3†	_____
SET	102	Industrial Safety and Rigging	3+	_____
WRIT	104**	Workplace Communication	2+	_____
SET	103	Fundamentals of Mechanical Systems	3+	_____
		Subtotal	17	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
CAPP	120	Introduction to Computers	3+	_____
EET	121	AC/DC Electronics II	3†	_____
ELEC	130	Electric Motors and Generators	3†	_____
SET	104	Fundamentals of Hydraulic/Pneumatic Sys	3+	_____
COMM	120	Interpersonal Communication	3+	_____
		Subtotal	15	

TOTAL PROGRAM CREDITS – 32~

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

WELDING TECHNOLOGY

CERTIFICATE OF APPLIED SCIENCE DEGREE

Advisors: Kyle Gillespie (Great Falls) & David Cohenour (Bozeman)

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

Upon completion of this program, students are eligible to apply to be listed in the AWS National Registry of Welders.

OUTCOMES: GRADUATES ARE PREPARED TO:

- Meet safety requirements.
- Produce welds in all positions that meet industry standards using the following process(es):
  - Shielded Metal Arc Welding (SMAW)
  - Gas Metal Arc Welding (GMAW)
  - Flux Cored Arc Welding (FCAW)
- Make cuts that meet industry standards in the following process(es):
  - Plasma Arc Cutting (PAC)
  - Air Carbon Arc Cutting (CAC-C)
- Understand the use of measuring instruments and their purpose.
- Understand power sources and current types.
- Interpret welding blueprints and weld symbols.
- Utilize basic welding metallurgy.
- Utilize oral and written communication skills in the workplace, including terminology in the welding industry.

ESTIMATED RESIDENT PROGRAM COST:

Tuition and Fees	$3025
Application Fee	30
Tools/clothing	varies
Lab Fees	500
Books/Supplies	280
TOTAL	$3835+

MUS Student Health Insurance Premium approx $1600/year if needed

FALL SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
M	111	Technical Mathematics	3†	_____
WLDG	110	Welding Theory I	2†	_____
WLDG	111	Welding Theory I Practical	3†	_____
WLDG	121	Welding Theory II Practical	3†	_____
WLDG	117	Blueprint Reading & Welding Symbols	3†	_____
WLDG	205	Applied Metallurgy	2†	_____
		Subtotal	16	

SPRING SEMESTER

COURSE	NO.	TITLE	CREDITS	GRADE
COMM	120	Interpersonal Skills in the Workplace	1+	_____
WRIT	104	Communication Skills in the Workplace	2+	_____
WLDG	120*	Welding Theory II	1†	_____
WLDG	122*	Welding Theory III Practical	3†	_____
WLDG	145*	Fabrication Basics **OR**		
WLDG	106*	Welding Fabrication Methods	3†	_____
WLDG	130*	Intro to Structural Welding	3†	_____
WLDG	185*	Welding Qualification Prep	2†	_____
		Subtotal	15	

TOTAL PROGRAM CREDITS – 31~

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

THIS PROGRAM OF STUDY IS DESIGNED FOR STUDENTS PLANNING TO APPLY TO THE MSU-BOZEMAN – BSN NURSING PROGRAM

This program of study is designed for students planning to apply to the MSU Bozeman BSN Nursing program. Students must earn a grade of 'C' or better in each of the courses with no more than one repeat per course. Students must apply to Montana State University-Bozeman's College of Nursing and go through the placement process. Beginning in Spring 2011, the placement process will be changing. Please contact Wendy Minster, Program Assistant at 406-771-4451 for more information.

THE INFORMATION ON ALL TRANSFER PROGRAMS IS SUBJECT TO CHANGE. STUDENTS SHOULD CONTACT: MSU-Bozeman College of Nursing, Great Falls Campus at 771-4450 or the main campus at 406-994-3783.

I. MONTANA UNIVERSITY SYSTEM CORE - 32 CREDITS

COMMUNICATION--6 CREDITS
(NEED 3 WRITING & 3 VERBAL CREDITS)

Course	No.	Title	Credits
WRIT	101**	College Writing I	3
		AND 1 of the following	
COMM	130	Public Speaking	3
COMM	135	Interpersonal Communication	3

MATHEMATICS--4 CREDITS

Course	No.	Title	Credits
STAT	216**	Introduction to Statistics	4

HUMANITIES--3 CREDITS

Course	No.	Title	Credits
LIT	110	Intro to Literature	3
LIT	231*	Ancient to Ren World Lit	3
LIT	232*	Modern World Lit	3
ENGL	217	Creative Writing	3
HUM	242	Gender & Equality	3
PHL	101	Introduction to Philosophy	3
PHL	110	Introduction to Ethics	3

FINE ARTS--3 CREDITS

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
DE	161	Introduction to Design	3
MUSI	105	Music Theory I	3
MUSI	101	Enjoyment of Music	3
MUSI	203	American Popular Music	3
MUSI	207	World Music	3

NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	205	Personal Nutrition	3
	AND		
CHMY	121*	Intro to General Chem/Lab	4

SOCIAL SCIENCES/ HISTORY--6 CREDITS

Course	No.	Title	Credits
PSYX	100	Introduction to Psychology	3
PSYX	230	Developmental Psychology	3

DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3
BUS	249	Global Marketing	3
LIT	215N	Lit of the West	3
LIT	289N	Native American Literature	3
HUM	244	American Cultural Values	3
SIGN	101	Intro to American Sign Lang	3
NAS	201N	Montana's American Indians	3
NAS	215N	Native American Religious Trad	3

II. ADDITIONAL REQUIRED COURSES – 19 CREDITS

Course	No.	Title	Credits
BIO	213**	Anatomy & Physiology I/Lab	4
BIO	214*	Anatomy & Physiology II/Lab	4
BIOM	250*	Microbiology for Health Sciences/Lab	4
CHMY	123*	Intro to Organic and Biochem/Lab	4
SOCI	101	Introduction to Sociology	3

♦A student must complete CHMY 121 prior to, or concurrently with, Anatomy & Physiology I.

If you are interested in completing an Associate of Science with MSU-Great Falls College of Technology, please contact your program advisor to determine the additional courses needed.

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

This Program of Study is Designed For Students Planning to Apply to the MSU Bozeman – College of Business

The College of Business of MSU-Bozeman has a basic curriculum required for the freshman and sophomore years in Accounting, Finance, Management, and Marketing. Completion of this track will allow students to be eligible for formal admission to the MSU-Bozeman College of Admissions. Students intending to apply for admission to the MSU-Bozeman of Business must complete all program requirements, have a "C" or better in all Business courses, and have a 2.50 minimum cumulative GPA.

THE INFORMATION ON ALL TRANSFER OPTIONS IS SUBJECT TO CHANGE. STUDENTS SHOULD CONTACT THE MSU-BOZEMAN'S COLLEGE OF BUSINESS. BUSINESS@MONTANA.EDU

I. Montana University System Core - 31 Credits

Communication--6 credits

(Need 3 writing & 3 verbal credits)

Course	No.	Title	Credits
WRIT	101**	College Writing I	3
		AND 1 of the following	
COLS	101	First Year Seminar	3
COMM	130	Public Speaking	3
COMM	135	Interpersonal Communication	3

Mathematics--3 credits

Course	No.	Title	Credits
M	121**	College Algebra	3
M	152**	Precalculus Algebra	4
M	153**	Precalculus Trigonometry	3
M	145**	Math for the Liberal Arts	3
M	116**	Mathematics for Health Careers	3

Humanities/Fine Arts--6 credits

Course	No.	Title	Credits
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
DE	161	Introduction to Design	3
LIT	110	Intro to Literature	3
LIT	231*	Ancient to Ren World Lit	3
LIT	232*	Modern World Lit	3
LIT	291	Special Topics – Literature	3
ENGL	217	Creative Writing	3
HUM	242	Gender & Equality	3
MUSI	105	Music Theory I	3
MUSI	101	Enjoyment of Music	3
MUSI	203	American Popular Music	3
MUSI	207	World Music	3
PHL	101	Introduction to Philosophy	3
PHL	110	Introduction to Ethics	3

Natural Science--7 credits

(Must include 1 lab course)

Course	No.	Title	Credits
BIOB	101	Discover Biology/Lab	4
BIOB	160	Principles of Living Systems/Lab	4
BIOB	170	Principles of Biological Diversity/Lab	4
BIO	107	Fund of Human Biology/Lab	4
BIO	205	Personal Nutrition	3
CHMY	121*	Intro to General Chemistry and Lab	4
CHMY	141*	College Chemistry I/Lab	4
CHMY	143*	College Chemistry/Lab	4
GEO	101	Intro to Physical Geology/Lab	4
PHYS	110	Survey of Natural Sciences	3
PHYS	130	Fund Physical Science Lab	4

Social Sciences/ History --6 credits

Course	No.	Title	Credits
HSTA	101N	American History I	3
HSTA	102N	American History II	3
HSTR	101	Western Civilization I	3
HSTR	102	Western Civilization II	3
HSTA	255N	Montana History	3
PSYX	100	Introduction to Psychology	3
PSYX	230	Developmental Psychology	3
SOCI	101	Introduction to Sociology	3
SOCI	121	Introduction to Criminal Justice	3
PSCI	210	Intro to American Government	3

Diversity--3 credits

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3
BUS	249	Global Marketing	3
LIT	215N	Lit of the West	3
LIT	289N	Intro to Native American Lit	3
HUM	244	American Cultural Values	3
SIGN	101	Intro to American Sign Lang	3
NAS	201N	Montana's American Indians	3
NAS	215N	Native American Religious Trad	3

Cultural Heritage of American Indians--3 credits

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

II. Business Course Requirements – 38 credits

ACTG	101	Accounting Procedures I	3
ACTG	102*	Accounting Procedures II	3
ACTG	201*	Principles of Financial Accounting	3
ACTG	202*	Principles of Managerial Accounting	3
BUS	106	Introduction to Business	3
CAPP	120	Introduction to Computers	3
ECNS	201	Principles of Microeconomics	3
ECNS	202	Principles of Macroeconomics	3
WRIT	122**	Intro to Business Writing	3
M	171**	Calculus I	4
STAT	216**	Introduction to Statistics	4
STAT	217*	Intermediate Statistical Concepts	3

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

Total Program Credits – 69

~Many students need preliminary math and Writing courses before enrolling in the program requirements. Students should review their math and writing placement before planning out their full program schedule.

Course Descriptions

This section includes a brief description of each credit course offered on a regular basis by Montana State University–Great Falls College of Technology.

Each listing includes a course number, course title, number of credits awarded, prerequisites, co-requisites, term(s) offered, and course descriptions. The following letters are used to specify the term each course is offered:

- F - Fall Semester
- S - Spring Semester
- SU - Summer Term

Please Note: Courses scheduled for any term may be cancelled due to low enrollment.

While the terms each course is offered are shown, students should consult the Schedule of Classes published prior to registration each term for the most up-to-date information on course offerings. Courses offered on "Sufficient Demand" are indicated as such in the course descriptions.

Consult the Programs and Transfer sections of this catalog and/or an advisor for specific information about each course and which courses meet program or transfer requirements.

**Please note that most MSU–Great Falls College of Technology courses require you to utilize advanced technology. Examples include online research, library usage, computer communication, electronic submission of assignments, online quizzes, etc.

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Course Descriptions - Accounting (ACTG)

ACTG 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

ACTG 101 ACCOUNTING PROCEDURES I
Credits: 3
Term: (F,S)
Prerequisites: M 065 or qualifying test score

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.

ACTG 102 ACCOUNTING PROCEDURES II
Credits: 3
Term: (F,S)
Prerequisites: ACTG 101
Pre OR Corequisites: M 108

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.

ACTG 180 PAYROLL ACCOUNTING
Credits: 3
Term: (F,S)
Prerequisites: ACTG 101
Pre OR Corequisites: CAPP 120, M 108

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.

ACTG 194 PCE TOPIC

Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

ACTG 201 PRINCIPLES OF FINANCIAL ACCOUNTING
Credits: 3
Term: (F)
Prerequisites: ACTG 102,
Pre OR Corequisites: M 095 or qualifying test score

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.

ACTG 202 PRINCIPLES OF MANAGERIAL ACCOUNTING
Credits: 3
Term: (S)
Prerequisite: ACTG 201

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.

ACTG 205 COMPUTERIZED ACCOUNTING
Credits: 3
Term: (F)
Prerequisites: ACTG 102, ACTG 180
Corequisites: ACTG 201

Students will complete a variety of accounting projects using microcomputer accounting software.

ACTG 211 INCOME TAX FUNDAMENTALS
Credits: 3
Term: (S)
Prerequisites: ACTG 180, ACTG 201

This course introduces students to the basic income taxation principles, concepts, and procedures of individuals, proprietorships, partnerships, and corporations.

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Course Descriptions - Allied Health (AH)

AH 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

AH 103 FUNDAMENTALS OF HEALTH OCCUPATIONS
Credits: 2
Terms: (F, S, SU based on sufficient demand)

Students are introduced to the variety of professions in the healthcare industry and explore basic health care concepts and skills.

AH 104 INTRODUCTION TO DENTISTRY
NOTE: This is a pilot course effective 2009-2010.
Credits: 1 (15 lecture hours)
Terms: (F; S & SU Based on Sufficient Demand)

An introductory course in the history of dentistry along with its many facets including private and public health clinical settings. The various roles that make up the dental team along with their specific functions will be explored. Introduction to the levels of preventive dentistry as well as an introduction to dental terminology will be included.

AH 108 DISEASE CONCEPTS
Credits: 2
Terms: (F, S, SU)
Prerequisites: BIO 107 or BIO 127

This course is designed to provide students in the Health Sciences field with foundational knowledge of the general mechanisms of disease, and the clinical manifestations of disease commonly seen in the health care environment. Disease processes specific to each body system are studied, and treatment interventions and prognosis discussed.

AH 110 EXPLORING COMPLEMENTARY AND ALTERNATIVE MEDICINES
Credits: 2
Terms: (F, S, SU)

This course examines the vast selection of therapeutic interventions known as alternative or complementary medicines being presented to today's consumers.

AH 120 INTRAVENOUS THERAPY
Credits: 1

Terms: (F,S,SU Based on Sufficient Demand)
Prerequisites: Students must be enrolled the last semester of the

Practical Nurse program, or be enrolled in the second year of the Respiratory Care program, or obtain instructor approval.

Intravenous Therapy covers IV therapy principles including anatomy of the arm and hand with particular attention to the veins, IV equipment, IV solution flow rates calculation, infection control,
potential complications and IV documentation. Each student will perform IV starts on a mannequin arm, and when proficient, initiate IVs on people.

AH 125 FUNDAMENTALS OF FORENSIC SCIENCE
Credits: 2
Term: (SU, Based on Sufficient Demand)

In Fundamentals of Forensic Science, students will examine the philosophical, rational and practical framework that supports a case investigation. The unifying principles of forensic science to the pure
sciences will be examined, and students will be introduced to the unique ways in which a forensic scientist must think. Topics will include the experimental method and some of the ways in which a forensic analysis can be confounded. The various forensic science occupations will also be explored.

AH 140 PHARMACOLOGY
Credits: 2
Terms: (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 150 FITNESS FOR LIFE
Credits: 2
Terms: (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 180 BASIC PHARMACEUTICALS
Credits: 1
Terms: (F, S, SU)

This course provides basic knowledge of the most commonly prescribed pharmaceuticals needed to analyze health care information for various health science support functions. Emphasis is on classification, indications, therapeutic effects, side effects, interactions, and contraindications of new, current, and newly introduced applications of existing medications.

AH 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide

students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

AH 219 NUTRITION AND DIET THERAPY FOR NURSES
Credits: 2
Term: (S)
Prerequisites: BIO 213 or CHM 111

An introduction to basic normal and clinical nutrition. The fundamentals of nutrition and the special nutritional needs throughout the various stages of life will be addressed. The appropriate uses of diet therapy in restoring and maintaining health will also be covered. This class is offered for nursing and pre-nursing students only.

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Course Descriptions - Allied Health Medical Assisting (AHMA)

AHMA 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

AHMA 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

AHMA 201 MEDICAL ASSISTING CLINICAL PROCEDURES I
Credits: 4
Term: (F)
Prerequisite/Co-requisite: Instructor approval – BIO 127 and BIO 128 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.

AHMA 202 MEDICAL ASSISTING CLINICAL PROCEDURES I LAB
Credits: 1
Term: (SU)
Corequisite: MO 242

This seminar is designed for students participating in MO 242. It features discussions of clinical topics and situations.

AHMA 203 MEDICAL ASSISTING CLINICAL PROCEDURES II
Credits: 4
Term: (S)
Prerequisite: AHMA 201 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.

AHMA 280 MEDICAL ASSISTING EXAM PREPARATION
Credits: 1
Term: (S)
Prerequisite: Consent of Instructor

This seminar is designed for students completing the Medical Assisting Program. Current topics in Medical Assisting will be discussed and students will work on preparing for the AAMA certification examination.

AHMA 298 MEDICAL ASSISTING EXTERNSHIP
Credits: 4
Term: (SU)
Prerequisite: Instructor approval and AHMA 201 and AHMA 203 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.

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Course Descriptions - Allied Health Medical Support (AHMS)

AHMS 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

AHMS 105 HEALTHCARE DELIVERY
Credits: 2
Term: (F)

This introductory course acquaints students with an overall view of the healthcare system. Topics include organization, financing, and delivery of healthcare through various types of facilities, agencies, health organizations, and hospitals. Medical ethics, professional behavior, and patient rights are also covered.

AHMS 108 HEALTH DATA CONTENT AND STRUCTURE
Credits: 3
Terms: (F, S)
Prerequisites or Co-requisites: AHMS 144

This course provides orientation to the health information department and its organization interrelationships in healthcare facilities. This course also covers the content and format of the health record (both conventional and alternative formats), quantitative and qualitative analysis of the record according to regulatory and accreditation standards, numbering, filing, retention, storage, and destruction of records. Application will be provided using extensive discussion and assignments designed to approximate real life situations.

AHMS 118 HEALTH CARE PERSONNEL AND SUPERVISION
Credits: 2
Term: (S)

Legal requirements, theories, and techniques for supervision at the first- and mid-management level are the topics of this course. Supervision processes, including communicating, organizing, directing, motivating, controlling, and evaluating are assessed for application in healthcare organizations through the use of case studies.

AHMS 142 INTRODUCTION TO MEDICAL TERMINOLOGY
Credits: 1
Terms: (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.

AHMS 144 BASIC MEDICAL TERMINOLOGY
Credits: 3
Terms: (F, S, SU)

The goals of this course are to promote knowledge of the elements of medical terminology for professional and personal development, the ability to spell and pronounce medical terms, an understanding of medical abbreviations, and an appreciation of the logical method found in medical terminology. This includes word analysis and word building. Knowledge of terms relating to body structures, positions, directions, divisions and planes will be required. An awareness of current health events is encouraged, as is knowledge of basic scientific and specialty areas in healthcare practice.

AHMS 156 MEDICAL BILLING FUNDAMENTALS
Credits: 4
Terms: (F, SU)
Prerequisites or Corequisites: AHMS 144

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.

AHMS 158 LEGAL AND REGULATORY ASPECTS OF HEALTHCARE
Credits: 3
Term: (S, others based on sufficient demand)
Prerequisites: WRIT 095 or higher

This course covers basic knowledge of the legal, regulatory, and ethical aspects of healthcare including: doctrines, principles, and processes of civil law; state licensure and national accreditation standards; and professional requirements for personal liability, confidentiality, and documentation of the health record. Application will be provided using extensive discussion and assignments designed to approximate real life situations.

AHMS 160 BEGINNING PROCEDURAL CODING
Credits: 3
Term: (F, S)
Prerequisites: BIO 127
Co-requisites: AHMS 201

This course covers basic and intermediate levels of theory and application of CPT principles to code procedures documented in healthcare records. Students perform basic and intermediate coding using real health records, case studies, and scenarios. HCPCS coding is also covered. Application will also include book and an introduction to encoder software. This coding class requires hands-on coding skills, and knowledge of basic use of applicable coding books.

AHMS 162 BEGINNING DIAGNOSIS CODING
Credits: 3
Term: (F,S)
Prerequisites: BIO 127
Co-requisites: AHMS 201

This course covers basic and intermediate levels of theory and application of ICD-CM principles and guidelines for coding and sequencing diagnoses and procedures. Students perform basic and intermediate coding using real health records, case studies, and

scenarios. Application will focus on book coding with a brief overview of encoder software. This coding class requires hands-on coding skills, knowledge of basic use of applicable coding books.

AHMS 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

AHMS 201 MEDICAL SCIENCE
Credits: 3
Terms: (F, S)
Prerequisites: AHMS 144, BIO 127 or BIO 213

This course provides basic knowledge of the most common diseases, anomalies, treatments, and procedures needed to analyze healthcare documentation for various health science support functions including abstracting, coding, transcription, auditing, and reimbursement. Drug classification, diagnostic tests, pathology, laboratory, radiology, nuclear medicine, and ultrasound procedures are also included.

AHMS 208 HEALTHCARE STATISTICS
Credits: 2
Term: (F, others based on sufficient demand)
Prerequisites or Co-requisites: M 090 or M 108, CAPP 120

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.

AHMS 212 PROCEDURAL CODING
Credits: 3
Term: (F,S)
Prerequisite: AHMS 160

Basic understanding of the CPT, ICD-CM, coding principles should already be established. This advanced course will cover medical necessity, coding issues for specific body systems, and for general conditions. Intensive coding application will be achieved through the use of real health records, case studies, and scenarios. Application will include the use of encoder software. DRGs, APCs, RUGs, RBRVs, and the Correct Coding Initiative (CCI) will also be covered in this class. This coding class requires hands-on coding skills, and knowledge of basic use of applicable coding books.

AHMS 214 DIAGNOSIS CODING
Credits: 3
Terms: (F,S)
Prerequisite: AHMS 162

Basic understanding of diagnostic and procedural coding principles should already be established. The course requires interpreting ICD-9-CM coding and reporting guidelines to sequence and assign appropriate diagnostic codes for both inpatient and various outpatient settings. Compliance issues associated with various IPPS reimbursement systems such as MS-DRGs, as well as APCs are covered. Encoder software will complement the ICD-9-CM manual in the application of coding processes. Clinical information will be interpreted from brief case studies and progress to the use of a patient's complete health record.

AHMS 220 MEDICAL OFFICE PROCEDURES
Credits: 3
Term: (S)
Prerequisite: CAPP 120 and AHMS 144

Students will utilize medical office software to perform basic administrative procedures in the medical office. These include: scheduling, managing patient accounts, and office documentation. An emphasis will be placed on professionalism, legal and ethical issues, and HIPAA standards.

AHMS 227 HEALTH INFORMATION MANAGEMENT
Credits: 3
Term: (F, others based on sufficient demand)
Prerequisite or Co-requisite: AHMS 108

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.

AHMS 240 CLINICAL QUALITY ASSESSMENT
Credits: 3
Term: (S, others based on sufficient demand)
Prerequisites: CAPP 120 AND M 090 or M 108

The principles and procedures of quality, utilization, risk, and compliance processes used to improve the quality of patient health care are taught in this course. Quality assessment and improvement standards and requirements of licensing, accrediting, fiscal and other regulatory agencies are presented. Methods for identifying variations and deficiencies for follow-up action will be achieved using extensive discussion and assignments designed to approximate real life situation.

AHMS 245 SIMULATED LAB: MEDICAL SUPPORT
Credits: 2
Terms: (S, others based on sufficient demand)
Prerequisite: AHMS 108; AHMS 162; AHMS 160
Corequisite: AHMS 214

Lab based course in which students utilize the AHIMA virtual Lab. The Virtual Lab exposes students to software utilized in health information management and healthcare reimbursement. Professionalism in the workplace will also be covered. This course is a mastery-level course, where students utilize skills acquired in previous programmatic courses. Coding of authentic records will be included.

AHMS 252 COMPUTERIZED MEDICAL BILLING
Credits: 3
Term: (S)
Prerequisites: AHMS 156

This course will build on topics covered in AHMS 156. Students will study characteristics and requirements of each type of insurance including: indemnity plans, HMOs, PPOs, Worker's Compensation (state by state variances). Students will also discuss the adjudication process, resolve reimbursement problems and respond to claims reviews and appeals. Students will use medical office software package to complete assignments.

AHMS 255 MEDICAL TRANSCRIPTION I
Credits: 3
Terms: (S, SU)

Prerequisite: AHMS 144, CAPP 120, 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.

AHMS 256 MEDICAL TRANSCRIPTION II
Credits: 3
Term: (F)
Prerequisites: AHMS 255 with "C-" or better

This course is designed to increase speed and accuracy in transcribing medical data with exposure to advanced technical language in a variety of specialties. Special attention is on speed, accuracy, production, style, and formats. The AHDI Book of Style will be utilized throughout the course.

AHMS 257 MEDICAL TRANSCRIPTION III
Credits: 3
Terms: (S, SU)
Prerequisites: AHMS 256 with "C-" or better

This is a capstone class in medical transcription. Students will transcribe a variety of provider-generated medical reports in all specialty areas, demonstrating progressively demanding accuracy and productivity standards. Emphasis will be placed on proofreading and correcting transcribed documents, noting and correcting inconsistencies and inaccuracies, and utilizing the AHDI Book of Style and other references appropriately. Professionalism and job seeking techniques will also be discussed.

AHMS 258 PRACTICUM IN MEDICAL TRANSCRIPTION
Credits: 3
Term: (SU only)
Prerequisites: Successful completion of AHMS 257

During the medical transcription practicum, students will transcribe a minimum of 10 dictated hours of actual healthcare provider-generated dictation. This may occur in an externship setting or in a simulated professional practice setting. The focus will be on building speed and accuracy, applying the guidelines of the Book of Style, and using productivity tools appropriately.

AHMS 280 OVERVIEW OF HEALTH INFORMATICS SYSTEMS
Credits: 4
Term: (F, others based on sufficient demand)
Prerequisites: AHMS 144, CAPP 120

This course will cover the principles of analysis, design, evaluation, selection, acquisition, and utilization of information systems in healthcare. Also included in this course are the technical specifications of computer hardware, software, networks, and telecommunications. Furthermore, this course will provide an understanding of technology's role in healthcare. The course will emphasize the intellectual use of information strategic planning, decision support, program management, high quality patient care, and continuous quality improvement. Application will be provided using extensive discussion and assignments designed to approximate real life situations.

AHMS 288 HIT EXAM PREPARATION
Credits: 3
Term: (S)
Prerequisite or Co-requisites: AHMS 298

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.

AHMS 298 HIT - PROFESSIONAL PRACTICE EXPERIENCE
Credits: 1-3
Term: (S)
Prerequisite: Approval of the Program Director

Students in this course will gain professional practice experience in their program of study. Students create written records of their experiences and will complete assigned projects as indicated.

AHMS 298A HICS/CODING - PROFESSIONAL PRACTICE EXPERIENCE
Credits: 2
Term: (S)
Prerequisite: AHMS 108, 156, 160, 162,
Corequisite: AHMS 212, 214

Lab based course in which students utilize the AHIMA virtual Lab. The Virtual Lab exposes students to software utilized in health information management and healthcare reimbursement. Professionalism in the workplace will also be covered. This course is a mastery-level course, where students utilize skills acquired in previous programmatic courses. Coding of authentic records will be included. This course serves as a virtual practical experience.

AHMS 298B Medical Billing/Coding Professional Practice Experience
Credits: 1-3
TERM: (S, SU)
Prerequisites: Approval of the Program Director

Students in this course will gain professional practice experience in their program of study. Students create written records of their experience and will complete assigned projects as indicated in their Professional Practice Experience Manual. This course is scheduled for 80 hours off campus. Each student will be responsible for their own transportation to and from the health care facility and any necessary living expenses.

Course Descriptions - Anthropology (ANT)

ANT 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

ANT 101 INTRODUCTION TO ANTHROPOLOGY
Credits: 3
Terms: (F, S, SU based on sufficient demand)

This course provides an introductory survey of the basic theory and practice of the four classic fields of anthropology: physical anthropology, archaeology, linguistics, and cultural anthropology. The focus of the course is on the evolution of the human species, theories of early culture, reconstruction of the past through archaeological analysis, and structure and usage of language and its relationship to culture. The student will become familiar with the basic concepts of anthropology, its sub-disciplines, methods used to study and understand other cultures, and the general theories of cultures.

ANT 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Art (Art)

ART 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

ART 101 INTRODUCTION TO VISUAL ARTS
Credits: 3
Terms: (F, S, SU)

This slide lecture course will introduce the students to forms of creative expression within visual arts, encouraging the students to more actively explore art verbally and in written form. The course material will focus on various issues of aesthetic expression rather than the historical development of the arts.

ART 114 ART FUNDAMENTALS
Credits: 3
Terms: (F, S)

This course is an exploration of visual concepts through studio projects supplemented by lecture, discussion, and writing assignments. Art fundamentals will be investigated through drawing, color theory, and 3-dimensional processes.

ART 140 DRAWING I
Credits: 3
Terms: (F, S, SU)

This course introduces the fundamentals of drawing with consideration for line, form, space and perspective in rendering from three-dimensional shapes, still life, landscape or the human
form utilizing a variety of drawing materials. Emphasis will be placed on learning to see and render basic shapes, line quality, value, light and shadow, texture, mass, perspective and composition. Students will be encouraged to apply these skills to develop a personal style of drawing.

ART 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

Course Descriptions - Aviation Science Technology (AST)

AST 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

AST 141 AVIATION FUNDAMENTALS ~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (F)

Students must be co-enrolled in both AST-141 and AST-143 Introduction to basic flight principles. Course includes the principles of flight (basic aerodynamics), aircraft systems, performance, weight
and balance, aviation physiology, federal air regulations, and flight publications.

AST 142 PRIVATE PILOT FLIGHT ~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 2
Term: (F)

Students must enroll in this course while pursuing a private pilot's certificate from an approved flight school. Course credits will be awarded upon receipt of a copy of the student's private pilot certificate.

AST 143 BASIC AIR NAVIGATION ~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (F)

Students must be co-enrolled in both AST-141 and AST-143 An introduction to air navigation procedures. Course includes basic meteorology, interpreting weather data pilotage and dead reckoning navigation, radio navigation, and cross country flight planning.

AST 171 AIRCRAFT SYSTEMS FOR PILOTS~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (S)

Introduction to basic aircraft systems found on modern single and multi-engine reciprocating aircraft. Topics will include piston engines, electrical systems, hydraulic and pneumatic systems, radios and
instruments, propellers, pressurization, maintenance requirements and documentation, and trouble shooting from the cockpit. In this course you will be introduced to the systems

commonly found in the training aircraft you are now flying.

AST 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

AST 241 ADVANCED NAVIGATION SYSTEMS~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (S)
Prerequisites: AST 143, or consent of instructor

Advanced navigation systems includes HSI, RMI, Loran, Doppler, VOR, NDB and GPS. Will include navigation theory, in-flight emergencies, electronic instrumentation, and advanced flight computing problems. Extensive use of in-class computer flight simulation will be exercised. Provides the radio navigation skills necessary for the instrument pilot.

AST 242 INSTRUMENT FLIGHT ~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 2
Term: (S)
Prerequisites: Private pilot's certificate

Students must enroll in this course while pursuing the Instrument certificate at an approved flight school. Credits will be awarded upon receipt of a copy of the student's instrument rating.

AST 243 INSTRUMENT/COMMERCIAL THEORY I~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (S)
Prerequisites: AST 142

An introduction to flight under IFR conditions. Course includes basic instrument flying, flight instruments, IFR charts and approach plate, IFR regulations and procedures, ATC clearances and IFR flight planning. Completion of the course will prepare the student for the Instrument Knowledge Exam.

AST 245 INSTRUMENT/COMMERCIAL THEORY II~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (F)
Prerequisites: AST 243

Commercial Flight Maneuvers, Airplane Aerodynamics, Advanced Performance, Power plants (including fuel injection and turbo-charging), Environmental Control Systems and Retractable Landing Gear Systems will be taught. Also, airports (marking and lighting) will be reviewed. Advanced Weight and Balance, and Part 61, 91, 125, and 135 and NTSB 830 Commercial Pilot Regulations will build on the private pilot regulations learned earlier. High Altitude Physiology, and High Performance and Turbine-Aircraft Flight Operations will be emphasized.

AST 250 AVIATION OPERATIONS~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (S)

An overview of general aviation operations, specifically the operation and management of the Fixed Base Operation (FBO). This course also covers current events and trends affecting the general aviation industry as a whole.

AST 252 COMMERCIAL FLIGHT ~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 4
Term: (F,S)

Students must enroll in this course while pursuing their Commercial certificate at an approved flight school. Credits will be awarded upon receipt of a copy of the student's commercial certificate.

AST 260 FLIGHT INSTRUCTOR THEORY~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (S)
Prerequisites: Commercial Pilot Certificate with an Instrument rating or consent of instructor.

Theory of flight and ground instruction, aircraft performance, analysis of flight maneuvers, and other basic theory as needed by the airplane flight instructor. Prepares the student for the FAA Flight Instructor oral practical test and FAA written test. In-class discussion and presentations will be the main core of the course.

AST 261 AVIATION SAFETY~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (F)

This course will concentrate primarily on the organizations and processes that govern commercial and general aviation safety in the United States. This course will also provide an overview of modern techniques used in accident investigation. Also covered are descriptions of major factors and the causation of aviation accidents.

AST 262 ADVANCED AIRCRAFT THEORY~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (S)
Prerequisites: Private Pilot Certificate and Instrument Rating, or consent of the instructor.

Introduction to high performance, multi engine, aerobatic, and tailwheel aircraft; their systems, performance, weight and balance computations, flight procedures, characteristics, and emergencies. Unusual attitude recoveries, IFR and VFR.

AST 263 AVIATION REGULATIONS AND PROFESSIONAL CONDUCT~
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 3
Term: (S)

Provides a detailed study of the regulations and procedures common to the aviation industry as well as a survey of the legal environment and the standards of conduct required of professional pilots.

AST 281 CERTIFIED FLIGHT INSTRUCTON~
OPTIONAL COURSE IN AVIATION PROGRAM
THIS CLASS OFFERED AT THE COT IN BOZEMAN
Credits: 1
Term: (S)

Prerequisites: Commercial Pilot Cert. and concurrent enrollment in AST 260

Students must be enrolled in this course while pursuing their Certified Flight Instructor certificate. Credit for the course will be awarded upon completion of the FAA Certified Flight Instructor Practical Test.

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Course Descriptions - Biology (BIO)

BIO 080 BASIC SCIENTIFIC CONCEPTS & SKILLS
Credits: 3 (3 lecture)
Terms: (F, S based on sufficient demand)

This course is intended for students with limited exposure to biology, chemistry, and/or physical sciences. This course introduces students to basic scientific principles and processes in preparation for further study in the sciences.

BIO 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

BIO 107 FUNDAMENTALS OF HUMAN BIOLOGY/LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (F,S,SU)
Placement required: Students must place into M 090 or higher AND place into WRIT 101 or higher.

This course introduces students to the structure and function of the human body. Topics such as the fundamental principles in organic and inorganic chemistry, cellular metabolism, cellular anatomy, cellular biology and histology will be covered and subsequently applied to the physiology of the body as whole. Organ systems to be covered in this course include cardiovascular, lymphatic, respiratory, nervous, musculoskeletal, and endocrine.

Completion of this course and/or Chem 121 with a C or better is ***strongly recommended*** before enrolling in BIO 213 Anatomy & Physiology I.

BIO 127 ANATOMY AND PHYSIOLOGY I FOR NON-CLINICAL MAJORS
Credits: 4 (Lecture only, no lab)
Terms: (F,S)

This course is the first in an online, two-course sequence for non-clinical health majors which provides a comprehensive study of the anatomy and physiology of the human body. The course will take a systemic approach covering all body systems. Topics will include structure, function and interrelationships of organ systems. The course will provide a foundation for students entering non-clinical health careers.

BIO 128 ANATOMY AND PHYSIOLOGY II FOR NON-CLINICAL MAJORS
Credits: 3 (Lecture only, no lab)
Terms: (F,S)
Prerequisites: BIO 107 or BIO 127

Course Descriptions - General Biology (BIOB)

BIOB 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

BIOB 101 DISCOVER BIOLOGY/LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (F,S,SU)
Placement required: Students must place into M 090 or higher AND place into WRIT 101 or higher.

This course introduces basic biological principles including the cell, the interrelationship of structure and function, and the characteristics and classification of living things. Students will examine the five kingdoms of organisms (monera, protista, fungi, plants, animals), concentrating on vascular plants and vertebrate animals, as well as reproduction and basic ecological concepts. This general education course is designed for non-science majors. Laboratory experience will include experimentation, microscope work, observation, and dissection.

BIOB 160 PRINCIPLES OF LIVING SYSTEMS/LAB
Credits: 4 (3 lecture, 1 lab)
Term: (S 2011 based on Sufficient Demand)
Prerequisites: CHMY 121 or CHMY 141
Placement required: Students must place into M 090 or higher AND place into WRIT 101 or higher.

This course is designed to help students understand and apply major concepts in molecular and cellular biology including: biological macromolecules, cell structure and function, major biochemical
pathways (cellular respiration and photosynthesis), cell division, Mendelian genetics, modern biotechnology, early development, and major control mechanisms within the body. Students will also examine the scientific method.

BIOB 170 PRINCIPLES OF BIOLOGICAL DIVERSITY/LAB
Credits: 4 (3 lecture, 1 lab)
Term: (F 2010 based on Sufficient Demand)
Placement required: Students must place into M 090 or higher AND place into WRIT 101 or higher.

This course is designed to help students understand and apply major
concepts in organismal biology including the diversity, evolution, and ecology of organisms. The origin of life and the evolution of cells, classification and evolution of organisms, major domains and kingdoms of life, natural selection and evolution, species diversity, ecosystems organization and energy flow, community interactions, population ecology and behavioral

ecology will be discussed. CHMY 121 or higher is highly recommended.

BIOB 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

BIOB 275 GENERAL GENETICS
Credits: 3
Term: (S based on Sufficient Demand)

Introduction to classical and molecular genetics of eukaryotes, with emphasis on transmission genetics, the structure and regulation of genes, and mechanisms of genetic change.

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This course is the second in a two-course sequence for non-clinical health majors. The course will build on the topics explored in the first semester. Body systems will be covered in greater depth, and the focus will be on the interrelationships between systems. In addition to structure and function, an emphasis will be placed on the body processes which maintain homeostasis. The course will take a problem based approach allowing students to use critical thinking skills and apply knowledge from both semesters.

BIO 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

BIO 202 HUMAN ANATOMY FOR RAD TECHS
Credits: 3 (3 lecture)
Terms: (S)
Placement required: Students must place into M 095 or higher AND place into WRIT 101 or higher.

This course is an integrated study of the human body in which the detailed anatomy of the skeletal, respiratory, circulatory, digestive, nervous, urinary, and reproductive systems is covered. This course is designed to provide students with the fundamentals of human anatomy necessary for successful completion of the Radiologic Technology program at MSU–COT by providing an interactive, hands-on learning environment. BIO 107 - Fundamentals of Human Biology/Lab is highly recommended before enrolling in this course.

BIO 205 PERSONAL NUTRITION
Credits: 3
Terms: (F,S)

To understand the science of human nutrition and apply nutrition and food concepts to the individual during critical stages of the life cycle. To demonstrate the consumer skills needed to achieve optimal nutritional status.

BIO 213 ANATOMY AND PHYSIOLOGY I LECTURE/LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (F,S)
Placement required: Students must place into M 095 or higher AND place into WRIT 101 or higher.

This course is an integrated study of the human body in which histology, anatomy and physiology of each system is covered. The first semester (part I) of this sequence incorporates molecular, cellular and tissue levels of organization for the integumentary, skeletal with articulations, muscular, and nervous systems. Laboratory experience will include experimentation, microscope work, observations, and dissection. BIO 107 and CHMY 121 strongly recommended.

BIO 214 ANATOMY AND PHYSIOLOGY II LECTURE/LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (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 CHMY 121, Anatomy & Physiology I and II, with labs, will transfer to

Course Descriptions - General Biology (BIOB)

BIOB 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

BIOB 101 DISCOVER BIOLOGY/LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (F,S,SU)
Placement required: Students must place into M 090 or higher AND place into WRIT 101 or higher.

This course introduces basic biological principles including the cell, the interrelationship of structure and function, and the characteristics and classification of living things. Students will examine the five kingdoms of organisms (monera, protista, fungi, plants, animals), concentrating on vascular plants and vertebrate animals, as well as reproduction and basic ecological concepts. This general education course is designed for non-science majors. Laboratory experience will include experimentation, microscope work, observation, and dissection.

BIOB 160 PRINCIPLES OF LIVING SYSTEMS/LAB
Credits: 4 (3 lecture, 1 lab)
Term: (S 2011 based on Sufficient Demand)
Prerequisites: CHMY 121 or CHMY 141
Placement required: Students must place into M 090 or higher AND place into WRIT 101 or higher.

This course is designed to help students understand and apply major concepts in molecular and cellular biology including: biological macromolecules, cell structure and function, major biochemical
pathways (cellular respiration and photosynthesis), cell division, Mendelian genetics, modern biotechnology, early development, and major control mechanisms within the body. Students will also examine the scientific method.

BIOB 170 PRINCIPLES OF BIOLOGICAL DIVERSITY/LAB
Credits: 4 (3 lecture, 1 lab)
Term: (F 2010 based on Sufficient Demand)
Placement required: Students must place into M 090 or higher AND place into WRIT 101 or higher.

This course is designed to help students understand and apply major
concepts in organismal biology including the diversity, evolution, and ecology of organisms. The origin of life and the evolution of cells, classification and evolution of organisms, major domains and kingdoms of life, natural selection and evolution, species diversity, ecosystems organization and energy flow, community interactions, population ecology and behavioral

ecology will be discussed. CHMY 121 or higher is highly recommended.

BIOB 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

BIOB 275 GENERAL GENETICS
Credits: 3
Term: (S based on Sufficient Demand)

Introduction to classical and molecular genetics of eukaryotes, with emphasis on transmission genetics, the structure and regulation of genes, and mechanisms of genetic change.

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Course Descriptions - Business (BUS)

BUS 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

BUS 106 INTRODUCTION TO BUSINESS
Credits: 3
Terms: (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 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

BUS 230 MANAGEMENT
Credits: 3
Terms: (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
Terms: (F, 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 238 HUMAN RESOURCE MANAGEMENT
Credits: 3
Term: (F)
Prerequisite: BUS 230

This course explores the human resource management function in a corporate setting and focuses on the development of knowledge and skills that human resource managers employ. Emphasis will be placed on such subjects as the selection process, employment law, labor relations, compensation, performance development, corporate training and maintaining effective environments. The classes are designed to familiarize participants with current human resource practices and laws that apply to human resource careers regardless of their field.

BUS 240 ADVERTISING
Credits: 3
Term: (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
Term: (F)

This course will explore the historical and current perspective of international trade focusing on structures, strengths and weaknesses, marketing environment and regulation, currency issues, and factors affecting success and failure in international marketing.

BUS 255 LEGAL ENVIRONMENT
Credits: 3
Term: (F)
Prerequisite: BUS 106

This course is designed to increase students' level of awareness of law in the business environment. Topics covered include contract law, sales contracts, agency and employer/employee relationships, torts, securities regulations, antitrust law, and product liability.

BUS 260 ENTREPRENEURSHIP
Credits: 3
Term: (S)
Prerequisite: BUS 230, BUS 235, ACTG 201 or Instructor consent.
Co requisite: WRIT 220

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 WRIT 220 and BUS 260 in their final semester. On-campus offering of WRIT 220 is recommended for Entrepreneurship students.

BUS 275 STRATEGIC MANAGEMENT
Credits: 3
Term: (S)
Prerequisite: BUS 230

This course explores the issues of defining corportate-level mission, objectives, and goals,

and is intended to provide students with a pragmatic approach that will guide the formulation and implementation of corporate, business, and functional strategies. It includes a focus on the analysis of the firm's external and internal environment to identify and create competitive advantage in a changing business climate.

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Course Descriptions - Computer Applications (CAPP)

CAPP 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

CAPP 101 SHORT COURSES: THE INTERNET
Credits: 2
Terms: (F,S,SU)

This course will teach skills in using the Internet as an information and educational resource as well as its impact on global society. Internet components explored will include the World Wide Web, FTP, Email, and basics of creating a web page. Social implications of the Internet and its impact on issues such as copyright and fair use will be explored. Thoughtful examination and research on the future of the Internet will conclude the class.

CAPP 105 Short courses: COMPUTER CALCULATORS
Credits: 1 (l/2 semester)
Term: (S)
Prerequisite: M 108

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.

CAPP 112 SHORT COURSES: MS POWERPOINT
Credits: 1
Term: (Based on sufficient demand)
Prerequisite: CAPP 120

This course is an introduction to the use of presentation software to create and design group presentations and slide shows. Students will be required to create group presentations to be delivered to an audience.

CAPP 120 INTRODUCTION TO COMPUTERS
Credits: 3
Terms: (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.

CAPP 152 WORDPERFECT
Credits: 3
Term: (S)
Prerequisite: CAPP 120, OO 107, or consent of faculty

Corel WordPerfect software is used to create documents used in academic, professional, and business environments. These functions include formatting and editing documents, revising documents, managing documents, printing documents, using projects, creating headers and footers, inserting footnotes, creating columns, formatting tables and inserting formulas, using styles, changing fonts, sorting and extracting text, merging documents, formatting macros, creating graphics, and creating charts.

CAPP 154 MS WORD
Credits: 3
Terms: (F,S)
Prerequisite: CAPP 120, 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.

CAPP 156 MS EXCEL
Credits: 3
Terms; (F,S SU)
Prerequisite: CAPP 120

This course introduces students to business applications using spreadsheets. Emphasis will be placed on the essential functions of spreadsheet operation, as well as an introduction to some advanced spreadsheet features such as lookup functions and list management. This course covers expert level skills for the Microsoft Certified Application Specialist (MCAS) certification in Microsoft Excel.

CAPP 158 MS ACCESS
Credits: 3
Terms: (F,S,SU)
Prerequisite: CAPP 120

This course covers expert level skills for the Microsoft Certified Application Specialist (MCAS) certification in Microsoft Access. Use of application software focuses on data queries (both Query-By-Example and Structured Query Language), report and form generation, multiple table relationships, and interface techniques. Database administration and customization techniques will also be covered.

CAPP 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

Course Descriptions - Civil Engineering Technology (CET)

CET 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

CET 173 ARCHITECTURAL CONSTRUCTION AND MATERIALS
Credits: 3
Term: (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

CET 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Chemistry (CHMY)

CHMY 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

CHMY 101 CHEMISTRY FOR THE CONSUMER
Credits: 3
Terms: (F)
Prerequisite: M 090 or qualifying math placement assessment score

This course is an introduction to chemistry that emphasizes the influence of chemistry on one's everyday life. Topics may include food chemistry, dyes and fibers, home products, acid rain, air pollution, medicines, and beauty aids. Common household products, such as soap, aspirin, toothpaste, face cream, and fertilizers are prepared in the lab.

CHMY 121 INTRO TO GENERAL CHEMISTRY/LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (F, S, SU)
Prerequisite: M 090 or qualifying math placement assessment score

This course is a survey of the principles of inorganic chemistry with emphasis on scientific measurement; atomic structure; chemical periodicity; chemical bonding and nomenclature; chemical reactions and stoichiometry; gas laws; properties of liquids, solids, and solutions; acid-base chemistry; and some electrochemistry and nuclear chemistry. This course is designed for students entering health science or nursing programs. The laboratory portion of the course provides hands-on experience dealing with the topics covered in the lecture portion. In order to have the greatest success in this course, it is highly recommended that students possess strong algebra skills.

CHMY 123 INTRO TO ORGANIC & BIOCHEMISTRY/LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (S)
Prerequisite: CHMY 121 with a grade of "C-" or higher

This course is a survey of the principles of organic chemistry and biochemistry with emphasis on nomenclature; structure and classification; properties; and applications of organic and biological compounds. Some discussions of metabolism and cellular processes are also included. This course is designed for students entering health science or nursing programs. The laboratory portion of the course provides hands-on experience dealing with the topics covered in the lecture portion.

CHMY 141 COLLEGE CHEMISTRY I/LAB

Credits: 4 (3 lecture, 1 lab)
Terms: (F: Offered in the Fall on even-numbered years)
Prerequisites: M 095 or qualifying math placement assessment score

The first course in the two-semester general chemistry sequence covering the general principles of modern chemistry. Topics covered include: atomic structure, stoichiometry, chemical reactions,chemical bonding, the periodic table, and the states of matter. The laboratory portion of the course provides hands-on experience dealing with the topics covered in the lecture portion. The experimental nature of the science of chemistry and the mathematical treatment of data are emphasized.

CHMY 143 COLLEGE CHEMISTRY II/LAB
Credits: 4 (3 lecture, 1 lab)
Term: (Based on Sufficient Demand)
Prerequisite: CHMY 141 with a grade of "C-" or higher

The second course in the two-semester general chemistry sequence. Topics covered include: solutions, chemical equilibrium, acids and bases, thermodynamics, and kinetics. The laboratory portion of the course provides hands-on experience dealing with the topics covered in the lecture portion.

CHMY 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Collision Repair (TB)

TB 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

TB 112 AUTO AND PAINT SHOP SAFETY
Credits: 1
Term; (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 121 INTRO TO COLLISION REPAIR
Credits: 4
Term: (F)
Corequisites: TB 122, TB 123, & WELD 152

Covers shop safety, the handling of hazardous materials and toxic waste, basic methods and tools used in the repair of automotive sheet metal, proper methods of metal identification and automobile construction. Students are also introduced to estimating, damage analysis, the proper use and care of tools, measuring devices, fasteners and shop manuals.

TB 122 NON-STRUCTURAL COLLISION REPAIR
Credits: 4
Term: (F)
Corequisites: TB 121, TB 123, & WELD 152

Covers proper assessment, removal, replacement and alignment methods used on today's vehicles. Students are also trained in the proper set up and use of Metal Inert Gas (MIG) welding equipment.

TB 123 INTRO TO REFINISHING
Credits: 4
Term: (F)
Corequisites: TB 121, TB 122, & WELD 152

Introduces students to proper preparation and application techniques, including blending of color coats, used when applying modern undercoats and refinish topcoats, with a strong emphasis on personal safety. Students also learn the causes, prevention and repair

methods associated with various paint defects.

TB 130 BASIC AUTO CONSTRUCTION
Credits: 2
Term: (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.

TB 134 CORRECTING SHEET METAL
Credits: 3
Term: (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. The theory and practice of welding thin gauge mild steel with a wire feed MIG welder will be taught.

TB 136 CORRECTING COLLISION DAMAGE
Credits: 5
Term: (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
Term: (F)

This course introduces students to the processes involved in preparing metal surfaces for different types of undercoats. The importance of corrosion protection is also covered in this course.

TB 142 TOP COAT APPLICATION
Credits: 3
Term: (F)

Students in this course will learn the basic theory of top coat application and the tools and equipment used in the process. These procedures will then be put to use in the shop on practice panels.

TB 150 PAINT REMOVAL
Credits: 3
Term: (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
Term: (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 urethane basecoat-clearcoat.

TB 154 PAINT PROBLEMS
Credits: 1
Term: (S)
Co requisite: TB 153

Students will participate in laboratory practice and preparation to determine the causes of various paint failure due to break down, improper preparation, incompatible materials, wrong use of materials, or poor spray techniques.

TB 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

TB 220 FIBERGLASS AND PLASTIC REPAIR
Credits: 3
Term: (F)
Prerequisite: TB 136

This course covers the different repair procedures and materials for repairing the plastics and composites found in modern automobiles. Refinishing procedures for these materials are also covered in this course.

TB 221 STRUCTURAL COLLISION REPAIR
Credits: 6
Term: (S)
Prerequisites: TB 122, TB 123, & WELD 152
Corequisites: TB 222 & TB 223

Covers methods used in the inspection, measurement, and repair of structural body damage. This class adheres to guidelines as prescribed by vehicle manufacturers, I-CAR and ASE.

TB 222 PLASTIC AND COMPOSITE REPAIR
Credits: 3
Term: (S)
Prerequisites: TB 122, TB 123, & WELD 152
Corequisites: TB 221 & TB 223

Covers identification, pretreatment, and the repair of plastics and composites that are used in the manufacture of modern automobiles. Students are also trained in the proper refinishing methods required for these materials.

TB 223 ADVANCED REFINISHING
Credits: 4
Term: (S)
Prerequisites: TB 122, TB 123, & WELD 152
Corequisites: TB 221 & TB 222

Covers more advanced refinishing topics including the basics of color theory, tinting, and

multistage finishes.

TB 243 PANEL REPLACEMENT
Credits: 3
Term: (F)
Prerequisite: TB 136

This course will give students practical experience in removal and replacement of weld-on and adhesive bonded panels, door skins, and rocker, quarter and top panels.

TB 245 PRODUCTION BODY REPAIR
Credits: 3
Term: (S)
Prerequisite: TB 243

In this course, students' work will be compared to industry flat rate charges used when repairing damage. The learning experiences are simulated to on-the-job work conditions stressing quality and shop flat-rate time. Students will be expected to function as an employer would expect in areas such as dependability, working independently, and customer relations.

TB 246 TOTAL BODY REBUILDING AND SECTIONING
Credits: 3
Term: (S)

This course covers the theory and practice in the use of body measuring equipment including tram gauges and centering gauges. Students will use frame and body pull systems to return a lab vehicle to its proper dimensions and will study the theory of full-body sectioning and proper use of recycled parts.

TB 248 SPOT REPAIR AND BLENDING
Credits: 3
Term: (F)
Co requisite: TB 153

This course provides an overview of the procedures used when performing spot repairs on modern vehicles.

TB 249 PAINT FORMULATION AND TINTING
Credits: 3
Term: (F)
Co requisite: TB 248

This course provides instruction and practice in the process of mixing paint from tinting colors. Assigned lab projects will give students the opportunity to mix, adjust, and tint to achieve a blendable color match.

TB 250 PRODUCTION REFINISHING
Credits: 3
Term: (S)
Prerequisite: TB 249

Emphasis in this course will be on refining skills and increasing productivity and will be timed for comparison with industry standards.

TB 254 SPECIALTY FINISHES
Credits: 1
Term: (S)

Prerequisite: TB 253

This course provides instruction and practical experience in custom finishes as well as new production applications. Students will receive instruction and lab experience using metal flake, pearl, and candy.

TB 255 ESTIMATING COLLISION DAMAGE
Credits: 3
Term: (S)

This course will focus on instruction in the procedures of estimating collision and refinishing repairs. A study will be made of parts catalogs, flat-rate manuals, and computer estimation programs.

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Course Descriptions - Computer Information Technology (CIT)

CIT 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

CIT 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

CIT 206 DATABASE MANAGEMENT II
Credits: 3
Term: (S)
Prerequisite: CAPP 158

Database Management II explores database systems through practical database design, implementation and management topics. Basic data modeling concepts will be explored with respect to the major data models: relational, entity relationship model, hierarchical, network, and object oriented. The relational model will be stressed. Students will learn, using normalization techniques, how to avoid Data anomalies. Database implementation and management using Oracle SQL will be covered in depth.

CIT 229 WEB PAGE CONSTRUCTION
Credits: 4
Term: (F)
Prerequisites: CAPP 120, CAPP 101, or instructor approval

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 as well as search engine optimization, buying a domain name and hosting. Other utilities, such as image mapping and graphics editing software, will also be examined and utilized. Software is required; contact Distance Learning Office for details.

CIT 231 WEB PAGE DESIGN
Credits: 3
Term: (S)

Prerequisites: CAPP 120, CIT 229, or instructor approval

This course continues to utilize the skills developed in CIT 229 to build Web pages, concentrating on high profile, advanced applications to develop their craft. Students will research the essentials of good Web design and will master the skills necessary to create their own styles and designs. Management of community client sites will be established and published.

CIT 280 DESKTOP PUBLISHING
Credits: 3
Term: (S)
Prerequisite: CAPP 120 and GSDN 217 or instructor approval

Students learn to design, prepare, edit, and enhance publications by integrating text, graphics, spreadsheets, and charts that have been created in other software programs. They build skills in using a desktop publishing software program by creating publications such as newsletters, brochures, advertisements, programs, business cards, and stationery.

CIT 290 NEW WEB TECHNOLOGIES
Credits: 3
Term: (S)
Prerequisite: CAPP 120

With the ever-changing world of the Internet, adjustments and applications regularly appear that make
our interaction with others, both, actually and virtually, more rich, more interactive, and more immediate.
This course researches and examines these developments, making a thoughtful and deep analysis of the latest trends and implementations in Web technologies, along with developing judgments about their effectiveness and predictions about their enduring qualities.

Course Descriptions - Construction Trades (CSTN)

CSTN 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

CSTN 100 FUND OF CONSTRUCTION TECHNOLOGY
Credits: 3
Term: (F)
Co-Requisites: CSTN 115, CSTN 120, CSTN 160

This course is the Core Curriculum for Introductory Craft Skills under the National Center for Construction Education (NCCER). This course is NCCER's basic course for all construction, maintenance and pipeline occupations. This course covers basic safety obligations of workers, supervisors and managers; reviews the role of company policies and OSHA regulations; introduces trainees to hand and power tools widely used in the construction industry, and their proper uses. Students will also become familiarized with basic blueprint terms, components and symbols.

CSTN 115 CONSTRUCTION CALCULATORS & ESTIMATING
Credits: 1
Term: (F)
Co-Requisites: CSTN 110, CSTN 120, CSTN 160

This course is specific to the uses of calculator specific to construction. (I.e. Master Pro) for task such as weight, volume, rises/run, diagonals, slopes etc. Also included is basic estimating specific to the carpentry field.

CSTN 120 CARPENTRY BASICS & ROUGH-IN FRAMING
Credits: 5 (59 lecture hours/75 shop hours)
Term: (F)
Co-requisites: CSTN 100, CSTN 115, CSTN 160

This course covers eight different module topics. It starts by introducing the carpentry trade, including history, career opportunities, and requirements. The course includes study and practice required for framing a simple structure. Specific topics are building materials, fasteners and adhesives, hand and power tools, reading plans & elevations, floor systems, wall and ceiling framing, roof framing and windows and exterior doors.

CSTN 135 BASIC RIGGING
Credits: 2
Term: (S)
Co-Requisites: CSTN 145, CSTN 161, CSTN 171
Pre-Requisites: CSTN 100, CSTN 115, CSTN 120, CSTN 160

Following the NCCER Core Curriculum unit, the student will cover the basics of slings, hitches, rigging hardware, sling stress, hoist and rigging operations and practices. It also includes industry standard OSHA 10-hour construction training. Students who successfully complete the OSHA training will earn a course completion card recognized and generally required by most construction sites.

CSTN 145 EXTERIOR FINISHING, STAIR CONSTRUCTION & METAL STUD FRAMING
Credits: 4 (37 lecture hours/70.5 shop hours)
Term: (S)
Co-Requisites: CSTN 135, CSTN 161, CSTN 141
Pre-Requisites: CSTN 100, CSTN 115, CSTN 120, CSTN 160

Introduces students to materials and methods for thermal & moisture barriers, sheathing, exterior siding, stairs, and roofing. Students will layout and build a simple stair system as well as a metal stud wall with door and window openings.

CSTN 160 CONSTRUCTION CONCEPTS & BUILDING LAB
Credits: 3 (90 shop hours)
Term: (F)
Co-Requisites: CSTN 100, CSTN 115, CSTN 120

Provides hands-on experience in which the student applies, with minimal supervision the basic skills and knowledge presented thus far in the NCCER Carpentry Program. This course is designed as a practical task-oriented application utilizing the basic skills covered in prerequisite classes.

CSTN 161 CONSTRUCTION CONCEPTS & BUILDING LAB II
Credits: 3 (90 shop hours)
Term: (S)
Co-Requisites: CSTN 135, CSTN, 145, CSTN 171
Pre-Requisites: CSTN 100, CSTN 115, CSTN 120, CSTN 160

Provides hands-on experience in which the student applies with supervision the basic skills and knowledge presented thus far in the NCCER Carpentry Program. The course is designed as a practical
task-oriented application.

CSTN 171 SITE PREP, FOUNDATIONS & CONCRETE INSTALLATION
Credits: 3
Term: (S)
Co-Requisites: CSTN 135, CSTN 145, CSTN 161
Pre-Requisites: CNST 100, CSTN 115, CSTN 120, CSTN 160

A study of the various techniques for concrete utilization in residential and light construction from the theoretical concepts of hydration to the practical experience of verifying site conditions; interpreting data used to establish conditions of level, square, plumb, parallel; and perpendicular; tying steel; and placing and finishing a concrete slab.

CSTN 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student’s undergraduate transcript.

CSTN 201 ADVANCED CONCRETE WORKING
Credits: 5
Term: (S)
Co-Requisites: CSTN 220, CSTN 299
Pre-Requisites: WLDG 103, CSTN 230, CSTN 260

Provides basic knowledge of concrete materials and tools and provides hands-on experience in which the student applies with supervision those basic skills and knowledge presented in the area of concrete. The course is designed as a practical task-orientated application utilizing the basic skills learned in CSTN 171. The course will emphasize the advanced application in the area of concrete foundations, flatwork, forms, reinforcing, handling, and placing concrete.

CSTN 220 INTERIOR FINISHING
Credits: 5 (32 lecture hours/85.5 shop hours)
Term: (S)
Co-Requisites: CSTN 201, CSTN 299
Pre-Requisites: WLDG 103, CSTN 230, CSTN 260

This course studies interior building materials. Course material ranges from installation techniques for interior trim, countertop, base & wall cabinets, suspended ceiling, wood & metal doors.

CSTN 230 ADVANCED ROOF, FLOOR, WALL & STAIR SYSTEMS
Credits: 5 (62 lecture hours/43 shop hours)
Term: (F)
Co-Requisites: WLDG 103, CSTN 260
Pre-Requisites: CSTN 135, CSTN 145, CSTN 161, CSTN 171

This class takes off from where CSTN 120 & 130 finished. Students will elevate their study in various installation methods and materials for various roofing, & flooring systems. Under wall systems students will study interior & exterior wall construction methods for residential and commercial structures. To add to the student's knowledge learned in CSTN 145, Stair Construction & Metal stud framing, students will study staircase construction and metal building construction.

CSTN 260 CONSTRUCTION CONCEPTS & BUILDING LAB III
Credits: 3 (90 shop hours)
Term: (F)
Co-Requisites: WLDG 103, CSTN 230
Pre-Requisites: CSTN 120, CSTN 145, CSTN 161, CSTN 171

Provides students the opportunity to practice skills they have acquired in the entire carpentry program. It includes task-oriented projects in which students can apply many of the skills and knowledge that they have been presented throughout the NCCER Carpentry Program. This course is designed as a practical task-oriented exercise utilizing a variety of the skills covered in all the NCCER Modules and provides the necessary time for taking the Performance assessments' for certification under NCCER.

CSTN 298 INTERNSHIP: CARPENTRY
Credits: 3-6 (135 - 270 hours)
Term: (SU)
Pre-Requisites: CSTN 135, CSTN 145, CSTN 161, CSTN 171

An internship is individually based. The intent is to allow students who have meet the prerequisites an opportunity to experience work out in the industry before committing to full-time employment. Some students may use it as an opportunity to get employment within a company while many students will use it as a means of broadening their perspective as to types of construction work available and the daily operations of companies.

CSTN 299 CAPSTONE: CARPENTRY
Credits: 4 (120 shop hours)
Term: (S)
Co-Requisites: CSTN 201, CSTN 220
Pre-Requisites: WELD 151, CSTN 230, CSTN 260

The course is designed as a practical task-oriented application utilizing the ADVANCED skills learned in CSTN 220 & 230. The course will emphasize advanced application in the area of exterior and interior
finishing. This course provides hands-on experience in which the students take the Performance Assessments for certification under NCCER with MINIMAL supervision using the skills and knowledge
presented in the NCCER Carpentry program.

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Course Descriptions - College Studies (COLS)

COLS 089 DISTANCE LEARNING FUNDAMENTALS
Credits: 1
Terms: (F,S)

This course is designed for students who have never taken an online or hybrid course. Essential online course skills, troubleshooting techniques, and student success skills will be covered. Course activities will focus on developing the skills and confidence necessary to be successful when taking a course in an on-line or hybrid format. This enables students to select and use appropriate technologies for personal, academic, or career tasks.

COLS 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

COLS 100 EFFECTIVE ACADEMIC PRACTICES
Credits: 3
Terms: (F,S)

This course is designed to help students make a smooth transition to college academics and to help students maximize their potential in all courses. This course requires students to define their purpose in pursuing a college education, understand their learning preferences and implement learning and study strategies, become acquainted with professors, academic advisors, and resources at MSU–Great Falls as well as how to seek academic assistance, and set short and long term academic and career goals.

COLS 101 FIRST YEAR SEMINAR
This Class offered at the COT In Bozeman
Credits: 3
Term: (F)

This course serves as an introduction to college level critical thinking based on the central theme determined each semester. A cross-disciplinary approach will study the chosen theme through the lenses of areas such as biology, culture, literature, and history both in the classroom and beyond in field trip experiences. Potential themes include (but are not limited to) the Missouri River, the classic world, and the college experience. Individual participation in writing and the spoken word are encouraged by the small class size.

COLS 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification

requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Communication (COMM)

COMM 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

COMM 120 INTERPERSONAL SKILLS IN THE WORKPLACE
Credits: 1
Term: (S)

This course covers the basic elements of communication in the business environment, including listening, speaking, and reading. It also looks at the importance of nonverbal communication, ethics, and professional courtesy. It discusses the importance of internal skills within the business and external skills with customers. Skills of the employment process are also included.

COMM 130 PUBLIC SPEAKING
Credits: 3
Terms: (F,S)

Public Speaking is a course designed to aid students in overcoming speech anxiety through preparation and presentation of speeches in a variety of formats.

COMM 135 INTERPERSONAL COMMUNICATION
Credits: 3
Terms: (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.

COMM 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

Course Descriptions - Computer Science/Programming (CSCI)

CSCI 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

CSCI 110 PROGRAMMING W/ VISUAL BASIC I
Credits: 3
Term: (F)
Prerequisites: CAPP 120, CAPP 158, M 095, or instructor approval

This course is an introduction to programming logic and computer problem-solving using aprogramming 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.

CSCI 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

CSCI 210 WEB PROGRAMMING
Credits: 3
Term: (S)
Prerequisites: CIT 229

Among Web page builders and programmers there is a necessity to build pages that include programming to allow interaction between the visitor and the site as well as connectivity to databases that serve the client and site owner. Web Page Programming will explore, examine, and evaluate currently used programming languages that allow Web interactivity and connectivity. Students will be required to design pages using various languages in ways that lead the mission of the site to its desired outcomes. The overall objective of the course will be an assembly of
useful programming tools, processes and examples for the Web designer.
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Course Descriptions - Dental Assistant (DA)

DA 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

DA 115 HEAD, NECK AND ORAL ANATOMY
Credits: 4
Term: (F)

The majority of this course includes content in head, neck and dental anatomy. Oral tissue embryology and histology and general human anatomic and physiologic concepts are introduced by the instructor. Tooth numbering systems and cavity classifications are emphasized as a supplement to the dental anatomy portion. Students successfully completing this course will be able to apply basic oral anatomic theory to laboratory and clinical settings.

DA 118 DENTAL OFFICE MANAGEMENT
Credits: 2
Term: (F)

This course exposes students to various reception procedures and dental practice management responsibilities commonly expected in a professional dental office. Students will learn the fundamentals of computer use in the dental practice by utilizing a dental office software package. Skills include creating patient records and a database to set up patient accounts, schedule appointments, bill patient and third parties, and process payments and reports. HIPAA regulations and other legal expectations within the healthcare field will also be discussed. This course is offered in hybrid format with both on-line and on-site requirements.

DA 120 ORAL RADIOLOGY/RADIOGRAPHY I
Credits: 3
Term: (F)

This course is the first of a series of two courses and includes both didactic and laboratory instruction. Content in this course includes the history of oral radiography, radiation, physics, x-ray equipment supplies and darkroom procedures, infection control practice, intraoral technique, biological effects of radiation, radiation protection and anatomic landmark identification and mounting. The practical component applies radiographic theory and technique in practice.

DA 121 ORAL RADIOLOGY/RADIOGRAPHY II
Credits: 2

Term: (S)
Prerequisite: DA 115, DA 120

Oral Radiology/Radiography II includes didactic, laboratory, and clinic instruction. Content in this course emphasizes extraoral, and perfection of intraoral techniques, quality assurance in radiography, radiograph interpretation and assessment, and application of theory in the lab/clinic setting. A student satisfies the practical portion of this course by successfully performing both paralleling and bisecting intraoral periapical techniques, by exposing horizontal, vertical, pedodontic, and anterior bitewings, exposing occlusal radiographs, and demonstrating proper panoramic exposure. Other content sections include biological effects of radiation, radiation protection, specialty techniques,
identification and correction of faulty radiographs, and digital radiography. Students are expected to obtain their own prescription patients for final full mouth series. Dental assistant program students
will be prepared to sit for the oral radiology component of the Dental Assisting National Board (DANB) examination upon successful completion of this course.

DA 123 CHAIRSIDE THEORY AND PRACTICE I
Credits: 4
Term: (F)
Corequisite: DH 110

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). Infection control practice is heavily emphasized throughout this course.

DA 124 CHAIRSIDE THEORY AND PRACTICE II
Credits: 4
Term: (S)
Prerequisite: DA 115, DA 123

Chairside II is a continuation of Chairside I and includes lecture, laboratory and clinical sessions. Content includes emphasis on aesthetic restorative procedures, rubber dam concepts, coronal polishing, pit and fissure sealant placement, fluoride treatments, and fabrication and placement of temporary crowns and restorations.

DA 150 DENTAL SCIENCES/PREVENTIVE DENTISTRY
Credits: 4
Term: (S)
Prerequisite: DA 115, DA 123

This course includes the study of the oral plaque diseases and their prevention as well as an introduction to the science-based subjects of oral pathology, pharmacology, nutrition, and medical emergencies. Focus will be on the theory of the oral plaque diseases processes, the identification of associated pathologies, and the prevention of the diseases. Specific content areas also include drug classifications and interactions, fluoride, oral hygiene technique, and patient education.

DA 165 DENTAL SPECIALTIES
Credits: 3
Term: (S)
Prerequisites: DA 115, DA 123

The clinical specialties course includes an introduction to six dental specialties: periodontics; endodontics, fixed and removable prosthodontics, oral surgery, pediatric dentistry and orthodontics. It includes theory in the individual specialties along with procedure set-ups (armamentarium), materials used, and instrumentation. The student will also apply the knowledge in a laboratory procedures setting.

DA 190 CLINICAL OFFICE PRACTICE AND SEMINAR
Credits: 7
Term: (SU)
Prerequisites: Program director approval required to enroll.

This is the capstone course for the program and requires the student to integrate and apply all dental concepts from earlier coursework in the clinical setting. It involves rotated extramural clinical office experience in the dental community where students actively participate in the operation of the dental practice as dental assistants in training. The on-line component of the course introduces a student to job search strategies and preparation of personal resumes and cover and follow-up letters. Interview techniques are also incorporated. This course is offered in hybrid format having both on-line and on-site requirements.

DA 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Dental Hygiene (DH)

DH 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

DH 101 INTRODUCTION TO DENTAL HYGIENE/PRECLINIC
Credits: 2 (30 Lecture Hours)
Term: (F)
Prerequisite: Acceptance into the Dental Hygiene Program

An introductory course in preoperative and clinical dental hygiene concepts. The assessment phase of patient care as well as the theory of basic dental hygiene instrumentation will be emphasized.

DH 102 INTRODUCTION TO DENTAL HYGIENE/PRECLINIC LAB
Credits: 2 (60 Lab Hours)
Term: (F)
Prerequisite: Acceptance into the Dental Hygiene Program

This course enables students to perform clinical dental hygiene procedures explored in DH 101. The basic clinical skills used during patient assessment and basic dental hygiene instrumentation will be emphasized.

DH 110 THEORY of INFECTION CONTROL AND DISEASE PREVENTION
Credits: 1 (15 Lecture Hours)
Term: (F)
Prerequisite: Acceptance into the Dental Hygiene Program

This course introduces the infection and hazard control procedures necessary for the safety of dental professionals and their clients during the practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic
techniques, infectious diseases, and OSHA standards.

DH 118 ORAL ANATOMY FOR HYGIENISTS
Credits: 3 (45 Lecture Hours)
Term: (F)
Prerequisite: Acceptance into the Dental Hygiene Program

The majority of this course includes content in head, neck, and dental anatomy. Oral tissue embryology, histology, and physiology are also introduced and general anatomical concepts are reviewed by the instructor. Anatomic design and tooth numbering systems are emphasized as a supplement to the dental anatomy portion. Students successfully

completing this course will be able to apply basic oral anatomic theory to laboratory and clinical settings.

DH 122 ORAL RADIOLOGY/LAB
Credits: 3 (15 Lecture Hours / 30 Lab Hours)
Term: (S)
Prerequisite: Acceptance into the Dental Hygiene Program

This course provides a basic understanding of the fundamentals of dental radiology. Emphasis will be placed on the following foundational knowledge: radiation physics, radiation biology, and radiation health and protection. Students will be required to learn the diagnostic quality of dental radiographs, Intraoral and Extraoral radiographic techniques, processing and film mounting, quality control and assurance, special imaging techniques, interpretation of radiographs for exposure and processing errors as well as recognition of normal radiographic anatomy. Hands –on experience with both traditional and digital radiography will be provided via lab sessions. DXXTR manikins will be utilized by the students in lab sessions as well as community patients which will aid in better understanding and experience in all techniques.

DH 123 RADIOGRAPHIC INTERPRETATION
Credits: 1 (15 Lecture Hours)
Term: (S)

This course is a continuation of DH 122; Oral Radiology. The course will provide the skills needed to properly interpret and read what is revealed by a radiograph. Interpretation is an explanation of what is viewed on a radiograph. Proper interpretation of dental radiographs can function as a diagnostic and educational tool for treatment planning.

DH 130 DENTAL MATERIALS
Credits: 2 (15 Lecture Hours / 30 Lab Hours)
Term: (F)

Materials most often used in dentistry are studied, focusing on the characteristics, physical properties, instruction on manipulation, and practical application of each material. Safety precautions relating to each material and procedure are emphasized.

DH 150 CLINICAL DENTAL HYGIENE THEORY I
Credits: 2 (30 Lecture Hours)
Term: (S)

This course provides foundational knowledge and basic theory for the practice of Dental Hygiene. Topics include: defined roles of the dental hygienist, dental hygiene process of care, caries and periodontal risk assessment, dental hygiene care plan, nutritional counseling, oral hygiene instruction, proper documentation, medical/dental emergencies and instrument sharpening. Theory background is used to support all clinical activities in DH 151.

DH 151 CLINICAL DENTAL HYGIENE PRACTICE I
Credits: 4 (180 Clinical Hours)
Term: (S)

Practice in beginning instrumentation and patient assessment, providing introductory dental hygiene treatment to fellow students along with pediatric and adolescent patients. This course accompanies DH 150 Clinical Dental Hygiene Theory I.

DH 160 PERIODONTOLOGY I
Credits: 3 (45 Lecture Hours)
Term: (S)

An introduction to the science and management of periodontal diseases. Emphasis on the

etiology and classification of the disease, along with an overview of the anatomy and histology of periodontal structures and dental accretions. The dental hygienists role in the recognition, prevention, and therapeutic procedures of the disease will be explored. This course will correlate theory with clinical activities in DH 151.

DH 165 ORAL Histology and EMBRYOLOGY
Credits: 2 (30 Lecture Hours)
Term: (S)

This course provides a basic understanding of the histologic structures of the head and neck region and the amazing process of embryonic development. The field of oral histology and embryology and its pertinence to clinical dental hygiene will be explored.

DH 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

DH 201 PERIODONTOLOGY II
Credits: 2
Term: (SU)

This course is a continuation of DH 160; Periodontology I. This course is an advance study of periodontology with special emphasis on various treatment modalities and their rationale in clinical dentistry. The course will include discussion on periodontal disease progression, treatment plan sequence, instrumentation, and antimicrobials used to decrease periodontal progression, treatment plan sequence, instrumentation and antimicrobials used to decrease periodontal disease progression. This course will correlate with DH 210 and DH 211.

DH 210 CLINICAL DENTAL HYGIENE THEORY II
Credits: 2 (30 Lecture Hours)
Term: (SU)

A continuation of DH 150, this course increases the emphasis on the principles of instrumentation in periodontal therapy. Topics will include power scaling, air powered polishing, tobacco cessation, and effective ergonomic principles. Students will be introduced to various adjunctive services that can be integrated to provide comprehensive patient care. Theory background is used to support activities in DH 211.

DH 211 CLINICAL DENTAL HYGIENE PRACTICE II
Credits: 4 (180 Clinic Hours)
Term: (SU)

A continuation of DH 151, this course provides additional practical experience in clinical patient treatment with an emphasis on early periodontal disease and subgingival deposits. Offered in conjunction with DH 210.

DH 215 GENERAL AND ORAL PATHOLGY
Credits: 3 (45 Lecture Hours)
Term: (F)

Pathology is the science that studies diseases. This course will present various pathologic processes; including pathogenesis, etiology, inflammation, tumor development, systemic manifestations, and
developmental disturbances. This course emphasis is the study of oral diseases and the recognition of their conditions. Students will utilize this information during their clinical practice.

DH 220 DENTAL NUTRITION HEALTH
Credits: 3 (45 Lecture Hours)
Term: (F)
Prerequisite: Acceptance into the Dental Hygiene Program

To understand the science of human nutrition and the application of basic nutrition principles to achieve optimal nutritional status throughout the life cycle. To understand the impact of nutrition on oral health and the impact of oral health on nutritional status. Enrollment limited to dental hygiene students and students with instructor permission.

DH 230 COMMUNITY DENTAL HEALTH AND EDUCATION
Credits: 2 (30 Lecture and Community Service Hours)
Term: (S)

A presentation of various methods and material used in community dental health education. The course provides an understanding of basic research and statistical concepts needed for sound community health practices. Emphasis on the use of evidenced based philosophy for acquiring, assessing, interpreting, critically analyzing, and incorporating scientific literature into community health practices. Field assignments in selected social settings and projects will encourage student participation in community dental health care.

DH 235 PROFESSIONAL ISSUES & ETHICS IN DENTAL PRACTICE
Credits: 2 (30 Lecture Hours)
Term: (S)

A study of the legal restrictions and ethical responsibilities associated with the practice of dental hygiene and dentistry.

DH 240 LOCAL ANESTHESIA / NITROUS OXIDE THEORY AND LAB
Credits: 2 (15 Lecture Hours and 30 Lab Hours)
Term: (S)

This course is a combination of didactic learning as well as hands- on experience with a lab component. The course builds upon prior foundational knowledge of neurophysiology and dental anatomy as well as introducing pharmacology of local anesthetics and vasoconstrictors. Considerable attention is spent on the following areas; specifically as they pertain to the proper administration of dental local anesthesia: the drugs, the armamentarium, the techniques, and the complications. Emphasis will be placed on Emergency Medicine in the dental office to assure proper preparation and management of common medical emergencies. Nitrous Oxide/Oxygen Sedation will focus on equipment and safety as well as systemic effects and administration techniques.

DH 241 GERONTOLOGY & SPECIAL NEEDS PATIENTS
Credits: 2 (30 Lecture Hours)
Term: (F)

This course provides preparation for clinical experiences with geriatric and special needs patients. The course will explore the aging process from a physical, social, psychological and financial perspective as well as the disease processes of special needs individuals. Emphasis will be placed on accommodation and innovative management to help determine patient treatment.

DH 250 CLINICAL DENTAL HYGIENE THEORY III
Credits: 1 (15 Lecture Hours)
Term: (F)

A continuation of DH 210, this course expands beyond the basic concepts of dental hygiene theory with exposure to more difficult oral conditions and various modes of treatment.

Topics include: effective patient communication, aspects of cultural diversity in regard to patient communication and treatment, dental hygiene care plan, phases of treatment, coding treatment, and root morphology, advanced instrumentation and advanced fulcrums. Students will be introduced to formulating a case study and will utilize theory background to support all clinical activities in DH 251.

DH 251 CLINICAL DENTAL HYGIENE PRACTICE III
Credits: 5 (225 Clinical Hours)
Term: (F)

A continuation of DH 211, this course provides clinical activities with increased patient difficulty exhibiting moderate to advanced periodontal involvement and moderate deposits along with increased patient load. This course is offered in conjunction with DH 250.

DH 280 CLINICAL DENTAL HYGIENE THEORY IV
Credits: 1 (15 Lecture Hours)
Term: (S)

A continuation of DH 250, this course includes advanced dental hygiene theory that will increase the student's knowledge of the profession. Attention will be given with preparation for the National Board and Regional Board exams. Students will continue to explore both Advanced and Reinforced instrumentation techniques as well as Extraoral Fulcruming techniques. Emphasis will be focused toward exploration of the Dental Specialties specifically; Periodontics, Pedodontics, Oral Surgery, and Prosthodontics. Students will continue building their case study and present the case to faculty and peers. Theory background will be used to support all activities in DH 281.

DH 281 CLINICAL DENTAL HYGIENE PRACTICE IV
Credits: 5 (225 Clinical Hours)
Term: (S)

A continuation of DH 251, this course provides multiple clinical experiences focused in time management, increased periodontally involved patient treatment, demonstration of being safe to practice by successfully completing required competency assessments. This course will challenge the students' critical thinking skills in the development of a personal learning contract. This activity is designed to allow students in their last clinical course of the program to reflect on their weaknesses to set objectives and provide evidence that they have accomplished clinical improvements along with exploration of individual interest for future aspirations. This course is in conjunction with DH 280, Clinical Dental Hygiene Theory IV.

Course Descriptions - Drafting (DRFT)

DRFT 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

DRFT 120 BLUEPRINT READING
Credits: 2
Term: (F)

This course will introduce blueprints and emphasize reading. Topics covered will include basic lines, basic views, title block information, dimensions, structural shapes, auxiliary views, section views, detail prints, symbols, scaling, acronyms found in different industries, and other various blueprint information.

DRFT 131 TECHNICAL GRAPHICS I
Credits: 4
Term: (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
Term: (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 140 PROFESSIONAL PRACTICES
Credits: 3
Term: (S)

Interviewing, work ethic, writing a resume, professional dress and presentation, first impressions, overview of the field, potential careers in the field, guest speakers from various parts of the industry, job shadows, and site visits.

DRFT 156 INTRODUCTION TO CAD
Credits: 3
Term: (F in GF only; S in BZ only)

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 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

DRFT 201 RESIDENTIAL DRAFTING
Credits: 3
Term: (F)
Prerequisite: DRFT 132

The development of the principles in construction drawings of an average wood frame residential structure is the basis of this course. A complete set of working drawings will be developed.

DRFT 205 MACHINE DRAFTING
Credits: 3
Term: (S)
Prerequisite: DRFT 131

This course is a study and application of standards used for producing working drawings, including the fundamentals of geometric dimensioning and tolerance. Both detail and assembly drawings will be produced.

DRFT 244 TOPOGRAPHIC MAPPING AND GIS APPLICATIONS
Credits 3
Term: (S)
Prerequisite: DRFT 156

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
Term: (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.

DRFT 260 AEROSPACE DRAFTING
Credits: 3
Term: (S)
Prerequisite: Coming soon.

Course description coming soon.

DRFT 261 CIVIL DRAFTING
Credits: 3
Term: (S)
Prerequisite: Coming soon.

Course description coming soon.

DRFT 298 INTERNSHIP
Credits: 4
Term: (S)
Prerequisite: Coming soon.

Course description coming soon.

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Course Descriptions - Economics (ECNS)

ECNS 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

ECNS 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

ECNS 201 PRINCIPLES OF MICROECONIMICS
Credits: 3
Term: (F based on sufficient demand)

This course examines the subsystems of the economy such as the economics of the individual, the firm, and the industry. Study includes analysis of the pricing mechanism of the economy and the theories of income distribution.

ECNS 202 PRINCIPLES OF MACROECONIMICS
Credits: 3
Term: (S based on sufficient demand)

This course presents the principles underlying the operation of a macroeconomic system through the study of the national and world economies as a whole. Topics explored include gross domestic product, full employment, economic growth, surplus and deficits, income distribution, balance of trade, protectionism, government policies, and international trade.

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Course Descriptions - Education (EDU)

EDU 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

EDU 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

EDU 200 INTRODUCTION TO EDUCATION
Credits: 3
Terms: (F, S)

This class explores the profession of teaching by connecting theory to real-life experiences in the field. Students will cover the development of students, diversity, learning strategies, motivation, classroom management, assessment of learning, and construction of a professional portfolio through seminar discussions, in school observations, interviews, and personal reflection.

EDU 211 MULTICULTURAL EDUCATION
Credits: 3
Terms: (S based on sufficient demand)

This course helps current and future teachers reflect on their own heritage and how it relates to people of other economic, social cultural, ethnic, gender, religious, and sexual orientation groupings. An emphasis is placed on democratic community building in a multicultural society.

EDU 221 EDUCATIONAL PSYCHOLOGY & MEASUREMENT
Credits: 3
Terms: (F,S)

This course explores the physical, psychological, and cognitive development in students of all ages within the contexts of education, family, and society. Emphasis is given to applying brain-based research, stages of learning, and psychological factors influencing the learning process to classroom management and educational evaluation.

EDU 270 INSTRUCTIONAL TECHNOLOGY
Credits: 3
Terms: (F, S)
Prerequisite: CAPP 120, 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.

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Course Descriptions - Emergency Medical Services (EMS)

EMS 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

EMS 102 FUNDAMENTALS OF ADVANCED CARE
Credits: 3
Term: (F)
Prerequisite: Consent of faculty required.

This course provides an introduction to the practice of paramedicine and will provide the student with information regarding preparatory aspects of the pre-hospital environment. Topics include: role and responsibilities of the Paramedic, well being of the Paramedic, injury prevention, medical-legal issues, Ethics, assessment and management, communication and documentation, pharmacology, venous access and medication administration, as well as airway management and ventilation.

EMS 105 EMT-PARAMEDIC I
Credits: 3
Term: (F)
Prerequisite: Instructor approval required
Note: Formal acceptance into EMT-P program

This course provides the student with information and skill development in the areas of Anatomy and Physiology, Pathophysiology, and life span development. This course also covers infections and communicable diseases, behavioral, Gynecology, Obstetrics, and neonatology emergencies.

EMS 110 EMT-PARAMEDIC I/II SKILLS LAB
Credits: 2
Term: (F)
Prerequisite: Instructor approval required
Note: Formal acceptance into EMT-P program

This course provides the student with laboratory experience in the areas of assessment, physical examination, history gathering, basic and advanced airway management skills, pharmacology and the initiation and management of fluid therapy(topics covered in Fundamentals of Advance Care), as well as reinforcement and application of the medical emergencies covered in Paramedic 1 and 2.

EMS 115 EMT-PARAMEDIC II
Credits: 3

Term: (F)
Prerequisite: Instructor approval required.
Note: Formal acceptance into EMT-P program

This course will build upon the instructional imperatives of Paramedic I and introduce the student to cardiac emergencies, pulmonary emergencies, neurological emergencies, endocrine emergencies, and allergies and anaphylaxis emergencies.

EMS 120 EMT-PARAMEDIC I/II CLINICAL & FIELD INTERNSHIP
Credits: 3
Term: (F)
Prerequisite: Instructor approval required.

This course introduces Paramedic students into the introductory phases I (BLS) and phase II (initial ALS) of their clinical and internship experience with a focus of the ER, OR, Ambulance ride along, and may include clinical floor experience in the areas of OB, Behavioral, and ICU.

EMS 130 FIRST RESPONDER
Credits: 3
Term: (Under Review)
Prerequisite: Must be 18 years of age to take certification examination

This course is the nationally recognized emergency medical entry level to the emergency services industry. The course provides didactic and practical experience concerning initial assessment and immediate management of trauma and medical patients. Successful course completion will allow the student to enter the Montana First Responder authorization process. All aspects of authorization/certification are the responsibility of the student.

EMS 137 EMERGENCY MEDICAL TECHNICIAN BASIC (EMT-B)
Credits: 6 (4 lecture, 2 skills lab)
Term: (F, S, SU)
Prerequisite: Must be 18 years of age to take certification examination

This course is the nationally recommended minimum level of training for ambulance personnel and is considered the desired level of medical training by many fire departments. The course focuses on skill development in the primary responsibilities of the EMT-B, which are to bring emergency medical care to victims of emergencies, to stabilize their condition, and to transport them safely and expeditiously to an appropriate facility. This course is a combination of classroom work and practical experience. Upon successful completion of the course, graduates are eligible to sit for the Montana and National Registry certification examinations. All aspects of authorization/certification are the responsibility of the student.

EMS 140 EMT-INTERMEDIATE I (EMT-I)
Credits: 4 (3 lecture, 1 skills lab)
Term: (F, S based on sufficient demand)
Prerequisite: Formal acceptance into EMT-I course, EMT-Basic National Certification, and minimum of one year patient care experience as an EMT B prior to sitting for the National Registry Certification Examination; Current certification in CPR according to AHA Healthcare Provider
standards or its equivalent; approved for admissions by the Medical Director.

This course is designed to bridge a nationally perceived void between the EMT-B and EMT-P levels of certification. The EMT-I will be utilized in systems where the pre-hospital care provider is required to perform skills beyond those of the EMT-B but where EMT-P level care is unavailable or unattainable. This course will refine the life-saving skills of the EMT-B in addition to providing the student with supplementary advanced life support skills that can significantly improve the quality of pre-hospital care. Course topics will include the professional roles and responsibilities of the EMT-I as well as focusing on EMS systems, medical control, medicolegal considerations, communications, medical terminology, advanced patient assessment, and the pathophysiology of shock. Student must be high school graduate or equivalent to take certification examination.

EMS 145 ACLS PREPARATION
Credits: 1
Term: (F)
Prerequisite: Instructor approval required.

This course is based upon the American Heart Association course which is considered the national standard of care for advanced providers caring for cardiac patients. The program includes didactic and skills training in cardiac anatomy and physiology, acid base balance, pharmacology,
cardiac rhythm interpretation, monitor/defibrillator operation, and patient care algorithms.

EMS 146 PALS PREPARATION
Credits: 1
Term: (S)

This course is based upon the American Heart Association course that is considered the national standard of care for advanced providers caring for pediatric patients in the arrest situation. This course includes didactic and skills training in pediatric anatomy and physiology, assessment,
airway management, pharmacology, cardiac rhythm interpretation, monitor/defibrillator operation, and patient care algorithms.

EMS 148 PRE HOSPITAL TRAUMA LIFE SUPPORT
Credits: 1
Term: (S)

This course is designed to provide the advanced EMT with trauma specific knowledge and skills. The program emphasizes rapid recognition, management, and transportation of the critical patient. Course topics include mechanism of injury, assessment, advanced airway management, respiratory injuries and management, recognition and management of shock, intravenous therapy, head injuries, spinal injuries and special situations. The program was developed by the National Association of Emergency Medical Technicians and is utilized throughout the United States.

EMS 155 EMT-INTERMEDIATE II
Credits: 3
Term: (S, F based on sufficient demand)

This course is a continuation of EMT - Intermediate I. This course will refine the knowledge and skills of Intermediate I in addition to providing the student with additional advanced life support skills. Course topics will include, advanced patient assessment, advanced airway management, IV therapy and shock management. Students will also be introduced to pharmacology and pharmacological interventions.

EMS 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

EMS 205 EMT-PARAMEDIC III
Credits: 3
Term: (S)
Prerequisite: Successful completion of Paramedic I/II or Faculty approval

This course will continue with medical emergencies and focus on gastroenterology, urology, toxicology, hematology, and environmental conditions as they apply to the emergent pre-hospital arena. The second part of this course will focus on trauma consisting of trauma

systems and mechanism of injury, hemorrhage and shock, soft tissue trauma, burns, head and facial trauma, spinal trauma, thoracic trauma, abdominal trauma, and finally musculoskeletal trauma.

EMS 210 EMT-PARAMEDIC III/IV SKILLS LAB
Credits: 2
Term: (S)
Prerequisite: Instructor approval required.

This course is a continuation of the fall skills lab with reinforcement and application of topics already covered. Paramedic spring skills lab will also introduce new skill sets, such as assessment and management of Pediatric Advance life Support (PALS), trauma, and complete remaining medical emergencies covered in Paramedic 3 and 4 classes.

EMS 217 EMT-INTERMEDIATE III
Credits: 4 (3 lecture, 1 skills lab)
Term: (S,SU based on sufficient demand)

This course is a continuation of EMT-Intermediate II and is designed to emphasize the new information in the I-99 curriculum. This course will refine the knowledge and skills of Intermediate I and II in addition to providing the student with additional advanced life support skills. Course topics will include pharmacology, medication administration with an emphasis in cardiac, cardiology and cardiac monitoring, advanced cardiac life management, advanced patient assessment, further advanced airway management, IV therapy and shock management.

EMS 220 EMT-PARAMEDIC III/IV CLINICAL AND FIELD INTERNSHIP
Credits: 4
Term: (S)
Prerequisite: Instructor approval required.

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 are expected to complete their clinical (in hospital) experience in anticipation of starting their internship. Students will continue to interact with hospital staff in clinical areas such as Pediatrics, OBGYN, ICU, CICU, Behavioral, OR, and ER. Students also continue ambulance ride along with an area of focus specific of advance life support, phase II in evaluation.

EMS 222 EMT-INTERMEDIATE I CLINICAL
Credits: 1
Term: (F, S based on sufficient demand)

This course includes hospital and surgical center rotations such as Benefis Healthcare, Great Falls Clinic Medical Center. As well as ambulance ride along/internship experiences at places such as Great Falls Emergency Services.

EMS 223 EMT-INTERMEDIATE INTERNSHIP
Credits: 1
Term: (SU)

This course is the final stage of the EMT-Intermediate technical core classes. This course emphasizes team leadership as an EMT-Intermediate student.

EMS 225 EMT-PARAMEDIC IV
Credits: 3
Term: (S)
Prerequisite: Successful completion of Paramedic I/II or instructor approval

This course will complete the student’s investigation into medical emergencies and will focus

upon pediatric emergencies and emergencies in the elderly. Other special considerations will include, abuse and assault, patients with special challenges, and acute interventions for the chronic care patient. Specific operations will also be addressed including ambulance operations, medical incident command, rescue awareness and operations, hazardous materials incidents, and crime scene awareness. Additionally, it will be within the scope of this course to prepare the successful candidate for the rigorous National Registry Certification examination.

EMS 227 EMT-INTERMEDIATE II CLINICAL
Credits: 2
Terms: (S, SU based on sufficient demand)

This course is a continuation of I Clinical with primary emphasis placed on hospital emergency department rotations as well as field internship experiences at places such as Benefis Healthcare, Great Falls Emergency Services.

EMS 233 INTERNSHIP
Credits: 6
Term: (SU)

This course is the final stage of the paramedic technical core classes, with 360 minimum numbers of hours. This course continues with the application of advance life support skills and assessment techniques (phase II), transitioning into team leadership (phase III) as a paramedic student.

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Course Descriptions - English (ENGL)

ENGL 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

ENGL 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

ENGL 217 CREATIVE WRITING
Credits: 3
Term: (Based on Sufficient Demand)

This course provides the student an opportunity to develop creative writing skills in the context of poetry and short fiction. Students will respond to the works of published authors, including selections by and about minorities and women. Conducted in a workshop atmosphere, students will write, revise, and respond and review their original work, and then submit a final portfolio containing three revised poems and a revised short story.

ENGL 218 CREATIVE WRITING WORKSHOP
Credits: 1
Term: (Based on Sufficient Demand)
Prerequisite: ENGL 217 or instructor approval

This course is a 3-day pass/fail residency workshop with emphasis on poetry and short fiction. Students will explore imaginative writing during the day and critical appraisal and revision techniques in evening sessions. Students will gain experience, also, in the oral presentation of original written works.

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Course Descriptions - Fire & Rescue Technology (FRS)

FRS 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

FRS 101 FIREFIGHTER I
Credits: 5
Term: (Contact Fire Training School)

This course requires the student to perform basic firefighter skills within the context of the fireground. Integration of skills is validated through successful completion of the State Certification Examination for Firefighter I.

FRS 102 FIREFIGHTER II
Credits: 5
Term: (Contact Fire Training School)

This course requires the student to perform advanced firefighter skills within the context of the fireground. Integration of skills is validated through successful completion of the State Certification Examination for Firefighter II.

FRS 107 AIRCRAFT FIRE AND RESCUE
Credits: 3
Term: (Contact Fire Training School)

Provides basic knowledge of aircraft types and systems, rescue equipment, airfield characteristics, and aircraft rescue and firefighting procedures (ARFF). Must meet the requirements of the class offered through the Helena College of Technology or equivalent.

FRS 112 FIRE INSPECTION AND INVESTIGATION
Credits: 3
Term: (Contact Fire Training School)

This course provides the student an overview of fire prevention activities including code enforcement, recognition of common fire hazards, and the basic techniques and procedures of fire investigation. Integration of knowledge is validated through completion of an approved project that applies to an actual situation or problem.

FRS 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide

students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

FRS 241 FIRE DEPARTMENT INTERNSHIP
Credits: 3
Term: (Contact Fire Training School and Program Advisor)

This 45 hour internship is designed to give the student experience in various aspects of fire department operations. The student, with approval from the fire chief and program advisor will develop a plan, goals and objectives for the internship.

FRS 245 FIRE SERVICE TRAINING & SAFETY EDUCATION
Credits: 3
Term: (Contact Fire Training School)

This course will introduce the student to adult education using contextual methodology, the basics of public fire safety education, and how education, enforcement, and prevention interact to mitigate community hazards. Students will apply their learning toward completion of an approved project.

FRS 250 BUILDING CONSTRUCTION
Credits: 2
Term: (Contact Fire Training School)

This course provides an introduction to the special characteristics of non-combustible, fire resistive, frame, and ordinary construction as they apply to fire services. The primary emphasis is on improving the fire officer's ability to ensure firefighter safety by recognizing common causes and indicators of structural collapse, component failure or other hazards related to building construction.

FRS 265 INCIDENT MANAGEMENT AND SAFETY
Credits: 3
Term: (Contact Fire Training School)

This course provides the student with an overview of the structure, function and expandability of an Incident Management System (IMS) as well as the command skills necessary to effectively utilize an IMS, guidelines and practice in applying an IMS, resources for implementation of a departmental IMS, and techniques and approaches related to firefighter safety and survival. Students will complete an approved project to demonstrate integration of learning.

FRS 270 TACTICAL OPERATIONS & COMPANY MANAGEMENT
Credits: 5
Term: (Contact Fire Training School)

NFPA 1021 Fire Officer 1: This intensive 80 hour course teaches the skills required to succeed at the first level of fire service supervision (NFPA 1021, level 1). Success in the course and testing results in certification as a Fire Officer 1. Simulations are used for both incident management and human relations skills.

FRS 285 HAZARDOUS MATERIALS
Credits: 5
Term: (Contact Fire Training School)

NFPA 472 Hazardous Materials Technician: This intensive 80 hour class teaches the skills required to perform at the hazardous materials technician level (NFPA 472).

FRS 290 WILDLAND FIRE PROTECTION
Credits: 3
Term: (Contact Fire Training School)

All classes offered through Montana DNRC. Refer to MT DNRC for course descriptions.

FRS 291 HYDRAULICS AND WATER SUPPLIES
Credits: 3
Term: (Contact Fire Training School)

Covers the scope of water supply operations in the fire service. Includes pre-planning operations, water supply requirements, source options, delivery systems and options, and hydraulic calculations.

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Course Descriptions - Graphic Design (GSDN)

GDSN 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

GDSN 100 INTRO TO GRAPHIC DESIGN SEMINAR
Credits: 1
Term: (F)

This course is designed to introduce students to the career field of graphic design. Through exploratory activities focused on the different occupational fields graphic designers work in, students will gain an insight into the field of graphic design. Field trips to companies employing graphic designers will be incorporated into class.

GDSN 109 DIGITAL PHOTOGRAPHY
Credits: 4
Term: (S)
Prerequisite: CAPP 120 or permission of instructor

This course will instruct the student in fundamental concepts and techniques of photography, including aesthetics and technical aspects as a basis for creating a photographic image. The student will learn to use the camera, digital processing, and composition. Students will be
introduced to the techniques of digital photography and computer imaging. Students will learn how to use photography as a creative tool for self-expression, social exploration, and still documentation.

GDSN 130 TYPOGRAPHY
Credits: 3
Term: (S)
Prerequisite: CAPP 120 or permission of instructor

The eye is trained to appreciate the sensibilities and subtleties of typographic conventions such as kerning, leading, style, and practice. Students will gain a full understanding of vocabulary surrounding letter forms and the design of text. Symbolic communication inherent in different typefaces is also explored. Typographic relationships with other graphic elements are investigated through brochures, posters and other two-dimensional projects.

GDSN 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification

requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

GDSN 217 DIGITAL DESIGN
Credits: 3
Term: (F)
Prerequisite: CAPP 120

Graphic design is a form of visual communication that sends a specific message to a specific audience. This course takes a thorough look into brainstorming, strategies/ techniques with graphics and layout, and the tools/equipment used to accomplish the design/concept at hand. The overall objective of the course will be a thorough examination and use of Adobe Photoshop to assemble strategies/processes and a firm understanding of the role of graphic design in print and web
presentation.

GDSN 220 DIGITAL ILLUSTRATION & PACKAGING
Credits: 3
Term: (F)
Co-requisite: GDSN 217

This is an intensive examination of materials and processes as they relate to the manipulation of forms for packaging. Through an understanding of the qualities inherent in various packaging materials, students produce a variety of packaging solutions dealing with shape, form and volume. Skills are sharpened by through a thorough examination and use of the drawing capabilities of Adobe Illustrator, which will aid in the creation of packaging projects.

GDSN 221 PUBLISHING & PRE-PRESS
Credits: 3
Term: (S)
Prerequisite: GDSN 217

This course provides a technical background to the Designer. The course covers material related to the actual production of design materials that are often overlooked during education and usually learned by experience. Press-checks, color specifications and proofing, pre-press art, file preparation, paper selections, and characteristics will all be addressed. Field trips will be included.

GDSN 222 CAPSTONE PORTFOLIO/INTERNSHIP
Credits: 3
Term: (S)
Prerequisite: GDSN 217

A senior-level course dealing with the dynamics involved in the preparation of a highly professional and competitive portfolio for interviewing purposes. Discussion and analysis of student work under consideration for portfolio inclusion is emphasized. Interviewing techniques include preparation of an appropriate resume, personal letterhead, appropriate methods used for contacting potential employers, personal dress, and attitudes relating to the interview presentation process.

Course Descriptions - Geology (GEO)

GEO 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

GEO 101 INTRODUCTION TO PHYSICAL GEOLOGY/LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (F,S)

This course is an introduction to geologic principles, with an emphasis upon geologic processes (plate tectonics, mountain building, and weathering); rock types (igneous, sedimentary, and metamorphic); and geologic hazards (volcanoes and earthquakes). Some time will be spent discussing geologic time; water and mineral resources; landforms; and glaciers. The laboratory portion of this course will include mineral and rock identification; topographic map reading; basic interpretation of geologic maps; and other activities dealing with topics covered in lecture. In order to have the greatest success in this course, it is highly recommended that students possess strong algebra skills.

GEO 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Health & Human Development (HHD)

HHD 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

HHD 106 DRUG & HEALTH ISSUES FOR EDUCATORS
Credits: 3
Terms: (F, S, SU)

This course is a survey of drug education and health concerns for educators of school-aged children, including topics required by Montana's Board of Public Education for health-related teacher
education.

HHD 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Great Falls Higher Education Center

The campus of Montana State University-Great Falls College of Technology serves as the site for the Montana University System Higher Education Center in Great Falls. The Higher Education Center coordinates courses and programs to be delivered in Great Falls by Montana's four-year campuses. Degree programs and courses offered through the Higher Education Center are primarily designed for area residents who are interested in enrolling in a graduate or four-year degree program not currently available in Great Falls.

Recent examples include an MBA offered by the University of Montana and Bachelor degrees offered by MSU–Bozeman and MSU–Northern. Further information about the Higher Education Center in Great Falls can be requested from Montana State University-Great Falls College of Technology Welcome Desk or by calling the College at 406-761-4300 or 1-800-446-2698 or online at hec.msugf.edu.

Higher Education Options

- Business
  - MSU – Bozeman
  - UM - Western
- Business Administration
  - MSU – Northern
- Computer Information Systems
  - MSU – Northern
- BSN Nursing
  - MSU Bozeman

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Articulation Agreements

MSU–Great Falls College of Technology has a number of articulation agreements with Montana public and private colleges and universities. These agreements make it possible for students to plan a program of study that begins with an associate degree at MSU–Great Falls College of Technology and leads to a four-year degree from a college or university. These agreements are designed to maximize the number of credits students will be able to transfer and to minimize students' time to degree. Areas of concern such as admissions, financial aid, course requirements, and contact information are clearly discussed.

Articulation agreements are made with specific programs at the four-year colleges and universities. Each agreement specifies how coursework in the associate degree program applies to the baccalaureate degree program at the four-year college or university. Each agreement outlines the appropriate and recommended courses to complete at MSU–Great Falls College of Technology and also specify courses that must be taken at the four-year college or university to complete the program. Any deviation from the articulation agreement will nullify the guarantee they provide.

Students interested in attending MSU–Great Falls College of Technology and utilizing an articulation agreement listed in the catalog are encouraged to indicate their interest in one of the articulation agreements to their First Semester Advising Team or Academic Advisor prior to or during their first term in attendance.

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Course Descriptions - History (HSTA & HSTR)

HSTA 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

HSTA 101 AMERICAN HISTORY I
Credits: 3
Term: (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.

HSTA 102 AMERICAN HISTORY II
Credits: 3
Term: (S)

This course is a survey of American history since the Civil War. The focus of the course will be on why events happened and what meaning they had for today's United States. The role of individuals and groups will be as important as the functioning of the more depersonalized economic and political forces of history. Themes of urbanization, industrialization and ethnicity will be emphasized. This course will stress social history as well as traditional political history.

HSTA 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

HSTA 235 CIVIL WAR AND RECONSTRUCTION
Credits: 3
Term: (S based on sufficient demand)

This course analyzes the causes of the Civil War, traces the military and civilian events of the war itself and considers the war's aftermath as embodied by Reconstruction, the incorporation of the American west and social climate of the Gilded Age.

HSTA 255 MONTANA HISTORY
Credits: 3
Terms: (F, S, SU)

This course is a study of the major political, social, cultural and economic developments that have contributed to the formation of Montana and to Montana's place within the region, the nation, and the world, from prehistoric times to the present.

HSTR 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

HSTR 101 WESTERN CIVILIZATION I
Credits: 3
Term: (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.

HSTR 102 WESTERN CIVILIZATION II
Credits: 3
Term: (S)

This course examines the major political, economic, and cultural developments of western civilization from the 17th century to the present.

HSTR 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Humanities (HUM)

HUM 094 PCE TOPIC
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HUM 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

HUM 242 GENDER AND EQUALITY
Credits: 3
Terms: (S, SU based on sufficient demand)

The human cultural role of gender is examined in relation to historical perspectives, business, social and familial organizations, world views, technology, and perception of self.

HUM 244 AMERICAN CULTURAL VALUES
Credits: 3
Term: (F)

This course surveys change and continuity in American cultural traditions, values, and beliefs from the perspectives of familial, social, and economic organizations. Explores how values and beliefs have been shaped and modified in America's rise as a world power in the context of shifting demographics, class relations, and world economies.

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Course Descriptions - Information Technology Systems (ITS)

ITS 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

ITS 125 FUNDAMENTALS OF VOICE AND DATA CABLING
Credits: 3
Term: (F)

Fundamentals of Voice and Data Cabling is a lecture and hands on course which focuses on industry standards and techniques for the design and implementation of structured cabling systems. Students will demonstrate competency in the installation and termination of both copper and fiber optic cabling including the proper use of tools and test equipment. Course assessments are used to show the student's understanding of the course content. This course is designed around the hybrid learning model. All lab experiences will be on campus.

ITS 150 CCNA 1: EXPLORATION
Credits: 3
Term: (F)
Pre- or Co-requisites: CAPP 120 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. This course utilizes the hybrid model for student learning.

ITS 152 CCNA 2: EXPLORATION
Credits: 3
Term: (F)
Pre- or Co-requisite: ITS 150

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, and TCP/IP. Students will develop skills on how to configure a router, manage Cisco IOS Software, and configure routing protocols. This class includes a number of hands-on activities using state-of-the-art routing equipment and Packet Tracer software. Students will also have access to the school's Online NetLab in order to complete lab assignments. This is a hybrid course.

ITS 194 PCE TOPIC

Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

ITS 210 NETWORK OPERATING SYSTEMS - DESKTOP
Credits: 4
Term: (S)
Prerequisite: CAPP 120

This course examines the role of operating system software and various user interfaces. The primary focus will be on using a command line interface for file management tasks as well as creating and troubleshooting batch files. File management, troubleshooting, application, Internet and administrative functions in a graphical interface will also be examined. This course maps to the MCSE/MCSA Exam 70-270 certification.

ITS 215 NETWORK OPERATING SYSTEMS: DIRECTORY/INFRASTRUCTURE
Credits: 4
Term: (F)
Pre or Co-requisites: CAPP 120, ITS 210

This course provides students with the knowledge and skills that are required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft Windows Server 2003 environment. This course will help the student prepare for the following Microsoft Certified Professional exam: 70-290: Managing and Maintaining a Microsoft Windows Servers 2003 Environment. This course will help the student prepare for two of the Microsoft Certified Professional exams.

ITS 217 NETWORK OPERATING SYSTEMS - SERVER ADMIN/APPS
Credits: 4
Term: (S)
Pre- or Co-requisites: CAPP 120, ITS 210, ITS 215

This course provides students with the knowledge and skills to implement, manage, and maintain a Microsoft Windows Server 2003 network infrastructure. The course is intended for systems administrator and systems engineer candidates who are responsible for implementing, managing, and maintaining server networking technologies. These tasks include implementing routing; implementing, managing, and maintaining Dynamic Host Configurations Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access. This course will help the student prepare Microsoft Certified Professional exams.

ITS 218 NETWORK SECURITY
Credits: 3
Term: (Summer)
Prerequisites: ITS 252

CCNA Security aims to develop an in-depth understanding of network security principles as well as the tools and configurations available. The course covers the following concepts:

- Protocol sniffers/analyzers
- TCP/IP and common desktop utilities
- Cisco IOS® Software
- Cisco VPN client
- Packet Tracer
- Web-based resources

Various types of hands-on labs provide practical experience, including procedural and troubleshooting labs, skills integration challenges, and model building. The curriculum also includes Packet Tracer-based skills integration challenges that build throughout the course and lead to an "exam-like" culminating activity in the last chapter.

ITS 220 FUNDAMENTALS OF WIRELESS LANS

Credits: 3
Term: (Based on sufficient demand)
Prerequisite: ITS 152 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.

ITS 224 INTRODUCTION TO LINUX
Credits: 4
Term: (Based on sufficient demand)
Prerequisite: CAPP 120, ITS 210

This course will help the student understand the many complex topics of Linux/Unix based systems and help students master Linux network administration. Students will use various learning tools, hands on projects and case projects to allow students to implement the practices they will be learning. This course will help prepare students to successfully complete the CompTIA Linus + exam.

ITS 250 CCNA 3: EXPLORATION
Credits: 3
Term: (S)
Prerequisite: CIT 126

This is a course in LAN based switching and wireless. Students will perform and verify initial switch configuration tasks including remote access management. Configure, verify, and troubleshoot VLANs, interVLAN routing, VTP, trunking on Cisco switches, and RSTP operation, and manage IOS configuration files. Students will identify the basic parameters to configure a wireless network and common implementation issues. This course utilizes a hybrid delivery model.

ITS 252 CCNA 4: EXPLORATION
Credits: 3
Term: (S)
Prerequisite: ITS 150, ITS 152, and ITS 250

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 configuration and implementation issues of Wide Area Networks (WANs). Students will learn about the impact of applications (Voice Over IP and Video Over IP) on a network. They will configure, verify, and troubleshoot DHCP and DNS operation on a router along with verifying, monitoring, and troubleshooting ACLs in a network environment. Students will configure and verify a basic WAN serial connection, a PPP connection between Cisco routers, and Frame Relay including configuring and verifying a PPP connection between Cisco routers, and Frame Relay on Cisco routers. This course utilizes a hybrid delivery model.

ITS 255 IP TELEPHONY
Credits: 3
Term: (Based on sufficient demand)
Prerequisite: ITS 252 or instructor approval

IP Telephony is an introductory course into the technology and equipment used to provide telephone services by using LAN and WAN based technologies. Students in this highly hands-on course will develop voice over IP (VoIP) networks using the application software, protocols and equipment used in implementing IP telephony in both small and large businesses.

ITS 260 CCNP 1: ADVANCED ROUTING
Credits: 4
Term: (F)
Prerequisites: ITS 252, CCNA TechPrep or CCNA certification

Advanced Routing is the first of four courses leading to the Cisco Certified Network

Professional (CCNP) certification. Advanced Routing is a lecture and hands-on course which teaches students how to design, configure, maintain, and scale routed networks. Students learn to use VLSMs, private addressing, and NAT to enable more efficient use of IP addresses. This course teaches students how to implement routing protocols such as RIP v2, EIGRP, OSPF, IS-IS, and BGP. In addition, this course details the important techniques used for route filtering and route redistribution. After the completion of this class, students are encouraged to take the CCNP Routing (BSCI) certification exam which is one of the certification exams leading to the CCNP certification.

ITS 264 CCNP 3: BUILDING MULTILAYER SWITCHED NETWORKS
Credits: 4
Term: (S)
Prerequisite: ITS 252, CCNA TechPrep or CCNA certification

Multilayer Switching is the third of four courses leading to the Cisco Certified Network Professional (CCNP) certification. Multilayer Switching is a lecture and hands-on course which introduces students about the deployment of the state-of-the-art campus LANs. This course focuses on the selection and implementation of the appropriate Cisco IOS services to build reliable scalable multilayer-switched LANs. Students will develop skills with VLANs, VTP, STP, inter-VLAN routing, redundancy, Cisco AVVID, QOS issues, campus LAN security, and transparent LAN services. After the completion of this class, students are encouraged to take the CCNP Switching certification exam (BCMSN) which is one of the certification exams leading to the CCNP certification.

ITS 280 COMPUTER REPAIR AND MAINTENANCE
Credits: 4
Term: (S)
Pre or Co-requisite: CAPP 120 or instructor approval

The primary purpose of this course is to prepare students to troubleshoot and repair microcomputer systems. This goal is achieved through a three-part effort: (1) theory presentation with regular assessment; (2) hands-on operation and exploration in lab experiments; and (3) troubleshooting applications in the lab. Hands-on training includes servicing microcomputers, identification, installation, and configuration of microprocessors, memory, system boards, power supplies, and floppy and disk drives. The emphasis of this course is both the hardware and operating systems for the CompTia A+ Essentials and IT Technician Certification tests.

ITS 291 CURRENT TOPICS
Credits: Variable
Term: (Based on sufficient demand)
Prerequisites: ITS 150, ITS 215, ITS 217 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.

ITS 298 Internship/Cooperative Education
Credits: 3
Term: (S)
Prerequisites: ITS 210, ITS 280, COMM 135 or instructor approval

This course provides students with experience in training and supporting end users, techniques for developing and delivering training modules, and strategies for providing on-going technical support. Emphasis is on problem solving, such as debugging, troubleshooting and interaction with users. An internship in the second half of the semester will give students firsthand experience with typical problems in the field.

Course Descriptions - Interior Design (DE)

DE 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

DE 161 INTRODUCTION TO DESIGN
Credits: 3
Terms: (F, S)

This course introduces design as it relates to interior design, architecture and related professions, through the study of the elements and principles of design and the ways in which humans interact with designed environments and elements.

DE 162 INTERIOR DESIGN GRAPHICS
Credits: 3
Term: (F)

Interior Design Graphics 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 detail drawings.

DE 163 PRESENTATION DRAWING
Credits: 3
Term: (S)
Prerequisite: DE 162 or equivalent

This course presents the elements of two- and three-dimensional design as related to interior representational drawings. Emphasis is on one- and two-point perspective drawings. Addition of color to drawings by use of marker and colored pencil is introduced.

DE 164 HISTORIC INTERIORS
(GF: Online; BZ: on campus)
Credits: 3
Term: (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

(GF: Online; BZ: on campus)
Credits: 3
Term: (S)

This course is a continuation of the study of the development of the interior environment from the 19th century to the present. The difference in the basic philosophy between 19th and 21st century
design is emphasized.

DE 166 TEXTILES AND INTERIOR FINISHES
Credits: 3
Term: (F)

This course includes the study of textiles and interior finishes used by interior designers. Students will gain familiarity with a wide range of textile products used in both residential and commercial interiors
including fiber content and yarn type, application and labeling, performance and maintenance. Students will also study the range and application of wall, ceiling and floor finish materials commonly used in interior design.

DE 168 SPACE PLANNING
Credits: 3
Term: (S)

This course explores the physical and psychological concepts pertaining to interior spaces. Students work with commercial design programs, schematic planning tools, commercial furniture, and
universal design concepts to create functional space plans that meet program criteria. Students will explore space planning in relationship to plumbing and mechanical systems and apply NKBA kitchen and bath space planning guidelines. The basic space planning skills and terminology learned are applicable to the NCIDQ exam.

DE 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

DE 261 FIELD STUDY
Credits: 3-5
Term: (SU)

This course is a variable credit class which gives the student 90 or 160 hours of experience in the daily operation of an interior design firm or a related business. It provides monitored experience in dealing with clients, customers and other business persons. The student will encounter opportunities to utilize skills and knowledge acquired in previous interior design courses. The discussion and reporting component of this class will be managed online. Students will be expected to give a brief presentation describing their experience when they return to school fall semester.

DE 262 STUDIO I
Credits: 4
Term:`(F)
Prerequisite: Completion of all 100-level technical courses

This course is a laboratory experience with real-life & hypothetical design projects. The focus of Studio I is primarily residential. Students will develop 2 or 3 complete presentations including but not limited to floor plans, interior elevations, interior perspectives, color board, room finish schedule, and a budget. Students will make oral

presentations using the presentation boards to illustrate their design solutions.

DE 263 STUDIO II
Credits: 4
Term: (S)
Prerequisite: Completion of all 100-level DE courses, DE 264 and DE 267/DE 273

Studio II is an advanced laboratory class which focuses on commercial design projects, some for actual clients. Advanced space planning, utilization of appropriate codes and specification writing will be covered. Students will develop 2-3 complete presentations including but not limited to floor plans, interior elevations, interior perspectives, color boards, and specification schedules. Students will make oral presentations using the presentation boards and CAD drawings to illustrate their design solutions.

DE 264 LIGHT, COLOR, AND LIGHTING SYSTEMS
Credits: 3
Term: (S)
Prerequisite: DE 161, DE 162

This course is a continuation of previous experience in color and lighting systems. Students will explore color theory, human response to color, and the properties of light and color. Students will also gain knowledge in lighting systems and specification of lamps and fixtures. The student will learn practical methods for applying these elements of design and demonstrate competency in color usage and lighting systems by designing projects including reflected ceiling plans, lighting and color specification.

DE 265 PROFESSIONAL PRACTICES
Credits: 3
Term: (S)
Prerequisite: Completion of all 100-level technical courses, DE 262

This course is an introduction to business principles and practices related to the interior design profession. Topics include business procedures, methods of charging, and steps involved in business formation. Use of contracts and specifications to achieve desired objectives is covered, as is marketing of professional services and promotion of the firm. A portfolio, resume and cover letter will be completed during this class.

DE 270 KITCHEN AND BATH I
Credits: 3
Term: (F)
Prerequisite: Completion of all 100-level technical courses.

Using the National Kitchen and Bath Association guidelines, students will learn the fundamentals of kitchen and bath design, using NKBA’s drawing and presentation standards. Analysis of client needs, specifying products, creating design solutions, residential plumbing and mechanical systems, project drawing and documentation will also be covered.

DE 271 KITCHEN AND BATH II
Credits: 3
Term: (S)
Prerequisite: DE 270

This studio course is a continuation of Kitchen and Bath I, with a special emphasis on baths. There will be further exploration into products, and more advanced design solutions.

DE 273 CAD FOR INTERIOR DESIGN
Credits: 4
Term: (S)

The interior design student will learn basic commands in AutoCAD, and then apply these

applications to the creation of residential and commercial construction drawings, furniture plans and 3D rendering using AutoCAD. Topics covered include drawing set-up, creation, 2D and 3D color rendering, and plotting.

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Course Descriptions - Literature (LIT)

LIT 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

LIT 110 INTRO TO LITERATURE
Credits: 3
Terms: (F,S)

This course provides the student an opportunity to study the three major literary forms – fiction, poetry, and drama including examples of works from several time periods. Selections will include works by and about minorities and women.

LIT 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

LIT 231 ANCIENT TO RENAISSANCE WORLD LITERATURE
Credits: 3
Term: (Based on Sufficient Demand)
Prerequisite: WRIT 101 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.

LIT 232 MODERN WORLD LITERATURE
Credits: 3
Term: (Based on Sufficient Demand)
Prerequisite: WRIT 101 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.

LIT 237 INTRODUCTION TO NATURE LITERATURE
Credits: 3
Term: (Based on Sufficient Demand)

This course will survey nature literature, covering key writers and ideas of this distinctive literary form. Writers of both prose and poetry who explore the natural world and create awareness of our place within it will be featured. The concluding focus on Montana nature writers will provide a local and personal link to the genre. Student projects will expand coverage to include particular writers not covered in class readings.

LIT 289 INTRO TO NATIVE AMERICAN LITERATURE
Credits: 3
Term: (S)

This course will explore Native American Literature, especially the poetry, novels and fiction written in the late nineteenth and twentieth centuries. Myths, legends, and songs from the oral tradition will be examined where relevant. Students will also learn the rudiments of a literary vocabulary.

LIT 291 SPECIAL TOPICS - LITERATURE
Credits: 3
Term: (F)

This course provides the student an opportunity to study major literary forms including fiction, poetry, memoir, creative non-fiction, and drama ranging from a variety of literary movements and time periods. Selections may include works focused on a specific author, genre, theme, country, or historical period, e.g. science fiction, Irish literature, Western literature, short fiction, etc.

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Course Descriptions - Mathematics (M)

M 065 PRE-ALGEBRA
Credits: 4
Term: (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.

M 090 INTRODUCTORY ALGEBRA
Credits: 4
Term: (F,S, SU)
Prerequisite: Qualifying placement assessment score within the past 3 years or instructor approval, M 065

Introductory Algebra initiates development in students' ability toorganize thought processes and systematically solve problems whilepreparing students for studies in other courses. Course emphasis includes manipulation of variables, exponential applications, introduction to and factoring of polynomials, solving equations, systems of equations, and radicals. This course is intended for students who have not studied algebra but have a firm background in basic mathematics or who wish it as a review.

M 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

M 095 INTERMEDIATE ALGEBRA
Credits: 4
Terms: (F,S)
Prerequisite: M 090 or qualifying placement assessment score within the past 3 years

This course offers a review of elementary algebra with further emphasis on systems of equations, determinants, systems of inequalities, rational expressions, radical expressions, complex numbers, quadratic equations, and exponential and logarithmic functions.

M 096 SURVEY OF ALGEBRA
THIS CLASS ONLY OFFERED AT THE COT IN BOZEMAN
Credits: 4
Terms: (F,S, SU)
Prerequisite: Qualifying placement assessment score within the past 3 years or instructor approval, M 065

Introductory Algebra initiates development in students' ability to organize thought processes and systematically solve problems while preparing students for studies in other courses.

Course emphasis includes manipulation of variables, exponential applications, introduction to and factoring of polynomials, solving equations, systems of equations, and radicals. This course is intended for students who have not studied algebra but have a firm background in basic mathematics or who wish it as a review.

M 108 BUSINESS MATHEMATICS
Credits: 4
Terms: (F,S,SU)
Prerequisite: Qualifying admission assessment score within the past 3 years or consent of faculty, M 065 or M 090

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.

M 111 TECHNICAL MATHEMATICS
Credits: 3
Terms: (F,S)

This course presents basic mathematical topics as they are applied in a trades program. Topics covered include: use of measuring tools, measurement systems, dimensional arithmetic, percent, proportion, applied geometry, basic trigonometry. NOTE: This course is intended for specific programs and does NOT provide sufficient Pre-Algebra material to serve as a prerequisite for students wanting to take additional mathematics.

M 116 MATH FOR HEALTH CAREERS
Credits: 3
Terms: (F,S)
Prerequisite: M 090 with a grade of "B-" or higher, M 095 with a grade of "C-" or higher, or qualifying placement assessment score within the past 3 years

This course prepares health science students for the mathematics required in their profession. Topics investigated include: inductive reasoning; logic; mathematical number systems; linear, quadratic, exponential, and logarithmic functions; graphing; probability; statistics; English, Apothecary and Metric systems and conversions; dosage calculations; and dimensional analysis. Utilizing these areas, the course also provides students with clinical applications.

M 121 COLLEGE ALGEBRA
Credits: 3
Term: (S)
Prerequisite: M 095 with a "C-" or higher or qualifying placement assessment score within the past 3 years.

This course presents concepts, principles, and methods of college-level algebra. Topics include linear, polynomial, rational, radical, exponential, and logarithmic functions and their graphs, real and complex numbers, basic matrix theory, and conic sections.

M 130 MATH FOR ELEMENTARY TEACHERS I
Credits: 3
Terms: (F, S based on Sufficent Demand)
Prerequisite: M 090 or qualifying placement assessment score within the past 3 years

This course is an introduction to problem solving, sets, functions, logic, numerations systems as a mathematical structure, introductory number theory, rational and irrational numbers and probability for prospective elementary school teachers.

M 131 MATH FOR ELEMENTARY TEACHERS II
Credits: 3

Term: (S)
Prerequisite: M 130

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.

M 145 MATH FOR LIBERAL ARTS
Credits: 3
Term: (F,S)
Prerequisite: M 090 with a grade of "B-" or higher, M 095 with a grade of "C-" or higher, or qualifying placement assessment score within the past 3 years

This course exposes students to topics in applied and pure mathematics directly connected to modern society. Topics include: Polya's techniques for problem solving, number theory, logic, algebraic models, optimization, linear programming, set theory, probability and statistics.

M 152 PRECALCULUS ALGEBRA
Credits: 4
Terms: (F,S)
Prerequisite: M 095 with a grade of "B-" or higher, M 121 with a grade of "C-" or higher, or qualifying placement assessment score within the past 3 years.

An extended study of algebra preparing students for further work in mathematics in particular, Calculus. Course topics include the fundamental properties of real and complex numbers, functions
(polynomial, rational, radical, exponential and logarithmic), conics, matrices, determinants, sequences, series and the binomial theorem.

M 153 PRECALCULUS TRIGONOMETRY
Credits: 3
Term: (S)
Prerequisite: M 095 with a grade of "B-" or higher, M 121 with a grade of "C-" or higher, or qualifying placement assessment score within the past 3 years.

An extensive look at trigonometric functions and identities, Law of Sines and Cosines, polar coordinates, inverse functions, vectors, and parametric equations is the basis of this course.

M 171 CALCULUS I
Credits: 4
Term: (F)
Prerequisites: M 152 and M 153 or qualifying placement assessment score within the past 3 years

Functions, elementary transcendental functions, limits and continuity, differentiation, applications of the derivative, and curve sketching studied.

M 172 CALCULUS II
Credits: 4
Term: (S)
Prerequisite: M 171

Integration theory, methods of integration, applications of the integral, Taylor's theorem, infinite sequences, and series are studied.

M 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification

requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Manufacturing (MFGT)

MFGT 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

MFGT 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

MFGT 205 MANUFACTURING PROCESSES AND MATERIALS
Credits 3
Term: (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.

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Course Descriptions - Microbiology (BIOM)

BIOM 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

BIOM 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

BIOM 250 MICROBIOLOGY FOR HEALTH SCIENCES/LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (F,S)
Prerequisites: CHMY 121 or BIO 213

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.

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Course Descriptions - Music (MUSI)

MUSI 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

MUSI 101 ENJOYMENT OF MUSIC
Credits: 3
Term: (F)

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.

MUSI 105 MUSIC THEORY I
Credits: 3
Term: (F)

Designed for the student with little or no musical background, this course introduces the fundamental elements of music reading and notation. It includes note and rhythmic reading, scales, intervals, and chords.

MUSI 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

MUSI 203 AMERICAN POPULAR MUSIC
Credits: 3
Terms: (S, SU based on sufficient demand)

This course will survey musical idioms, styles and trends developed in the United States from 1492 to the present. Included are folk, sacred, country and western, blues, pop, rock and roll, jazz, and fine art music.

MUSI 207 WORLD MUSIC
Credits: 3

Terms: (F, S)

World Music introduces the music of varied cultures of the world by presenting the music within its historical and societal contexts. The course includes topics and musical surveys from Asia, Africa, the Americas and Europe.

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Course Descriptions - Native American Studies (NAS)

NAS 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

NAS 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

NAS 201 MONTANA'S AMERICAN INDIANS
Credits: 3
Terms: (F, S, SU)

This course focuses on the interactions of Montana's American Indians in socioeconomic structures based on historical and current perspectives including cultural world views, religion, reservations, treaties, vested rights, sovereignty, contemporary tribal governments, and socioeconomic problems.

NAS 215 NATIVE AMERICAN RELIGIOUS TRADITIONS
Credits: 3
Term: (F based on sufficient demand)

This course will examine, explore, and describe selected Native American Religious systems focusing on origins, world views, religious beliefs, traditions and ceremonies, sacred songs and dance, and the way they have been affected by western civilization. A major focus will be on the Northern Plains People.

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Course Descriptions - Nursing (NRSG)

NRSG 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

NRSG 100 INTRODUCTION TO NURSING
Credits: 1 (15 Hours Lecture)
Terms: (F,S,SU)

The purpose of this course is to initiate the student to the roles/functions/expectations of the nurse. The course will explore nursing history, current views of nursing, different types of nursing occupations, and educational requirements. The course will expose the students to issues surrounding the profession of nursing.

NRSG 130 FUNDAMENTALS OF NURSING
Credits: 7 (60 Hours Lecture / 90 Hours Lab)
Term: (F)

This course introduces students to the clinical skills essential for the nursing role. Also includes complex concepts and behaviors of nursing roles within the context of the nursing process, holistic care and health care. The course emphasizes the theoretical and practical concepts of nursing skills required to meet the needs of patients in a variety of clinical settings. Students will be given the opportunity, in a lab setting, to practice these nursing skills.

NRSG 135 NURSING PHARMACOLOGY
Credits: 3 (45 Hours Lecture)
Term: (F)

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. The course reflects general principles, theories, and facts about drugs and their administration. Principles of action, uses, side effects, and patient education are taught to facilitate the student's learning in the clinical setting. Specific drug information is discussed in relation to assessment, nursing diagnosis, patient monitoring, interventions, patient education and evaluation of safe and effective drug therapy. Emphasis is placed on utilizing the nursing process related to pharmacology and the nurse's ability to think critically.

NRSG 138 GERONTOLOGY FOR NURSING
Credits: 2 (15 Hours Lecture / 45 Hours Clinical)
Term: (F)

This course will focus on the nursing management of the older adult. Theories of gerontology and aging will be emphasized. The course will examine the principles of gerontology, challenges of aging, nutrition, pharmacology, pain, elder mistreatment, dying,

and physiological basis of practice. The course will emphasize a holistic approach necessary to provide care for the older adult in diverse care settings. Ethical issues related to the care of the older adult will be explored. In the clinical component of this course, students will be able to safely deliver essential basic skills and show knowledge and concern to patients in the geriatric setting

NRSG 140 CORE CONCEPTS OF ADULT NURSING
Credits: 7 (60 Hours Lecture / 135 Hours Clinical)
Term: (S)

This course prepares the student to care for patients experiencing common, well-defined health variations in settings where stable patients are anticipated. Students are introduced to standardized nursing procedures and customary nursing and collaborative therapeutic modalities. The course guides the student through the nursing process when planning nursing care for the common diseases of the following systems: urinary, endocrine, Integumentary, neurological, sensory, gastrointestinal, respiratory, cardiovascular, blood disorders, cancer, sensory, and musculoskeletal. The clinical component provides advancement from in-depth to complex nursing skills, knowledge, and attitudes necessary to care for the acutely ill patient.

NRSG 142 CORE CONCEPTS OF MATERNAL/CHILD
Credits: 3 (30 Hours Lecture / 45 Hours Clinical)
Term: (S)

Emphasizing caring, communication, professionalism, and critical thinking, the course provides information about fetal development, prenatal and postnatal care of the mother and newborn. Role of the nurse in meeting the needs of the family is emphasized. Clinical application of caring for the mother and newborn will allow the student to demonstrate acquired knowledge. The course also includes growth and development patterns as well as care of the well and sick child.

NRSG 144 CORE CONCEPTS OF MENTAL HEALTH
Credits: 2 (30 Hours Lecture)
Term: (S)

This course will explore physiological, psychological, sociocultural, spiritual and environmental factors, associated with Mental Health/Illness. Focus will be placed on psychotherapeutic management in the continuum of care, milieu management and special populations with emphasis on individuals, families and communities.

NRSG 148 LEADERSHIP ISSUES
Credits: 2 (15 Hours Lecture / 45 Hours Clinical)
Term: (SU)

This capstone course provides the Practical Nursing student information regarding the current status of practical nursing. This course assists the nursing student to bridge the role between student and employee. Leadership/management skills, continuing educational needs, licensure requirements, job applications, advanced educational programs and charge nurse responsibilities are included. Students will take the National League of Nursing (NLN) test and receive an application for the State Board of Nursing Examination. There is a forty-five hour clinical to provide the student the experience of organizing the care for a small group of patients (5) in an extended care setting as a patient manager.

NRSG 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

Course Descriptions - Office Technology (OO)

OO 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

OO 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

OO 220 PREPARING RESUMES
Credits: 1
Term: (S)
Prerequisite: Recommended course be taken during students final semester of attendance

Students will study the components of a "winning" resume and go through the steps in preparing a resume. They will identify critical differences among traditional, scannable, and electronic resumes. Personal strengths will be identified and focused to improve marketability in targeted career areas.

OO 221 INTERVIEWING FOR JOBS
Credits: 1
Term: (S)
Prerequisite: Recommended course be taken during students final semester of attendance

This course will help the student master the art of interviews, develop strategies to market themselves, acquire successful interview techniques, navigate interview questions and answers, and utilize good follow-up moves.

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Course Descriptions - Philosophy (PHL)

PHL 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

PHL 101 INTRODUCTION TO PHILOSOPHY
Credits: 3
Terms: (F, S, SU based on sufficient demand)

An introduction to philosophy through examination of the thought of selected great philosophers or of traditional positions on classical philosophical problems.

PHL 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

PHL 110 INTRODUCTION TO ETHICS
Credits: 3
Terms: (F, S, SU based on sufficient demand)

This course introduces ethical theory through an examination of the major schools and the fundamentals of decision-making. It examines general moral theory and applies this theory to moral problems of historical and current interest.

PHL 221 INTRODUCTION TO PHILOSOPHY & BIOMEDICAL ETHICS
Credits: 3
Terms: (F, 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.

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Course Descriptions - Physical Science (PHYS)

PHYS 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

PHYS 110 SURVEY OF NATURAL SCIENCES
Credits: 3 (3 lecture)
Terms: (F, S)

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.

PHYS 130 FUNDAMENTALS OF PHYSICAL SCIENCE W/ LAB
Credits: 4 (3 lecture, 1 lab)
Terms: (F, S)

This course is an introduction to the fundamental behavior of energy and matter. It is divided into two sections: physics and chemistry. Topics discussed in the physics portion include: scientific measurement; motion; work and energy; heat and temperature; and waves (including sound and light). Topics discussed in the chemistry portion include: atomic structure; the periodic table of elements; chemical bonding and nomenclature; chemical formulas and equations; and solutions. Several lab experiments relating to some of these topics will be performed. No prior work in
physics or chemistry is assumed for this course, although in order to have the greatest success in this course, it is highly recommended that students possess strong algebra skills.

PHYS 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Physical Therapist Assistant (PTA)

PTA 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

PTA 101 PHYSICAL THERAPIST ASSISTING I / LAB
Credits: 5 (3 Lecture, 2 Lab - 45 Lecture Hours/60 Lab Hours)
Term: (F)
Prerequisites: Acceptance Into PTA Prgoram
Co requisites: PTA 205, 206, 210 and 218

This is the first of two sequential skills and procedures courses in the PTA program. The following topics are covered: basic principles and procedures of physical therapy; basic care skills and application techniques; use of assistive devices; architectural and environment barriers; introduction to range of motion (ROM); introduction to pain theories, conditions, and assessment; and physiological principles, indications/contraindications, and application of physical agents
discussed in lecture.

PTA 105 INTRODUCTION TO PHYSICAL THERAPIST ASSISTING
Credits: 3 (45 Lecture Hours)
Terms: (F,S,SU)

This course is designed to give the student an overview of the Physical Therapy profession by providing a historical perspective, as well as, an understanding of its philosophy in relation to the professional organization; an overview of the roles of the Physical Therapy staff members in the clinical setting, as well as, members of the health care team in various delivery systems; development of interpersonal communication skills relating to the profession; and an understanding of the commitment of the graduate to continued personal and professional development. This course provides an overview of ethical, legal, and psychosocial issues relating to the role of the PTA in health care delivery. It includes such topics as the implications of chronic illness; the aging process and death/dying; client's role in health management; financing of physical therapy; regulations governing PTAs; code of ethics; scope of PT and PTA practice; and the PTA's role in departmental administration.

PTA 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

PTA 201 PHYSICAL THERAPIST ASSISTING II / LAB
Credits: 5 (3 Lecture, 2 Lab - 45 Lecture Hours/60 Lab Hours)
Term: (S)
Prerequisites: PTA 101, PTA 205, PTA 206 and PTA 218 all with a grade of "76%" or higher and PTA 210 with a grade of "Pass"
Co requisites: PTA 213, 215, and 220

This is the second of the two sequential skills and procedures courses in the PTA program. The following topics are covered: theoretical principles and application of chest physical therapy, biofeedback, topical applications, electrotherapy, ultrasound; procedure and application of cervical and lumbar traction; gait analysis and training; prosthetic/orthotic application, theory and application of massage; measurements and principles of cardiopulmonary rehabilitation.

PTA 205 ANATOMY AND KINESIOLOGY FOR THE PTA
Credits: 6 (4 Lecture, 2 Lab - 45 Lecture Hours/60 Lab Hours)
Term: (F)
Prerequisites: Acceptance into PTA program
Co requisites: PTA 101, 206, 207, 210, and 218

This course is designed to provide the student with an understanding of: the human musculoskeletal system relative in the biomechanical elements of normal and abnormal human motion; osteology and arthrology in relation to muscle action and joint mechanics. The study and skills of goniometry and manual muscle testing will also be covered.

PTA 206 PATHOPHYSIOLOGY FOR THE PHYSICAL THERAPIST ASSISTANT
Credits: 3 Lecture Hours - 45 Lecture Hours
Term: (F)
Prerequisites: Acceptance into the PTA Program
Co requisites: PTA 101, 205, 207, and 210

This course introduces the student to the pathophysiology, etiology, clinical signs and symptoms, and management of selected pathological and injury-related disorders treated in physical therapy. Other pathologies discussed include: diabetes mellitus, immune system disorders, neoplasms, and disorders related to pregnancy. The course includes studentpresentations on disorders pertinent to physical therapy. The course also includes the pathology and treatment of vestibular disorders.

PTA 210 CLINICAL EXPERIENCE I
Credits: 3 (160 Clinical Hours - 4 weeks)
Term: (F)
Prerequisites: Acceptance into the PTA program
Co requisites: PTA 101, 205, 206, and 218

The purpose of this clinical affiliation is to provide the student with an opportunity to apply skills and techniques learned in PTA 101, 105, 205, 206 and 218 under the appropriate supervision of the clinical instructor. This course will include a four-week clinical rotation at an approved site.

PTA 213 NEUROREHABILITATION FOR THE PTA
Credits: 6 (4 Lecture Hour, 2 Lab - 60 Lecture Hours/60 Lab hours
Term: (S)
Prerequisites: PTA 101, PTA 205, PTA 206, and PTA 218 with a grade of "76%" or higher with a grade of "C-" or higher and PTA 210 with a grade of "Pass"
Co requisites: PTA 201, 215, and 220

This course is an introduction to neuroanatomy and neurophysiology in relationship to neurological pathologies of the brain and spinal cord commonly treated by physical therapy. Through this course the student is also introduced to neurological development: normal vs. abnormal - birth through adult; disease processes and outcomes; and neurophysiological routines used for treatment. Principles and treatment of specific disabilities are also presented.

PTA 215 INTRODUCTION TO ORTHOPEDICS
Credits: 4 (3 Lecture, 1 Lab - 45 Lecture Hours and 30 Lab Hours)
Term: (S)
Prerequisites: PTA 101, 205, 206, and 207 with a grade of "C-" or higher and PTA 218 with a grade of "76%" or higher and PTA 210 with a grade of "Pass"
Co requisites: PTA 201, 213, 220

This course introduces students to pediatric and adult musculoskeletal pathologies and management of orthopedic and surgical problems commonly seen by physical therapy. Course content will include:

1. Basic biomechanics and mechanisms of orthopedic injuries and diseases
2. Survey of surgical repair with emphasis on rehabilitation
3. Evaluation techniques and treatments used by physical therapists
4. Theoretical application of therapeutic exercise programs and equipment commonly used for treatment of various orthopedic conditions and surgical procedures, and
5. Orthopedic pediatric treatment routines.

PTA 218 THERAPEUTIC EXERCISE FOR THE PTA
Credits: 2 (30 Lecture Hours)
Term: (F)
Prerequisites: Acceptance into the PTA Program
Co requisites: PTA 101, 205, 206, and 210

This course introduces the physical therapist assistant student to topics such as exercise prescription tailored to the individual, general therapeutic exercises, aquatic therapy, relaxation techniques, and setting up a home exercise program. Current health practices and theory will be addressed in relation to nutrition/wellness within special populations emphasizing preventative practice.

PTA 220 CLINICAL EXPERIENCE II
Credits: 3 (160 Clinical Hours, 4 weeks in length)
Term: (S)
Prerequisites: PTA 101, 205, 206, 207 with a grade of "C-" or higher and PTA 218 with a grade of "76%" or higher and PTA 210 with a grade of "Pass"
Co requisite: PTA 201, 213, 215

The students will continue to build on their clinical experiences from PTA 210 previous coursework. This will consist of a four-week clinical rotation at an approved site.

PTA 225 SEMINAR AND PROJECT IN PHYSICAL THERAPIST ASSISTING
Credits: 3
Term: (SU)
Prerequisites: PTA 101, 201, 205, 206, 213, 215, 218 with a grade of "76%" or higher and PTA 210, 220 with a grade of "Pass"
Co requisite: PTA 230

This concentrated course is designed to integrate skills and techniques from previous clinical experiences and from the course work presented throughout the PTA program. It focuses on presentation of comprehensive treatment plans utilizing all treatment skills and techniques learned during the previous semesters. The students will be expected to provide written reports including complete patient information and treatment plans and then present this information in the form of a case study/project. Research and current issues are discussed and presented. Students will be required to relate sociological, physical, and psychological aspects of illness and injury to their projects. A cumulative exam of the PTA curriculum, as well, as preparation for the state's licensure exam is covered in this course. A cumulative practice exam of the PTA curriculum, as well, as preparation for the national and state's licensure exams are covered in this course. Students are required to develop and present on their program portfolios. Student questions and concerns are also addressed.

PTA 230 CLINICAL EXPERIENCE III
Credits: 5 (320 Clinical Hours, 8 weeks in length)

Term: (SU)
Prerequisites: PTA 101, 201, 205, 206, 213, 215, 218 with a grade of "76%" or higher and PTA 210, 220 with a grade of "Pass"
Co requisite: PTA 225

This is the third of three full-time affiliations/clinical experiences during which the student develops proficiency in physical therapy procedures, understanding of clinical responsibilities and supervisory relationships with a minimum competence necessary to graduate as an entry level physical therapist assistant and become an active participant of the health care team. This course will include an eight-week clinical rotation at an approved site.

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Course Descriptions - Political Science (PSCI)

PSCI 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

PSCI 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

PSCI 210 INTRODUCTION TO AMERICAN GOVERNMENT
Credits: 3
Terms: (F, S)

This course examines the major institutions of national government and politics. Special emphasis is placed on the Constitution and other political rules of the game as shapers of public consciousness and government policy.

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Course Descriptions - Psychology (PSYX)

PSYX 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

PSYX 100 INTRO TO PSYCHOLOGY
Credits: 3
Terms: (F,S,SU)

This course is an introduction to the nature and scope of the field of psychology as a scientific and human endeavor. Major topics include: historic development of the field; biological and developmental processes; consciousness and perceptions; learning, remembering, and thinking; motivation and emotion; personality and individuality; social behavior; normal stress and coping; and abnormal psychology and treatment methods.

PSYX 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

PSYX 230 DEVELOPMENT PSYCHOLOGY
Credits: 3
Terms: (F,S,SU)

This course presents the study of human development throughout the lifespan. Study will include: the three domains of development (physical, cognitive and psychosocial); major theories; the influence of genetics; and prenatal development. The overall framework of the course is
chronological dividing the lifespan into seven parts: infancy; early childhood; middle childhood; adolescence; early adulthood; middle adulthood; and late adulthood. This organization emphasizes the whole person and assists students to appreciate the ways in which the three domains of development continuously interact.

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Course Descriptions - Radiologic Technology (AHXR)

AHXR 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

AHXR 101 PATIENT CARE IN RADIOLOGY
Credits: 2
Term: (S)
Prerequisite: Successful completion of the first semester RAD Program

This course is designed to introduce the student to techniques and procedures utilized to provide care to the patient in the Radiology Department. It will provide instruction in the areas of infection control, vital signs, venipuncture, and patient communication. This instruction is necessary to meet some of the General Patient Care requirements of the American Registry of Radiologic Technologists. The course concludes with a study of interactions between radiation and the body atoms.

AHXR 105 INTRODUCTION TO RADIOLOGIC TECHNOLOGY
Credits: 2
Term: (F)
Prerequisite: Acceptance into RAD program

This course will introduce the student to the field of radiography and its various imaging modalities to prepare the student for what they will see and experience during their clinical rotations. It includes instruction in the areas of medical ethics and medico-legal aspects of radiographic imaging that will increase the awareness of the student to the legal responsibilities associated with radiographic imaging and an overview of pharmacology including contrast media, reactions to contrast media and electrical safety to aid the student in their clinical experience for those procedures that require the use of contrast media.

AHXR 130 RADIOGRAPHIC POSITIONING/PROCEDURES I
Credits: 2
Term: (F)
Prerequisite: Acceptance into RAD Program

In this course the student is introduced to the principles of radiographic positioning including the terminology involved, bone classifications, bone anatomy, bone pathology, and arthrology. Positioning, pathology, and radiographic procedures related to the abdomen and chest are also covered. Instruction will include lecture, audio/visual media and positioning demonstrations in a radiographic room.

AHXR 131 RADIOGRAPHIC POSITIONING/PROCEDURES II
Credits: 3
Term: (S)
Prerequisite: AHXR 130

This unit of instruction provides the student with the opportunity to learn the radiographic procedures associated with examinations of the upper extremity, lower extremity, and vertebral column. Modification of routine positioning to accommodate traumatized patients is also presented. Methods of instruction include lecture, audio/visual media, and positioning demonstrations in a radiographic room.

AHXR 132 ELEMENTS OF IMAGING I
Credits: 3
Term: (F)
Prerequisite: Acceptance into RAD Program

This course begins with a study of film and film processing procedures. It then takes the student through the analysis of a radiographic image from a quality standpoint and the various factors that influence the quality of the final radiographic image. Image evaluation and knowing how to correct poor images is essential in the performance of the radiologic technologist. Instruction methods will include lecture, audio/visual media, and the review of radiographic images to reinforce the information presented during the lectures.

AHXR 133 ELEMENTS OF IMAGING II
Credits: 3
Term: (S)
Prerequisite: AHXR 132

This course begins with basic principles of physics to prepare the student for instruction related to x-ray circuitry. As a technologist an understanding of x-ray circuitry helps to realize when machine failures occur and what can be done to reduce the likelihood of machine failure. Having a basic knowledge of x-ray circuitry can aid the technologist in describing machine problems to repair personnel so that repairs may be made more efficiently. Instruction methods will include lecture and audio/visual media.

AHXR 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

AHXR 195A RADIOGRAPHIC CLINICAL I
Credits: 7 (300 Clinical Hours)
Term: (F)
Prerequisite: Acceptance into RAD Program

This aspect of the curriculum will involve time spent at the clinical education sites assisting with the performance of radiographic examinations on patients. Students will be given clinical rotations at each clinical site and attendance is mandatory. Students will be required to demonstrate competency in the operation and manipulation of the various types of radiographic equipment found at each clinical site during this time. Students will begin to document competencies on radiographic procedures during this time as well to meet the clinical competency requirements of the ARRT and the COT program.

AHXR 195B RADIOGRAPHIC CLINICAL II
Credits: 8 (360 Clinical Hours)
Term: (S)
Prerequisite: AHXR 195

The student will continue assisting in the performance of radiographic examinations on patients at the clinical sites. Students are expected to continue to improve clinical skills and

to demonstrate competency in additional radiographic procedures involving the chest, abdomen including digestive and urinary systems, upper extremities, lower extremities, and vertebral column to meet the clinical competency requirements of the ARRT and the COT program. Students will be given clinical rotations at each clinical site and attendance is mandatory.

AHXR 225 RADIOBIOLOGY / RADIATION PROTECTION
Credits: 3
Term: (F)
Prerequisite: Acceptance into RAD Program

This course will introduce the student to the concepts of radiation, sources of radiation, and the production of x-rays that are used for imaging areas of the body. The effects of radiation exposure on living tissues and the risks to both the exposed individual and the individual's offspring are also included. Methods utilized to reduce exposures to patients and personnel are also covered. Instruction methods will include both lectures and audio/visual presentations.

AHXR 230 RADIOGRAPHIC POSITIONING/PROCEDURES III
Credits: 4
Term: (F)
Prerequisite: AHXR 131

This unit of instruction will provide the student with positioning and procedures involving the cerebral cranium, visceral cranium, urinary system, digestive system, biliary tract, and mammography. Methods of instruction include lecture, audio/visual media, and positioning demonstrations in a radiographic room.

AHXR 231 RADIOGRAPHIC POSITIONING/PROCEDURES IV
Credits: 2
Term: (S)
Prerequisite: AHXR 230

This course introduces the student to angiographic imaging and includes instruction on angiographic procedures and the equipment necessary to perform angiography. It will include common pathologic conditions that require angiographic studies and the radiographic appearance of these pathologic conditions. Several therapeutic procedures performed through angiographic methods are also included.

AHXR 233 ELEMENTS OF IMAGING III
Credits: 2
Term: (F)
Prerequisite: AHXR 133

This course will include instruction covering computer applications in radiology including computer terminology applicable to radiology systems, and an introduction to quality assurance testing that is performed within the radiology department to insure quality imaging can be provided. Instruction methods will include lecture and audio/visual media.

AHXR 270 RADIOGRAPHIC REGISTRY REVIEW
Credits: 2
Term: (S)

This course will begin the review process to prepare the student for the certification examination provided by the American Registry of Radiologic Technologists (A.R.R.T.) which is taken after graduation from the clinical portion of the program. It will involve review testing to identify those areas of the didactic curriculum in which the students have their greatest weaknesses followed by classroom discussion. This allows the review to be more focused to the needs of the students. Computerized testing is also utilized to prepare the student for the testing format utilized by the A.R.R.T.

AHXR 295A RADIOGRAPHIC CLINICAL III
Credits: 8 (360 Clinical Hours)
Term: (F)
Prerequisite: AHXR 298

This course is a continuation of RAD 240 and provides the student with the opportunity to improve clinical skills learned during their first year and to demonstrate clinical competency in more advanced radiographic procedures. In addition to previous clinical assignments, the student will be scheduled for clinical observations in areas of specialized imaging including CT, MRI, and ultrasonography. The student will be required to continue to demonstrate competency in new radiographic procedures to meet the clinical competency requirements of the ARRT and the COT program.

AHXR 295B RADIOGRAPHIC CLINICAL IV
Credits: 10 (480 Clinical Hours)
Term: (S)
Prerequisite: AHXR 295

This is the final clinical rotation period for the student. During this time the student is expected to finish the clinical competency requirements of the ARRT and COT program.

AHXR 298 RADIOGRAPHIC INTERNSHIP
Credits: 8 (320 Clinical Hours)
Term: (SU)
Prerequisite: AHXR 195

This course is to provide the student with the opportunity to practice in an internship setting. The internship will be for ten weeks at 40 hours per week. The student will be required to continue to demonstrate competency in new radiographic procedures to meet the clinical competency requirements of the ARRT and the COT program. Attendance is mandatory and will be monitored with the use of a time clock and time cards. Radiation monitoring devices must be worn at all times while in clinical education and possession of the device may be checked on site by the staff. During the session, the student will experience clinical rotations in areas of specialized imaging including CT, MRI, ultrasoundography, nuclear medicine, and angiography. A rotation in radiation therapy is also included.

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Course Descriptions - Respiratory Care (RC)

RC 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

RC 140 RESPIRATORY CARE CLINIC I
Credits: 3
Term: (S)
Prerequisite: Completion of 1st semester of RT program

Students will gain knowledge through supervised experiences in hospital patient care, techniques, and equipment. Emphasis is on patient contact, medical gases, hyperinflation, equipment, percussion, humidity and aerosol therapy, airway management, and secretion management. Safety and environmental awareness will be covered in all clinical courses.

RC 141 RESPIRATORY CARE CLINIC II
Credits: 4
Term: (SU)
Prerequisite: Completion of 2nd semester of RT program

Students will have supervised experiences in hospital patient care, techniques, and equipment. The previous clinical techniques will be expanded with emphasis on IPPB, artificial airway suctioning, chest physiotherapy, medication nebulization, EKGs, chest assessment, and continuous mechanical ventilation.

RC 150 RESPIRATORY CARE
Credits: 3
Term: (F)
Prerequisite: Acceptance into RT program

Respiratory Care introduces new respiratory therapist students to the field of respiratory care. Course content includes respiratory care organizations, physical principles in respiratory care, medical terminology, respiratory drugs, medical ethics, and patient communications.

RC 155 RESPIRATORY PHYSIOLOGY
Credits: 3
Term: (F)
Prerequisite: Acceptance into RT program

Respiratory Physiology covers anatomy and physiology of the cardio-pulmonary systems. Topics studied are blood, the heart, vessels, respiratory structure, the physics of gas pressure, ventilation, regulation of ventilation, O2 and CO2 transport, ventilation and

perfusion balance, acid-base balance, and interpretation of arterial blood gases.

RC 170 RESPIRATORY CARE TECHNIQUES & PROCEDURES I
Credits: 5
Term: (F)
Prerequisite: Acceptance into RT program

Knowledge and skills taught will provide students with the theories, principles, and laboratory experience in the areas of medical gas therapy and aerosol and humidification therapy in the use of hyperinflation devices and chest physical therapy. An introduction to infection control, body mechanics, gas analyzers, artificial airways, manual resuscitators, secretion removal, and safety and environmental awareness will be studied.

RC 171 RESPIRATORY CARE TECHNIQUES & PROCEDURES II
Credits: 5
Term: (S)
Prerequisite: Completion of the 1st semester of the RT program

Knowledge and skills taught will provide students with the theories, principles, and laboratory experience in the areas of mechanical ventilation. Ventilators including but not limited to: Nellcor Puritan Bennett 7200ae and 840, Siemens Servo 900C and 300a, Sensormedics 3100A High Freq. Oscillator, Repironics BiPaP Vision, and the Infrasonics Infant Star 500. Other areas such as arterial blood gas techniques, transcutaneous gas monitoring, hyperbaric oxygen therapy, mixed gas therapy, mechanical ventilator waveforms, troubleshooting, weaning and high frequency ventilation will also be investigated.

RC 180 VENTILATOR MANAGEMENT
Credits: 2
Term: (S)
Prerequisite: Completion of the 1st semster of the RT program

Ventilator Management prepares Respiratory Therapist students to care for the respiratory needs of adult patients in the intensive care setting. Content includes: relating physiologic measurements to patients' ventilation and oxygenation status, establishing the need for mechanical ventilation, selecting initial ventilator parameters and settings, assessing and modifying ventilator parameters and settings, monitoring mechanically ventilated patients, physiologic effects and complications of mechanical ventilation, weaning from ventilators.

RC 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

RC 240 RESPIRATORY CARE CLINIC III
Credits: 4
Term: (F)
Prerequisite: Completion of the 3rd semster of the RT program

Students will be supervised in in-hospital practice of advanced therapeutic and diagnostic respiratory care procedures including pulmonary function testing, arterial blood gases, intubation, continuing education, pulmonary rehabilitation, newborn and adult intensive care, and supervisory management. This course with RC 241 extend through two semesters.

RC 241 RESPIRATORY CARE CLINIC IV
Credits: 5

Term: (S)
Prerequisite: Completion of the 4th semster of the RT program

Students will be supervised in in-hospital practice of advanced therapeutic and diagnostic respiratory care procedures including pulmonary function testing, arterial blood gases, intubation, continuing education, pulmonary rehabilitation, newborn and adult intensive care, and supervisory management. This course with RC 240 extend through two semesters.

RC 245 RESPIRATORY CARE CLINICAL SEMINAR I
Credits: 1
Term: (F)
Prerequisite: Completion of the 3rd semster of the RT program
Co-requisite: RC 240

The purpose for this course is to provide students with an opportunity to share significant clinical experiences, to present clinical problems, to practice communication skills, and the presentation of student in-services. The student will learn to take the National Boards clinical simulation exams. Complete job seeking skills will be taught.

RC 246 RESPIRATORY CARE CLINICAL SEMINAR II
Credits: 1
Term: (S)
Prerequisite: Completion of the 4th semster of the RT program
Co-requisite: RC 241

The purpose for this course is to provide students with an opportunity to share significant clinical experiences, to present clinical problems, to practice communication skills, and the presentation of student in-services. The student will learn to take the National Boards clinical simulation exams. Complete job seeking skills will be taught.

RC 250 HEMODYNAMIC MONITORING
Credits: 4
Term: (F)
Prerequisite: Completion of the 3rd semester of the RT program

Hemodynamic Monitoring presents to Respiratory Therapist students the information about circulatory system necessary to work in adult intensive care settings. Course content includes: cardiac dysrhythmia identification, management of the circulatory system based of central venous, right atrial, pulmonary artery and wedge, intra-arterial pressure and cardiac output monitoring.

RC 255 PULMONARY ASSESSMENT
Credits: 3
Term: (S)
Prerequisite: Completion of the 1st semester of the RT program

This course covers diagnostic techniques and procedures including interview and history taking, chest assessment, chest radiology, laboratory tests, arterial blood gases and an introduction to pulmonary function testing. This information is used to investigate pulmonary diseases.

RC 260 NEONATAL RESPIRATORY CARE
Credits: 3
Term: (SU)
Prerequisite: Completion of the 2nd semester of the RT program

Neonatal Respiratory Care is an infant intensive care course. The student will study fetal to neonatal transition, assessment of the newborn, cardiopulmonary disorders of the newborn and respiratory therapeutic procedures for the newborn.

RC 265 RESPIRATORY CARE IN ALTERNATIVE SITES
Credits: 1
Term: (S)
Prerequisite: Completion of the 4th semester of the RT program

Rehabilitation for the chronic lung disease patient is stressed in this course. Areas discussed include selection of candidates, assessing pulmonary dysfunctions, rehabilitation techniques, biofeedback, home oxygen therapy, psychological factors, patient education, starting a pulmonary rehabilitation program, home care, and patient nutrition.

RC 273 PULMONARY FUNCTION TESTING
Credits: 1
Term: (S)
Prerequisite: Completion of the 4th semester of the RT program

Pulmonary Function Testing is a study of pulmonary diagnostic testing. Course content includes pulmonary function normal values, lung volume tests, ventilation and ventilatory control tests, spirometry, gas distribution tests, diffusion tests, pulmonary function equipment, and quality assurance in the pulmonary function lab.

RC 275 PULMONARY DISEASES
Credits: 2
Term: (F)
Prerequisite: Completion of the 1st semester of the RT program

Pulmonary Diseases surveys etiology, epidemiology, diagnosis, pathology, treatment, and prognosis of diseases of the lungs and diseases which affect the lungs. Diseases studied include pneumonia, tuberculosis, neuromuscular diseases, asthma, RDS, COPD, sleep apnea, pulmonary embolus, cystic fibrosis, and lung cancer.

RC 280 SUPERVISORY MANAGEMENT
Credits: 2
Term: (S)
Prerequisite: Completion of the 4th semester of the RT program

This is a basic management course with an emphasis on the supervisory level in healthcare delivery system. The course focuses on the essential management functions of planning, organizing, staffing, influencing, and controlling. It also includes decision making, communications and legal.

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Course Descriptions - Sign Language (SIGN)

SIGN 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

SIGN 101 Intro to American Sign Lang
Credits: 3
Terms: (F)

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.

SIGN 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

SIGN 201 Intermediate Am Sign Lang
Credits: 3
Prerequisite: SIGN 101

Intermediate Am Sign Lang continues the skill development started in SIGN 101. This course will cover instructions in the grammatical features of ASL, vocabulary development, conversational skills, and exposure to the culture of the deaf community.

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Course Descriptions - Sociology (SOCI)

SOCI 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

SOCI 101 INTRODUCTION TO SOCIOLOGY
Credits: 3
Terms: (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.

SOCI 121 INTRODUCTION TO CRIMINAL JUSTICE
Credits: 3
Term: (F based on sufficient demand)

This course offers exposure to the fundamental perspectives and terminology of the criminal justice system in the United States. It includes the study of the interaction of the individual with the criminal justice system. Students will also examine the causes of criminal behavior and the history, influences, and related fields of knowledge that are connected to the criminal justice system. Topics will include responsibilities of agencies, roles of personnel, and the inter-relationships of criminal justice to political agencies and other factors that influence the criminal justice system.

SOCI 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Statistics (STAT)

STAT 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

STAT 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

STAT 216 INTRODUCTION TO STATISTICS
Credits: 4
Terms: (F,S)
Prerequisite: M 095 or M 116 with a grade of "C-" or higher, or qualifying placement assessment score within the past 3 years

This course presents concepts, principles, and methods of statistics from two perspectives: descriptive and inferential. Statistical topics include organizing data, sampling, and measures of central tendency, probability, correlation, random variables, hypothesis testing, confidence intervals, and inference.

STAT 217 INTERMEDIATE STATISTICAL CONCEPTS
Credits: 3
Term: (S)
Prerequisite: STAT 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.

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Course Descriptions - Surgical Technician (AHST)

AHST 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

AHST 101 INTRODUCTION TO SURGICAL TECHNOLOGY
Credits: 3
Term: (S)
Prerequisite: Acceptance into Surg Tech Program
Co-requisites: AHST 115; AHST 154

This course introduces the career field by discussing the history and development of surgical technology, surgical patients, standards of conduct, hospital administration and organization, communication and teamwork, the operating room environment, safety standards, and biomedical science as it relates to surgical technology. The course provides an orientation to the scrub and circulatory roles of the surgical technologist in the preoperative, intraoperative and postoperative periods. Entry level skills and theories are emphasized.

AHST 115 SURGICAL LAB I
Credits: 3
Term: (S)
Co-requisite: AHST 101, AHST 154
Prerequisite: Acceptance into Surgical Technology Program

This course is designed to go hand-in-hand with the AHST 101 course. This course will present entry level responsibilities and competencies of the surgical technologist and related nursing procedures in both the scrub an circulator roles. This course will include lecture, as well as hands-on, problem solving sessions and clinical observations.

AHST 154 SURGICAL PHARMACOLOGY
Credits: 3
Term: (S)
Prerequisite: Formal acceptance into Surg Tech Program
Co-requisites: AHST 101, AHST 115

This course will provide the student with general pharmacological information of medications commonly used in a surgical setting, what laws pertain to them, how medications are measured, the use, dosages, routes, actions, adverse reactions, how they are labeled, and other considerations of administration. This course is an on-line internet course. This course is to be taken concurrently with Surgical Lab I where the hands-on skills will be presented.

AHST 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

AHST 200 OPERATING ROOM TECHNIQUES
Credits: 5
Term: (F)
Prerequisites: AHST 101, AHST 115, AHST 154
Corequisite: AHST 201, AHST 250

This course builds on the introductory foundational surgical technology knowledge and presents more complex knowledge and associated competencies of the surgical technologist. The course provides a continuation of the responsibilities of the surgical technologist in the scrub and circulatory roles in the preoperative, intraoperative, and postoperative periods. This course provides the knowledge base that correlates with Surgical Lab II.

AHST 201 SURGICAL PROCEDURES I
Credits: 4
Term: (F)
Prerequisites: AHST 101, AHST 115, AHST 154
Corequisites: AHST 200, AHST 215, AHST 250

This course familiarizes students with the surgical technologist's role during surgical procedures in the preoperative, intraoperative, and postoperative phases of diagnostic, general obstetrical/ gynecological, genitourinary, orthopedic and plastic procedures. This course will be an intergration of face-to-face lecture and on-line presentations.

AHST 202 SURGICAL PROCEDURES II
Credits: 5
Term: (S)
Prerequisites: AHST 200, AHST 201, AHST 215, AHST 250
Corequisites: AHST 251, AHST 298

This course familiarizes students with the surgical technologist's role during surgical procedures in the preoperative, intraoperative, and postoperative phases of Otorhinolaryngologic, Oral/Maxillofacial, Opthalmic, Cardiothoracic, Peripheral Vascular, and Neurosurgical procedures. This course will be an integration of face-to-face lecture and online-presentations.

AHST 215 SURGICAL LAB II
Credits: 3
Term: (F)
Prerequisites: AHST 101, AHST 115, and AHST 154
Co-requisite: AHST 250, AHST 200, AHST 201

This course is designed to go hand-in-hand with the AHST 200 course. This course will present entry level responsibilities and competencies of the surgical technologist and related nursing procedures in both the scrub an circulator roles. This course will include lecture, as well as hands-on, problem solving sessions and clinical observation experiences.

AHST 250 SURGICAL CLINICAL I
Credits: 4 (168 Contact Hours)
Term: (F)
Prerequisites: AHST 101, AHST 115, AHST 154

This course will provide a supervised clinical experience in surgical settings providing scrub, assisting, and circulating experience on surgical procedures level I and level II. Each student will be assigned a specific surgical facility, and then assigned a specific preceptor who will become their daily on-site clinical mentor. In addition to the clinical experience, student will have a weekly debriefing facilitated by the instructor in order to share clinical experiences and learn from each other.

AHST 251 SURGICAL CLINICAL II
Credits: 5 (216 Contact Hours)
Term: (S)
Prerequisites: AHST 200, AHST 201, AHST 215, AHST 250
Corequisites: AHST 205

This course will provide a supervised clinical experience in surgical settings providing scrub, assisting, and circulating experience on surgical procedures level I and level II as in Clinical I. However, a greater degree of proficiency and independence will be expected from the student. Each student will be assigned a specific surgical facility, and then assigned a specific preceptor who will become their daily on-site clinical mentor.

AHST 298 SURGICAL INTERNSHIP
Credits: 5 (240 Contact Hours)
Term: (S)
Prerequisites: AHST 200, AHST 201, AHST 215, AHST 250
Corequisites: AHST 202, AHST 251

This course will provide a minimally supervised clinical experience in surgical settings providing scrub, assisting and circulating experience on surgical procedures level I - III. However, a greater degree of proficiency and independence will be expected from the student. The internship develops the student's competencies as a first scrub on surgical procedures, and acquaints them with the professional expectations of surgical technologists as a capstone experience preparing them for initial employment. The course provides the student with the actual experience in surgical procedures, team work, flexibility, organization and efficiency. In addition, the student will learn how to prepare all supplies and equipment used in the operating room in preparation for surgical procedures.

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Course Descriptions - Technical Administrative Skills (TASK)

TASK 090 INTRODUCTORY KEYBOARDING
Credits: 3
Term: (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.

TASK 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

TASK 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
Credit-bearing professional and continuing education (PCE) courses offered to provide students and professionals condensed courses for skills upgrades, Professional Certification requirements, and as electives for the Associate of Arts (AA) or Associate of Science (AS) degrees. These courses may be eligible for financial aid for students pursuing the AA or AS degrees and are transcripted on the student's undergraduate transcript.

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Course Descriptions - Welding Technology (WLDG)

WLDG 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

WLDG 103 WELDING FUNDAMENTALS FOR CONSTRUCTION TRADES
Credits: 2
Term: (F)
Prerequisites: CSTN 135, CSTN 145, CSTN 161, CSTN 171
Corequisites: CSTN 230, CSTN 260

This course is specifically designed to teach students the basic welding methods that a carpenter might face (i.e. steel studs). Students will cover basic welding processes used in the trade applications.

WLDG 106 WELDING FABRICATION METHODS
Credits: 3
Term: (S)
Prerequisites: WLDG 110, WLDG 111, WLDG 121, WLDG 205
Corequisites: WLDG 120, WLDG 122

This course provides an introduction to basic fabrication of structural steel in accordance with industry standards.

WLDG 110 WELDING THEORY I
Credits: 2
Term: (F)

This course covers welding safety, oxy-fuel and shielded metal arc welding (SMAW), definitions covering joining common metals, joint and weld classifications, welding positions, power source selection, plus manual and semiautomatic cutting principles, and terminology.

WLDG 111 WELDING THEORY I PRACTICAL
Credits: 3
Term: (F)
Corequisite: WLDG 110

Oxy-fuel practical work will involve fusion welding, brazing, and cutting. Shielded metal arc welding (SMAW) practical work will involve flat and horizontal welding skills using a variety of electrodes.

WLDG 117 BLUEPRINT READING & WELDING SYMBOLS
Credits: 2
Term: (F)

This course will introduce blueprints and emphasize reading and interpreting welding symbols. Topics covered include basic blueprint reading for welders; basic lines, basic views, title block information, dimensions, structural shapes, auxiliary views, section views, detail prints, welding symbols and other various blueprint information.

WLDG 120 WELDING THEORY II
Credits: 1
Term: (S)
Corequisite: WLDG 122
Prerequisites: WLDG 110, WLDG 111, WLDG 121

This course will concentrate on the processes which use inert and/or inert and active gas mixtures for shielding during welding. Gas metal arc welding (GMAW) or MIG, gas tungsten arc welding (GTAW) or TIG, and plasma welding and cutting (PAW/PAC) operations will be thoroughly covered. Process selection and use for welding ferrous and nonferrous metals will be covered.

WLDG 121 WELDING THEORY II PRACTICAL
Credits: 3
Term: (F)
Corequisite: WLDG 110, WLDG 111

Practical work involves the application of GMAW and GTAW as it is used in industry today. Use of the various modes of metal transfer, joint styles, welding positions, welding of carbon and stainless steels, and aluminum alloys on various joint styles and in various welding positions, and manipulation techniques will be emphasized.

WLDG 122 WELDING THEORY III PRACTICAL
Credits: 3
Term: (S)
Corequisite: WLDG 120
Prerequisites: WLDG 110, WLDG 111, WLDG 121

This course continues skill development from WLDG 121. Practical work involves the application of GMAW and GTAW as it is used in industry today. Use of the various modes of metal transfer, joint styles, welding positions, welding of carbon and stainless steels, and aluminum alloys on various joint styles and in various welding positions, ad manipulation techniques will be emphasized.

WLDG 130 INTRODUCTION TO STRUCTURAL WELDING
Credits: 3
Term: (S)
Prerequisites: WLDG 110, WLDG 111, WLDG 121, WLDG 205
Corequisites: WLDG 120, WLDG 122

This course covers Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW)), and Flux Core Arc Welding (FCAW) of structural steel and stresses certification code welding on plate and structural steel in all positions. Course instruction and related information will include gas metal and flux core arc welding equipment and welding variables, shielding gases, troubleshooting equipment and weld defects, welder certification and welding codes.

WLDG 141 WELDING SHEET METAL
Credits: 1
Term: (F)
Corequisites: TB 121. TB 122, TB 123

Covers the basic methods and techniques used when Metal Inert Gas (MIG) welding sheet metal. This class focuses on the thinner gauge metals used on today's automobiles.

WLDG 145 FABRICATION BASICS
Credits: 3
Term: (S)
Prerequisites: WLDG 110, WLDG 111, WLDG 121, WLDG 205
Corequisites: WLDG 120, WLDG 122

The introduction to basic fabrication of structural steel in accordance with industry standards.

WLDG 185 WELDING QUALIFICATION TEST PREPARATION
Credits: 2
Term: (S)
Prerequisites: WLDG 110, WLDG 111, WLDG 121, WLDG 205
Corequisites: WLDG 120, WLDG 122

This is an advanced course in Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW)), and Flux Core Arc Welding (FCAW) procedures to prepare for industrial certification. This includes welding single vee groove weld-but joints with backing strips in the flat, horizontal, vertical, and overhead position following the American Welding Society (AWS) and the American Society of Mechanical Engineers (ASME) code specifications.

WLDG 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
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WLDG 205 APPLIED METALLURGY
Credits: 2
Term: (F)

This course covers basic metallurgical principles and their relationship to the following processes: welding, machining, forming, heat treating, and finishing of ferrous and nonferrous metals. Includes applied metallurgy lab testing exercises.

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Course Descriptions - Writing (WRIT)

WRIT 080 BUILDING BASIC WRITING SKILLS
Credits: 4
Terms: (F,S)
Prerequisite: Qualifying placement assessment score

This class prepares those students making progress toward full admission to MSU for college-level reading and composition. The course introduces students to critical reading practices by focusing on textual analysis of non-fiction works and to writing for academic purposes by focusing on the development of the paragraph. The course also provides, in the context of the writing, a review and reinforcement of principles of English grammar and punctuation associated with successful college-level writing. The goal of this course is to develop confidence and ability to write clear and effective paragraphs and to read college-level texts.

WRIT 094 PCE TOPIC
Non-credit professional and continuing education (PCE) courses offered to provide condensed coursework to meet the needs of working students and professionals. These courses are eligible for Continuing Education Units (CEU's) and OPI Renewal Units and are transcripted on the student's continuing education transcript.

WRIT 095 DEVELOPMENTAL WRITING
Credits: 4
Terms: (F,S, SU)
Prerequisite: Qualifying placement assessment score

This class prepares those students making progress toward full admission to MSU for college level reading and composition. The course introduces students to critical reading practices within thematic non-fiction, fosters student critical thinking based on textual analysis, and encourages
questioning and exploration. Composing paragraphs and short essays provides a review and reinforcement of principles of English grammar and punctuation associated with successful college-level writing. Confidence and ability to write clear and effective sentences are assumed.

WRIT 101 COLLEGE WRITING I
Credits: 3
Terms: (F,S,SU)
Prerequisite: WRIT 095 with a grade of "C-" or higher or qualifying placement assessment score

Composition I offers a clearly defined sequential approach to writing the short essay and the research paper. Emphasis is placed on pre-writing skills, organizational techniques, development of ideas, word choice, sentence structure, referential skills, and patterns of writing-exposition, narration, description, and argumentation. Competence in basic sentence structure and writing skills at the paragraph and short essay level is assumed.

WRIT 104 WORKPLACE COMMUNICATIONS
Credits: 2 Term: (S)

This course reviews the basic elements of grammar and language arts skills in business writing. Emphasis is placed on writing business letters, memos, emails, and reports for a variety of business applications as well as giving oral presentations. Letters of application and resumes are also covered.

WRIT 122 INTRO TO BUSINESS WRITING
Credits: 3
Terms: (F,S)
Prerequisite: WRIT 095 with a grade of "C-" or higher, qualifying placement assessment score, or instructor approval

Students of this course develop the skills to generate clear, concise documents for the world of work. Emphasis is placed on format, tone, style, and organization of business letters, memos, and reports. Appropriate conventions for business style, punctuation, and handling of electronic communications are included. Course is taught by computer-assisted instruction.

WRIT 194 PCE TOPIC
Credits: VARIES (Sufficient Demand)
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WRIT 201 COLLEGE WRITING II
Credits: 3
Terms: (F,S)
Prerequisite: WRIT 101

A continuation of the study of the modes of composition introduced in College Writing (WRIT 101), 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.

WRIT 220 BUSINESS & PROFESSIONAL WRITING
Credits: 3
Terms: (F,S)
Prerequisite: WRIT 095

Students will develop work-related skills producing both business communications and technical documents. Business letters and memos address a variety of business contexts. Instructions, technical descriptions, proposals, feasibility studies, and management plans reflect working documents that emphasize structure, format, and tone for a variety of professional audiences. This high-level course is taught by computer-assisted instruction. Entrepreneurship students should register for both BUS 260 and WRIT 220 in their last semester. On-campus offering of WRIT 220 is recommended for Entrepreneurship students.

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Faculty & Administrative Staff

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A		
Sandra I. Allen, CST	Surgical Technology	A.S., Miami Dade Community College
Cheryll Alt	Practical Nursing Program Director	M.S.N., Nebraska Methodist College B.S.N., California State University, San Diego
B		
Leonard Bates	Respiratory Care	M.Ed., Montana State University – Northern B.A., State University of New York, Albany A.S., San Antonio College
Mary Ellen Baukol	Associate Dean for Administration/Finance	M.B.A., University of Montana B.S., Montana State University Billings
Marilyn Besich	Business Management/ Entrepreneurship	Ed.D., Montana State University M.A.S. & B.A., University of Montana
Ed Binkley	Controller	M.B.A., Illinois State University B.A., Millikin University
Richard Blevins	Medical Director, Respiratory Care	M.D., University of Colorado B.S., Montana State University
Mary Kay Bonilla	Executive Director, Human Resources	B.S., University of Montana
Jeff Brown	Computer Information Technology	Doctoral Candidate, Montana State University M.B.A., Pacific Lutheran University B.S., U.S. Military Academy, West Point
C		
Jana Carter	English	M.A., Arizona State University B.A., Western Washington University A.A., Yakima Valley Community College
David Cohenour	Welding in Bozeman	B.S., Montana State University
Susan Cooper	Health Sciences	M.S., University of Arizona B.A., University of Missouri – St. Louis
E		

Donna Eakman	Office Technology	M.S., University of Montana B.S., Montana State University
F		
Thomas Figarelle	Development Office	B.S., University of Montana
Hildee Fike	Mathematics	M.S., Montana State University B.S., Montana State University – Northern
Tamatha Filliater	Biology / Chemistry	M.S., University of Dayton B.S., University of South Carolina, Columbia
Teri M. Ford Dwyer	Business Management/ Entrepreneurship	M.B.A. & B.A., University of Montana
Dana Freshly	Academic Advisor	M.Ed. & M.S., Montana State University – Northern B.S., University of Great Falls
G		
Kyle Gillespie	Welding	Certificate, Millstream Career & Technical Center
Bruce Gottwig	Computer Information Technology	M. Ed., Lesley University B.S., Montana State University Billings
Debra Gunter	Budget & Purchasing Officer	B.S., A.A., Montana Tech of the University of Montana
H		
Leah Habel	Financial Aid Director	B.A., Carroll College
Jason Harding	Auto Body Repair & Refinishing	A.A.S., Wyoming Technical Institute
Ryan Haskins	Director of Workforce Programs and Aviation in Bozeman	B.S., University of Montana
Judy Hay	Assistant Dean of Student Services	M.Ed. & B.S., Montana State University
Colleen Hazen	English	M.A., Western Illinois University B.A., Washington State University
Janet Heiss-Arms	Director of Academic Success Initiatives in Bozeman	Ph.D. & M.S., University of Wisconsin – Madison B.A., University of Puget Sound
Joel Henderson	Emergency Medical Services	A.A.S., Montana State University – Great Falls COT
Jeffrey Hostetler	English	M.A., Montana State University
J		
Andrea Johnson	Physical Therapist Assistant - Program Director	M.S., University of South Dakota B.S., Montana State University
Rebecca Johnson	Mathematics	M.S., Montana State University A.S. & B.S., Montana Tech / University of Montana
Courtney Johnsrud	Career Services/ Transfer Advisor	M.Ed., Montana State University – Northern M.A., John Jay College

		B.A., Beloit College
K		
J. Scott Karaffa	Director of Facilities Services	B.S., Montana State University
Jill Schaefer Keil	Mathematics	M.A.T., University of Montana B.S., University of Great Falls
Patti Kercher	Practical Nursing	M.S.N., Nebraska Methodist College B.S.N. & A.D.N., Montana State University – Northern
Lanni Klasner	Marketing & Recruitment Manager	B.S., Montana State University Billings
L		
Bonnie Lederman, DDS	Dental Hygiene	D.D.S. & R.D.H., University of Maryland
Thomas Liston, RT	Radiologic Technology	Montana State Licensed RT
M		
Charlene Marshall	Physical Therapist Assistant	B.S., University of Minnesota A.A.S., Northeast Wisconsin Technical College
Kirk Mattingly	Design Drafting Technology	M.A. & B.S., Montana State University – Northern
Cherie McKeever	Biology	D.V.M., University of Illinois B.S., University of Illinois College of Veterinary Medicine
Linda McNeill	Customized Training – Great Falls	B.S., Minot State College
Katherine Meier	Director of Disability and Learning Services	M.Ed. & B.A., University of Great Falls
Julie Myers	Interior Design in Great Falls	B.A., Montana State University
N		
Deborah Newton	Medical Office Programs	Ph.D., New Mexico State University M.A. & B.S., New Mexico State University
Jon Nitschke	Accounting	M.Ed., Montana State University – Northern B.S., University of Montana
O		
Thomas Oakberg	Mathematics	M.S. & B.S., Montana State University
P		
Pamela Parsons	Executive Director of College Relations & Advancement	M.S., Montana State University – Billings B.S., Montana State University
Heidi Pasek	Associate Dean of Instruction, Assessment and General Education	Ed. D., Montana State University M.P.C., University of Great Falls B.S., Utah State University
Tim Paul	Computer Information	B.A., University of Michigan

(Post-Retirement)	Technology	
Gregory Paulauskis	Radiologic Technology - Program Director Respiratory Care	Ph.D., Berne University M.Ed., Montana State University – Northern B.S., Loma Linda University A.A., Pacific Union College A.S., Butte College
Roger Peffer	Biology	M.S., Eastern Washington University B.S. & B.A., Evergreen State College A.A., Green River Community College
Carmen Perry	Dental Assisting	M.Ed., Montana State University B.S. & A.A., University of Great Falls
Mark Plante	Mathematics	M.S., Montana State University B.A., University of Minnesota A.A., Lakewood Community College
Jeri Pullum	Grant Writer	M.S., Nova Southeastern University B.A., University of Montana
R		
Richard Rehberger	Mathematics	M.S., Montana State University B.S., Gonzaga University
S		
John Savage	Mathematics	M.S., Montana State University M.S., Polytechnic University M.B.A., University of Chicago B.S., Bucknell University
Joseph Schaffer	Interim Dean/CEO	M.S., Montana Tech of the University of Montana B.S., University of Montana A.A., Bemidji State University–Minnesota
Kim Schrenk	Interim Coordinator of Adjunct & Outreach Services	M.S., Walden University B.S., Montana State University
Ryan Schrenk	Director of Technology – Facilitated Learning	M.A., George Washington University B.S., Montana State University
Cynthia Schultz	Practical Nursing	B.S., Montana State University – Northern
David Simpson, D.O., FACOEP	Medical Director, Emergency Services	D.O., Kirksville College B.A., Idaho State University
Shelli Spannring	Mathematics	M.S. & B.A., Montana State University
Gail Staples	Dental Hygiene	B.A., Carroll College
V		
Lawrence J. Vaccaro, Jr.	Communication	M.Ed., Montana State University – Northern M.A., University of Northern Colorado M.S., Air Force Institute of Technology B.A.A.S., Southwest Texas State University
Dennis Veleber	Sociology	M.S. & B.A., University of Montana
W		

Dena Wagner-Fossen	Registrar	B.A., Wittenberg University B.S., University of Montana-Western
Lynn Ward	Health Information Technology	M.B.A., Stephens College B.S., Southern New Hampshire University
Kenneth Wardinsky	Chief Technical Officer	M.S.M., Colorado Technical University B.A.S., Montana State University – Northern A.A.S., Montana State University – Great Falls
Adam Wenz	Chemistry	M.S. & B.S., Montana Tech of the University of Montana
Robin Williams	Dental Assisting	M.S. & B.S., Montana State University
Linda Wing	Dental Hygiene	B.S., University of South Dakota A.A.S., University of South Dakota
Kim Woloszyn	Dental Hygiene - Program Director	B.A., Carroll College
Mandy Wright	English	M.Ed., Montana State University M.A., Montana State University B.A., Carroll College

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Support Personnel

- Lisa Albert - Human Resources
- David Bonilla - Computer Support
- Courtney Brooks - Bookstore
- Sandy Brown - Cafeteria
- Kirsten Bryson - Library
- Pamela Buckheit - Business, Tech & Trades Dept
- Marie Cherry - Accounting
- Delisa Clampitt - Learning Center
- Dwight Cook - Maintenance
- Beth Cooper - Library
- Terra Cusack - Bozeman COT
- Thomas Degel - Registrar's Office
- Gerald Eberl - Maintenance
- Cheril Edam - Student Accounts
- Kelli Engelhardt - Financial Aid
- Lee Anne Gills - Arts & Sciences Dept
- Julie Freshly - Student Central
- Kathleen Haggart - Payroll
- Steven Halsted - Bookstore
- Melanie Houge - Admissions
- Jodi Howard - Health Sciences
- Tabby Jagger - COT in Bozeman
- Lorene Jaynes - Associate Deans Offices
- Rhonda Kueffler - Webmaster/Graphic Designer
- Jack Logozzo - Maintenance
- Craig Lucas - Maintenance
- Loretta Marquis - Cafeteria
- Shiloh Mattingly - Maintenance
- Cheryl McGee - Maintenance
- Willie McGee - Computer Support
- Courtney Millette - Bozeman COT
- Lee Ann Myllymaki - Student Accounts/Student Central
- Natalie Nefzger - Recruiter
- Heather Palermo - Dean's Office
- Melanie Paul - Dental Clinic
- Kirsten Rantz - Accounting
- Dustin Ratliff - Bookstore
- Deborah Richerson - Outreach
- Julie Rummel - Financial Aid
- Cortney See - Student Central
- Eugene Stewart - Autobody/Maintenance
- EJ Suek - Computer Support
- James Sweat - Print Center
- Susan Thomas - Facility Coordinator
- Barbara Towne - Bookstore
- Benjamin Truman - Library
- Karen Vosen - Distance Learning
- Brian Wergin - Construction Trades
- Ronald Wynegar - Maintenance

MSU-Great Falls College of Technology | 2100 16th Ave. South | Great Falls, MT 59405
Toll Free 800.446.2698 | FAX: 406.771.4317 | TTY: 406.771.4424 |

Credentials: Regional Accreditation

MSU–Great Falls College of Technology is regionally accredited by Northwest Commission on Colleges and Universities (NWCCU). NWCCU is an independent, not-profit membership organization recognized by the U.S. Department of Education and the Council for Higher Education Accreditation (CHEA) as the regional authority on education, quality, and institutional effectiveness of higher education institutions in the seven-state Northwest region of Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington. It fulfills its mission by establishing accreditation criteria and evaluation procedures by which institutions are reviewed.

Northwest Commission on Colleges and Universities
8060 165th Avenue N.E.
Suite 100
Redmond, WA 98052
Tel (425) 558 4224

Program Accreditation

Practical Nurse Program
Approved by the Montana State Board of Nursing
301 South Park, Room 430
PO Box 200513 Helena, MT 59620-0513
Tel (406) 841-2300 Receptionist

Dental Assisting
Accredited by the American Dental Association
Council on Dental Education
211 East Chicago Avenue
Chicago, Illinois 60611
Tel (312) 440-4653

Dental Hygiene
Accredited by the American Dental Association
Commission on Dental Accreditation
211 East Chicago Avenue
Chicago, Illinois 60611
Tel (312) 440-4653

Health Information Coding Specialist
This program is approved by:
American Health Information Management Association (AHIMA)
Assembly on Education
233 N. Michigan Avenue, Suite 2150

Physical Therapist Assistant
Commission on Accreditation in Physical Therapy Education (CAPTE)
American Physical Therapy Association
1111 North Fairfax Street
Alexandria, VA 22314
accreditation@apta.org
Tel (703) 684-2782 or (703) 706-3245

Respiratory Care
Commission on Accreditation of Allied Health Education Programs (CAAHEP)
1361 Park Street
Clearwater, FL 33756
Tel (727) 210-2350

Committee on Accreditation for Respiratory Care (CoARC)
1248 Harwood Road
Bedford, TX 76021-4244
Tel (817) 283-2835

Surgical Technology
Commission on Accreditation of Allied Health Education Programs (CAAHEP)
1361 Park Street
Clearwater, FL 33756
Tel (727) 210-2350

Chicago, IL 60601-5800
Tel (312) 233-1100

Health Information Technology
Commission on Accreditation for Health Informatics & Information Management Education (CAHIIM)
Accreditation Services
c/o AHIMA
233 N. Michigan Ave, Suite 2150
Chicago, IL 60601-5800

Accreditation Review Committee on Education in Surgical Technology (ARC-ST)
6 West Dry Creek Circle
Suite 210 Littleton, CO 80120
Tel (800) 637-7433 or (303) 694-9130

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Student Information - Library

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

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