

ADDENDUM TO 2007-2008 CATALOG

(Last Updated December 28, 2007)

This addendum reflects changes to the 2007-2008 Catalog that went into effect after the catalog went to print.

Admissions Requirements changes to the immunization requirements

Associate of Arts NEW Elementary Education Transfer to MSU-Northern Elementary Education

Associate of Arts NEW curriculum

Associates of Science NEW curriculum

Auto Body Repair and Refinishing program changes **(NOW Associate of Applied Science)**

Aviation program changes

Biology Course Description changes NEW Biology for Rad Tech

Computer Information Technology Network Support program changes

Computer Information Technology Pre or Co-Requisite changes

Computer Server Administration Certificate of Applied Science **(NEW program)**

Creative Arts Enterprise not teaching any classes Fall 2007

EMT – Intermediate 99 NEW Certificate The Certificate in EMT-Paramedic has been removed. The College still offers the Associate of Applied Science in EMT-Paramedic (refer to page 62 in the 2007-2008 Catalog). The College now offers a Certificate of Applied Science in EMT-Intermediate 99.

Experiential Learning NEW Policy affects Challenge policy on page 6 of the 2007-2008 Catalog

Health Information Technology Course Description changes

Medical Billing Specialist correcting course errors

Medical Billing and Coding Specialist Associate of Applied Science **(NEW program)**

Network Infrastructure Certificate of Applied Science **replacing NETWORK TECHNOLOGY** on page 45 in the 2007-2008 catalog

Office Support Program Correcting Course Errors

Office Technology Course Description changes new course descriptions and changes to previous descriptions

Office Technology Program Changes new name and correcting course errors

NEW Professional Certifications for page 15-16 in 2007-2008 catalog

No longer offering the Professional Certifications on page 15-16 in 2007-2008 catalog

Physical Therapist Assistant Accreditation Status achieved

Practical Nurse program changes **(NOW Associate of Applied Science)**

Radiologic Technology 2007-2008 program changes (NEW Biology course and prerequisite changes)

Radiologic Technology Associate of Applied Science Degree **(NEW Curriculum for 2008-2009 Catalog)**

Radiologic Technology Course Description changes

Residency Requirements **WUE Information**

[Surgical Technology](#) program changes (NOW Associate of Applied Science)

[Surgical Technology Course Description changes](#)

[Transfer from Other Institutions](#) additional information regarding appeals

ADMISSION REQUIREMENTS FOR DEGREE SEEKING STUDENTS

*Changes the Admissions Requirements found on page 4 of the 2007-2008 Catalog
(Effective Fall 2007)*

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

File a medical or religious exemption; or

Show proof of age, if born prior to January 1st, 1957.

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

For more information about the Administrative Rules of Montana regarding immunizations, visit the links below:

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

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

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

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ASSOCIATE OF ARTS DEGREE WITH ELEMENTARY EDUCATION TRANSFER TO MSU-NORTHERN – ELEMENTARY EDUCATION

The Associate of Arts in Elementary Education Concentration is designed for students interested in a baccalaureate degree in Elementary Education at Montana State University-Northern. A final cumulative grade point average of at least 2.5 is required. Students must provide proof of a current 1st Aid/CPR card prior to entering their junior year at MSU-Northern.

NOTE: 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.

I. MUS CORE - 31 SEMESTER HOURS

COMMUNICATION--6 CREDITS

Course	No.	Title	Credits
ENGL	121**	Composition I	3
COMM	135	Interpersonal Communication	3

MATHEMATICS--3 CREDITS

Course	No.	Title	Credits
MATH	130**	Precalculus Algebra	4
MATH	131**	Precalculus Trigonometry	3
MATH	161**	College Algebra w/ Science App	3
MATH	181**	Calculus I	4

HUMANITIES/FINE ARTS--6 CREDITS

Course	No.	Title	Credits
ENGL	114	Intro to Literature AND 1 of the following	3
ART	101	Intro to Visual Arts	3
ART	114	Art Fundamentals	3
ART	140	Drawing I	3
DE	161	Introduction to Design	3
ENGL	210*	World Literature I	3
ENGL	211*	World Literature II	3
ENGL	217	Creative Writing	3
HUM	242	Gender & Equality	3
MUS	102	Fundamentals of Music	3
MUS	210	Music Appreciation	3
MUS	212	American Music	3
MUS	214	World Music	3
PHIL	101	Introduction to Philosophy	3
PHIL	232	Basic Ethics	3
THEA	101	Intro to Theater/Performing Arts	3

NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103	Introduction to Biology/Lab	4
PHYS	130	Fund Physical Science Lab	4

SOCIAL SCIENCES/ HISTORY --6 CREDITS

Course	No.	Title	Credits
HIST	210N	Montana History	3
PSY	109	Lifespan Development	3

APPROVED SEPTEMBER, 2007

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+ A grade of "C-" or above required for graduation

* Indicates prerequisites needed

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

CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
NAS	201N	Montana's American Indians	3
NAS	215N	Native American Religious Trad	3

CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

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

II. COMPUTER SKILLS/USAGE - 3 CREDITS

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

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

III. ARTICULATION COURSEWORK – 21 CREDITS

Course	No.	Title	Credits
EDUC	201	Intro to the Education Experience	3
MATH	120	Math for Elementary Teachers	3
ENGL	122	Composition II	3
HHDC	106	Drug & Health Issues for Education	3
EDUC	240	Instructional Technology	3
EDPY	220	Educational Psychology	3
POLS	206	U.S. Government	3

IV. ELECTIVES - 5 CREDITS

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

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

TOTAL PROGRAM CREDITS - 60

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

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

The Biology 107 requirement for this program has been replaced by Biology 103 Introduction to Biology/Lab

ASSOCIATE OF ARTS DEGREE

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

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

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

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

Outcomes: Graduates are prepared to:

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

I. MONTANA UNIVERSITY SYSTEM CORE - 31 SEMESTER

HOURS

COMMUNICATION--6 CREDITS

(NEED 3 WRITING & 3 VERBAL CREDITS)

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

MATHEMATICS--3 CREDITS

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

HUMANITIES/FINE ARTS--6 CREDITS

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

NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

Course	No.	Title	Credits
BIO	103	Introduction to Biology/Lab	4
BIO	107	Fund of Human Biology/Lab	4
BIO	205	Personal Nutrition	3
CHM	111*	Inorganic Chemistry/Lab	4

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

SOCIAL SCIENCES/ HISTORY --6 CREDITS

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

CULTURAL DIVERSITY--3 CREDITS

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

CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

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

II. COMPUTER SKILLS/USAGE - 3 CREDITS

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

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

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

III. CONCENTRATION IN ARTS, HUMANITIES, 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, (ECON) Economics, (EDPY) Educational Psychology, (ENGL) English (except ENGL 118 or ENGL 119), (HIST) History, (HUM) Humanities, (MUS) Music, (ML) Modern Languages, (NAS) Native American Studies, (POLS) Political Science, (PHIL) Philosophy, (PSY) Psychology, (SOC) Sociology

IV. ELECTIVES - 17 CREDITS

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

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

TOTAL PROGRAM CREDITS - 60

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

Approved by ASAC, July 2009

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+ A grade of "C-" or above required for graduation

* Indicates prerequisites needed

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

ASSOCIATE OF SCIENCE DEGREE

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

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

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

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

Students who complete the Associate of Science degree will:

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

I. MONTANA UNIVERSITY SYSTEM CORE - 31 SEMESTER HOURS

COMMUNICATION--6 CREDITS

(NEED 3 WRITING & 3 VERBAL CREDITS)

Course	No.	Title	Credits
ENGL	121**	Composition 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
MATH	130**	Precalculus Algebra	4
MATH	131**	Precalculus Trigonometry	3
MATH	150**	Math for Liberal Arts	3
MATH	161**	College Algebra w/ Science App	3
MATH	181**	Calculus I	4
MATH	216**	Basic Statistics	4

HUMANITIES/FINE ARTS--6 CREDITS

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

Approved by ASCC, July 2007

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NATURAL SCIENCE--7 CREDITS

(Must include 1 lab course)

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

SOCIAL SCIENCES/ HISTORY --6 CREDITS

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

CULTURAL DIVERSITY--3 CREDITS

Course	No.	Title	Credits
ANT	101	Intro to Anthropology	3
BUS	249	Global Marketing	3
ENGL	214N	Literature of the West	3
HUM	244	American Cultural Values	3
ML	121	Intro to American Sign Lang	3
NAS	201N	Montana's American Indians	3
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CULTURAL HERITAGE OF AMERICAN INDIANS--3 CREDITS

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

II. COMPUTER SKILLS/USAGE - 3 CREDITS

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

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

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

III. CONCENTRATION IN MATH AND SCIENCE - 9 CREDITS

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

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

IV. ELECTIVES - 17 CREDITS

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

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

TOTAL PROGRAM CREDITS - 60

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

+ A grade of "C-" or above required for graduation

* Indicates prerequisites needed

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

AUTO BODY REPAIR AND REFINISHING

ASSOCIATE OF APPLIED SCIENCE DEGREE

REPLACING CERTIFICATE ON PAGE 39 OF 2007-2008

CATALOG

APPROVED BY BOR MAY 2007 – MAJOR CURRICULAR CHANGES

ADVISOR: JASON HARDING

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

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

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

The Auto Body course of study will prepare a student to:

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

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

Fall Semester 1

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

Spring Semester 1

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

Fall Semester 2

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

Spring Semester 2

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

TOTAL PROGRAM CREDITS - 61

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

+ A grade of "C-" or above required for graduation

* Indicates prerequisites needed

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

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AVIATION

ASSOCIATE OF APPLIED SCIENCE

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:

- Earn a Private Pilot Certificate:
 - Students will complete the Private Pilot FAA knowledge exam
 - Students will complete the Private Pilot FAA practical test
- Demonstrate proficiency in both oral and written communication.
- Demonstrate proficiency in math computation, and will also be proficient in general science.
- Apply all aspects of aviation safety.
- In addition to the competencies gained by obtaining a Private Pilot Certificate, graduate will earn the FAA instrument Rating preparing them in the following:
 - Students will complete the FAA Instrument knowledge exam
 - Students will complete the FAA instrument practical test
- In addition to the competencies gained by obtaining a Private Pilot certificate and FAA instrument certificate, graduates will earn a Commercial Pilot Certificate preparing them in the following:
 - Students will complete the FAA Commercial knowledge exam
 - Students will complete the FAA Commercial Pilot practical test
- In addition to the competencies gained by obtaining a Private Pilot certificate, FAA Instrument certificate, FAA Commercial Certificate, graduates will earn a Certified Flight Instructor certificate preparing them in the following:
 - Students will complete the FAA Fundamentals of Instruction knowledge exam.
 - Students will complete the FAA Certified Flight Instructor knowledge exam.
 - Students will complete the FAA Certified Flight Instructor practical test.

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

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

AST 142-Private Pilot (50 flight hours) 2 credits
 AST 242-Commercial/Instrument I (75 flight hours) 2 credits
 AST 252-Commercial/Instrument II (125 flight hours) 2 credits

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+ A grade of "C-" or above required for graduation

* Indicates prerequisites needed

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

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.

Estimated Program Cost:

Tuition and Fees	\$5964
Application Fee	30
Flight School	36574
Books/Supplies	<u>1500</u>
	\$44068

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

SPRING SEMESTER			
Course	No.	Title	Credits
AST	171*	Aircraft Systems	3†
AST	241*	Advanced Navigation Systems	3†
AST	242	Commercial/Instrument Flight I (75 Flight Hours)	2†
AST	243*	Instrument/Commercial Theory I	3†
AST	250*	Aviation Operations	3†
CIT	120*	Internet Essentials	<u>2†</u>
		Subtotal	16

FALL SEMESTER			
Course	No.	Title	Credits
AST	245*	Instrument/Commercial Theory II	3†
AST	252*	Commercial/Instrument Flight II (125 flight hours)	2†
AST	261	Aviation Safety	3†
COMM	135	Interpersonal Communication	3†
PHYS	130	Fundamentals of Physical Science	<u>4†</u>
		Subtotal	15

SPRING SEMESTER			
Course	No.	Title	Credits
AST	260*	Flight Instructor Theory	3†
AST	262*	Advanced Aircraft Theory	3†
AST	263*	Aviation Regulations and Professional Conduct	3†
AST	281*	Certified Flight Instructor	1†
PHYS	110	Survey of Natural Science	4†
ENGL	121**	Composition I	<u>3†</u>
		Subtotal	17

TOTAL PROGRAM CREDITS - 62~

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

This program articulates with a Bachelor of Science degree in Aviation at Rocky Mountain College in Billings, MT. For details contact Ryan Haskins, Program Director for Aviation Technology, 406-994-6151, rhaskins@msugf.edu, or Dan Hargrove, Director of Aviation at Rocky Mountain College, 406-657-1060, aviation@rocky.edu

Changes to Aviation AAS

- CIT 120 Internet Essentials Removed from program
Approved by ASCC July, 2007

BIO 202 ***Human Anatomy for Rad Techs***

Credits: 3 (studio format mixing lecture and lab) (S)

This course is an integrated study of the human body in which the detailed anatomy of the skeletal, respiratory, circulatory, digestive, nervous, urinary, and reproductive systems is covered. This course is designed to provide students with the fundamentals of human anatomy necessary for successful completion of the Radiologic Technology program at MSU-COT by providing an interactive, hands-on learning environment.

Approved by ASCC October, 2007

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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 Program Cost:

Tuition and Fees	\$7455
Application Fee	30
Lab Fees	150
Books/Supplies	<u>1650</u>

SUMMER SEMESTER

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

~ CIT 111 may be taken Fall semester year one.

CIT 125 and 166 can be taken either semester year one.

FALL SEMESTER

Course	No.	Title	Credits
CIT	126*	Networking Fundamentals	3+
CIT	176*	Routers and Routing Basics	3+
CIT	210*	Network Operating Systems I	2+
CIT	211*	Network Operating Systems II	2+

SPRING SEMESTER

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

FALL SEMESTER

Course	No.	Title	Credits
CIT	215*	Network Operating Systems V	2+
CIT	216*	Network Operating Systems VI	2+
CIT	278*	Advanced Routing	4+
CIT	279*	Remote Access	4+
MATH	108**	Algebra for College Students OR	
MATH	130**	Precalculus Algebra OR	
MATH	150**	Math for Liberal Arts OR	
MATH	181**	Calculus	3/4+
		Subtotal	15-16

SPRING SEMESTER

Course	No.	Title	Credits
CIT	275*	Computer End-User Support	3+
CIT	281*	Multilayer Switching	4+
CIT	282*	Network Troubleshooting	4+
CIT	287*	IP Telephony	3+
ENGL	121**	Composition I	3+
		Subtotal	17

TOTAL PROGRAM CREDITS – 71/72~

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

TECHNICAL ELECTIVES

Course	No.	Title	Credits
CIT	215*	Network Operating Systems V	2+
CIT	216*	Network Operating Systems VI	2+
CIT	206*	Database Management II	3+
CIT	208*	Fundamentals of UNIX/LINUX	4+
CIT	255*	Fund of Network Security I	3+
CIT	256*	Fund of Network Security II	3+
CIT	283*	Fundamentals of Wireless LAN	3+
CIT	287*	IP Telephony	3+
CIT	295*	Current Topics in Network Operating Systems	VAR+

Changes to Computer Information Technology Network Support AAS

- CIT 279 has been replaced by CIT 284 Implementing Secure Converged Wide-area Network
Students can use either CIT 279 OR CIT 284
- CIT 282 has been replaced by CIT 285 Optimizing Converged Networks
Students can use either CIT 282 OR CIT 285

Approved by Curriculum Committee August, 2007

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CIT 285 Optimizing Converged Networks

Credits: 4

(S)

Prerequisite: CIT 276, CCNA TechPrep, or CCNA certification

CIT 285 Optimizing Converged Networks is one of four courses leading to the Cisco Certified Network Professional (CCNP) designation. Optimizing Converged networks introduces students to optimizing and providing effective QoS techniques in converged networks operating voice, wireless and security applications. Topics include implementing a VOIP network, implementing QoS on converged networks, specific IP QoS mechanisms for implementing the DiffServ QoS model, AutoQoS, wireless security and basic wireless management.

CIT 282 will be replaced by CIT 285

Approved by Curriculum Committee, August 2007

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COMPUTER SERVER ADMINISTRATION
CERTIFICATE OF APPLIED SCIENCE DEGREE
APPROVED BY BOR NOVEMBER, 2007

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 understand 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.

Required General Education Courses

Course No.	Course Title	Credits
ENGL 121**	Composition I	3+
COMM 135	Interpersonal Communication	3+
MATH 108**	Algebra for College Students OR	
MATH 130**	Pre-calculus Algebra OR	
MATH 150 **	Math for Liberal Arts OR	
MATH 181**	Calculus	3-4+
		Subtotal 9-10

Required Technical Courses

Course No.	Course Title	Credits
CIT 111	Introduction to Computers	3+
CIT 166*	Computer Operating Systems	4+
CIT 210*	Network Operating System 1	2+
CIT 211*	Network Operating System 2	2+
CIT 212*	Network Operating System 3	2+
CIT 213*	Network Operating System 4	2+
CIT 215*	Network Operating System 5	2+
CIT 216*	Network Operating System 6	2+
CIT 126*	Networking Fundamentals	3+
CIT 176*	Routers and Routing Basics	3+
CIT 208*	Fundamentals of UNIX/Linux	4+
		Subtotal 29
TOTAL PROGRAM CREDITS – 38-39~		

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

-Many students need preliminary Math, English, and/or Computer courses before enrolling in the program required courses. These courses may increase the total number of program credits. Students should review their Math and English placement scores as well as high school transcripts with an advisor before planning out their full program schedule.

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

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Creative Arts Enterprise Certificate of Applied Science

No classes taught Fall, 2007

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EMT-Intermediate 99

Certificate

The Certificate in EMT-Paramedic has been removed. The College still offers the Associate of Applied Science in EMT-Paramedic (refer to page 62 in the 2007-2008 catalog). The College now offers a Certificate of Applied Science in EMT-Intermediate 99.

APPROVED BY BOR, May 2007

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

Graduates will be prepared to:

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

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

Fall Semester

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

Spring Semester

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

Total Program Credits – 33~

Summer Semester

Student could enter summer semester by taking EMT 137 Basic and/or other courses, completing in three semesters. Students could also enter fall semester as above, but finish the following summer, thereby lowering number of credits per semester. Student actually finishes ambulance internship for I99 courses at end of June.

~Many students need preliminary Math, English, and/or Computer courses before enrolling in the program required courses. These courses may increase the total number of program credits. Students should review their Math and English placement scores as well as high school transcripts with an advisor before planning out their full program schedule.

Policy on Experiential Learning

Approved by Leadership Team, May 2007

Directly affects the challenge testing on page 6 of the 2007-2008 catalog

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 2.2.

- A. Credit may be granted only for documented learning which ties the prior experience to the theories and data of the relevant academic fields.
- B. Credit may be granted only for documented learning which falls within the regular curricular offerings of the institution.
- C. Credit for prior experiential learning may be granted only at the undergraduate level.
- D. The applicability of Experiential Learning Credit toward specific degree program requirements is subject to departmental/institutional approval.
- E. Experiential Learning Credit will be based on the following evaluation methods.
 - i. Portfolio
 - ii. Challenge Exams
 - iii. Proof of Competency

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

- F. Credit for prior experiential learning should not constitute more than 25% of the credits needed for a degree or certificate.
- G. No assurances are made as to the number of credits to be awarded prior to the completion of the institution's review process.
- H. Credit may be granted only to enrolled students and is to be identified on the student's transcript as credit for prior experiential learning.
- I. Credit for prior experiential learning cannot duplicate other credit awarded.
- J. Experiential Credit will be treated in the same way as transfer credit. A "P" (pass) will be

- assigned, and it will not count toward the students' GPA.
- K. Materials and documents submitted for consideration of credit for experiential learning
- L. must comply with all MSU-Great Falls and Montana University System Policies. No experiential learning credit is guaranteed.
- M. Credits granted for experiential learning at MSUGF COT may transfer to other institutions. Students should check with the transfer institution regarding transferability.
- N. All submitted materials and documents become part of the students' academic record and will not be returned.
- O. Credit awarded for experiential learning will become part of the students' academic transcript.
- P. The student is responsible for providing the appropriate documentation as required by the guidelines and/or criteria established by the faculty member, program director, or department chair for the award of credit of experiential learning.
- Q. Students will be assessed an experiential learning fee for each course substituted through the award of Experiential Learning Credit. This fee will be 1/3 of the cost for the tuition of the course had the student enrolled in it through traditional means.
- R. Experiential learning credits do not count towards enrollments in evaluating financial aid status.

Contact instructor, program director or department chair for help with the process & to obtain the correct paperwork.

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HEALTH INFORMATION TECHNOLOGY COURSE DESCRIPTION CHANGES

HI 132 HEALTH DATA CONTENT AND STRUCTURE

Credits: 3 (F, S, SU)

Prerequisites or Co-requisites: AH 185, BIO 127

This course provides orientation to the health information department and its organization interrelationships in healthcare facilities. This course also covers the content and format of the health record (both conventional and alternative formats), quantitative and qualitative analysis of the record according to regulatory and accreditation standards, numbering, filing, retention, storage, and destruction of records. Application will include real health records and exposure to health record management software.

HI 156 LEGAL AND REGULATORY ASPECTS OF HEALTHCARE

Credits: 3 (S only)

Prerequisites: ENGL 119 or higher

This course covers basic knowledge of the legal, regulatory, and ethical aspects of healthcare including: doctrines, principles, and processes of civil law; state licensure and national accreditation standards; and professional requirements for personal liability, confidentiality, and documentation of the health record. Application will be achieved using extensive discussion and case studies designed to approximate real life situations.

HI 237 CPT CODING

Credits: 3 (S, SU)

Prerequisites: HI 236 or concurrent enrollment

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 soft ware. This coding class requires hands-on coding skills, and knowledge of basic use of applicable coding books are an expectation.

HI 245 Simulated Lab – Practicum Preparation

Credits: 2 (F)

Prerequisite: Completion or concurrent enrollment of all courses in first 4 semesters of the HIT program and approval by the program director.

Lab based course where students utilize the AHIMA virtual lab. The virtual lab exposes students to software utilized in Health Information Technology. Professionalism in the workplace will also be covered. This is a preparatory course for the HIT practicum HI 270.

HI 257 INTERMEDIATE CPT CODING

Credits: 3 (SU)

Prerequisite: HI 236, HI 237

Basic understanding of the CPT, ICD-CM, coding principles should already be established. This advanced course will cover medical necessity, coding issues for specific body systems, and for general conditions. Intensive coding application will be achieved through the use of real health records, case studies, and scenarios. Application will include the use of encoder soft ware. 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 are an expectation.

HI 270 PROFESSIONAL PRACTICE EXPERIENCE

Credits: 2

(S, SU)

Prerequisite: Completion of preceding courses and approval of program director.

Students in this course will gain professional practice experience in their program of study. Students create written records of their experiences and will complete assigned projects as indicated in their Professional Practice Experience Manual. This course is scheduled for 80 hours off campus. Each student will be responsible for their own transportation to and from the health care facility and any necessary living expenses.

HI 270 is replacing HI 150, HI 290 & OO 290

Approved by ASCC August, 2007

HI 292 TOPICS IN HEALTH INFORMATION TECHNOLOGY

Credits: 3

(S only)

Prerequisite or Co-requisites: **HI 270** and/or completion of all courses in first 4 semesters of the HIT program.

The course provides a forum for students to prepare for the Registered Health Information Technician (RHIT) national examination sponsored through AHIMA. Reviewing and integrating new knowledge, regulations, and standards in the field of health information technology will be achieved. Guidance on the completion of job applications, preparing a resume, writing cover and follow-up letters, and job interviews (as both applicant and interviewer) are studied and practiced.

HI 295 OVERVIEW OF HEALTH INFORMATICS SYSTEMS

Credits: 4

(F only)

Suggested Prerequisites: AH 185, CIT 110, second semester or greater in Health Care Program.

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, soft ware, networks, and telecommunications. Furthermore, this course will provide an understanding of technology's role in healthcare. The course will emphasize the intellectual use of information strategic planning, decision support, program management, high quality patient care, and continuous quality improvement. Application will be done through the use of health record management soft ware and word processing application programs.

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MEDICAL BILLING SPECIALIST

CERTIFICATE OF APPLIED SCIENCE

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. The Medical Billing Specialist Program prepares students with the knowledge and technical skills necessary to perform the duties of a medical billing specialist in a variety of health care settings.

Outcomes: Graduates are prepared to:

- Communicate effectively in both oral and written communication.
- Use the appropriate software and hardware for applications in the business office.
- Manage the information needed for successful operation of the business.
- Apply interpersonal relations concepts and techniques to personal and professional situations.
- Understand and apply mathematical concepts and models.
- Solve billing problems by applying business principles, communication standards, and office management skills.

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

Estimated Program Cost:

Tuition and Fees	\$4473
Application Fee	30
Lab Fees	35
Books/Supplies	<u>1700</u>
	\$6238

REQUIRED SKILL

OO 107 Keyboarding Basics or Challenge Exam
CIT 110 Introduction to Computers or Challenge Exam
Health Science Orientation will be required

FALL SEMESTER

Course	No.	Title	Credits
AH	185	Basic Medical Terminology	3
BIO	127	Anatomy and Physiology I for non-clinical major	4
ENGL	121**	Composition I	3
HI	132*	Health Data Content and Structure	3
OO	111*	Fund of Health Insurance	<u>4</u>
		Subtotal	17

SPRING SEMESTER

Course	No.	Title	Credits
AH	201*	Medical Science	3
HI	156*	Legal & Regulatory Aspects of Healthcare	3
HI	236*	ICD Coding	3
MATH	---**	103 or Higher	4
OO	112*	Adv Health Insurance Tech	3
PSY	101	General Psychology OR	
SOC	111	Introduction to Sociology	<u>3</u>
		Subtotal	19

SUMMER SEMESTER

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

TOTAL PROGRAM CREDITS – 42~

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



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

Changes to Medical Billing Specialist

- OO 290 – Insurance Internship was listed incorrectly. It should be:
OO 290 – Insurance Internship for 2 credits, not 3 credits
- OO290 is being replaced by HI 270 (see course description) **Approved by ASCC August 2007**

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MEDICAL BILLING AND CODING SPECIALIST
ASSOCIATE OF APPLIED SCIENCE
APPROVED BY BOR NOVEMBER, 2007

ADVISOR: LYNN WARD

Prerequisite Skills:

Proof of computer literacy and keyboarding competency (Program advisor to approve through student competency evidenced by high school or college courses, or skills assessment test).
 Health Science Orientation -online completion required

FALL SEMESTER

Course No.	Title	Credits
AH 101	Healthcare Delivery	3
AH 185	Basic Medical Terminology	3
BIO 127	A&P I for Nonclinical Majors	4
MATH 103** or higher	Introductory Algebra	3-4
		Subtotal 14-15

SPRING SEMESTER

Course No.	Title	Credits
AH 194	Basic Pharmaceuticals	1
AH 201*	Medical Science	3
BIO 128*	A&P II for Nonclinical Majors	4
HI 236*	ICD Coding	3
HI 237*	CPT Coding	3
		Subtotal 14

SUMMER SEMESTER

Course No.*	Title	Credits
HI 256*	Intermediate ICD	3
HI 257*	Intermediate CPT	3
		Subtotal 6

FALL SEMESTER

Course No.	Title	Credits
PSY 101	General Psychology OR	3
SOC 111	Introduction to Sociology	
HI 132*	Health Data Content	3
00 111*	Fundamentals of Insurance	4
HI 295*	Overview of Health Informatics	4
		Subtotal 14

SPRING SEMESTER

Course No.	Title	Credits
HI 156*	Legal & Regulatory	3
00 112*	Advanced Insurance	3
ENG 124**	Business & Professional Comm.	3
00 290*	Billing/Coding PPE	2
00 291*	Billing/Coding Capstone	2
		Subtotal 13

TOTAL PROGRAM CREDITS -61-62-

-Many students need preliminary Math, English, and/or Computer courses before enrolling in the program required courses. These courses may increase the total number of program credits. Students should review their Math and English placement scores as well as high school transcripts with an advisor before planning out their full program schedule.

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

Network Infrastructure Certificate of Applied Science

REPLACING CERTIFICATE IN NETWORK TECHNOLOGY on page 45 in the 2007-2008 catalog

APPROVED by BOR, May 2007

Advisor: Bruce Gottwig

Program Outcomes:

Upon the completion of the Networking Infrastructure Certificate students should be 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.

Required General Education Courses

Course #	Course Title	Credits
ENGL 121**+	Composition I	3
COM 135**+	Interpersonal Communication	3
MATH 108**+	Algebra for College Students OR	
MATH 130**+	Pre-calculus Algebra OR	
MATH 150 **+	Math for Liberal Arts OR	
MATH 181**+	Calculus	3/4
	Subtotal	9-10

Required Technical Core Courses

Course #	Course Title	Credits
CIT 111+	Introduction to Computers	3
CIT 125**+	Fund of Voice and Data Cabling	3
CIT 126*+	Networking Fundamentals	3
CIT 176*+	Routers and Routing Basics	3
CIT 226*+	Switching Basics & Int. Routing	3
CIT 276*+	Introduction to WAN Technologies	3
CIT 272*+	PC Troubleshooting/Maintenance	3
	Subtotal	21
		Total Program Credits 30-31

+ A grade of "C-" or above required for graduation

* Indicates prerequisites needed

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

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OFFICE SUPPORT CERTIFICATE OF APPLIED SCIENCE

**ADVISOR: DONNA EAKMAN
DEBORAH NEWTON**

The one-year certificate program in Office Support prepares students for entry level positions in a variety of office setting. The program emphasizes skills in oral and written communications, word processing, ten-key, records management, keyboarding and document formatting. Students may emphasize areas in general office skills, the legal office, or the medical office by selecting appropriate elective courses. All courses transfer into the AAS degree in Office Administration and Technology.

Outcomes: Graduates are prepared to:

- communicate effectively in both oral and written communication;
- use the appropriate software and hardware for applications in the business office;
- manage the information needed for successful operation of the business;
- apply interpersonal relations concepts and techniques to personal and professional situations;
- understand and apply mathematical concepts and models;
- solve business problems by applying business principles, communication standards, and office management skills.

Estimated Program Cost:

Tuition and Fees	\$2982
Application Fee	30
Books/Supplies	<u>900</u>
	\$3912

REQUIRED SKILLS

OO 107 Keyboarding Basics or Challenge exam

FALL SEMESTER

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3+
ENGL	124**	Business & Professional Comm	3+
MATH	104**	Business Math	4+
OO	108*	Advanced Keyboarding	3+
OO	179	Records Management	3+
		Elective	<u>3+</u>
		Subtotal	19

SPRING SEMESTER

Course	No.	Title	Credits
COMM	135	Interpersonal Communication	3+
OO	173*	Computer Calculators	1+
OO	220	Resumes	1+
OO	221	Interviewing for Jobs	1+
OO	265*	WordPerfect OR	
OO	266*	Microsoft Word	3+
OO	295*	Admin Office Procedures	3+
		Elective	<u>3+</u>
		Subtotal	12

ELECTIVES –

SELECT TWO FROM THE FOLLOWING (CONSULT ADVISOR)

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3+
AH	185	Basic Medical Terminology	3+
OO	111*	Fund of Health Insurance	4+
OO	180	Legal Studies	3+
OO	260*	Machine Transcription	3+

TOTAL PROGRAM CREDITS – 34-35~

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

Changes to Office Support

- OO 180 – Legal Studies and is 4 credits, not 3.
- There are no longer any options in the degree.

+ A grade of "C-" or above required for graduation

* Indicates prerequisites needed

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

OFFICE TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISORS: DONNA EAKMAN

DEBORAH NEWTON

The Office Administration and Technology program is designed to prepare students with the technical skills and knowledge necessary for careers in a variety of business and office settings. The program emphasizes in-depth training in a wide variety of office skills, including computer technology, oral and written communication skills, transcription, records management, keyboarding and document formatting. Students may choose to specialize in executive, legal, or medical specialty areas.

Outcomes: Graduates are prepared to:

- communicate effectively in both oral and written communication;
- use the appropriate software and hardware for applications in the business office;
- manage the information needed for successful operation of the business;
- apply interpersonal relations concepts and techniques to personal and professional situations;
- understand and apply mathematical concepts and models;
- solve business problems by applying business principles, communication standards, and office management skills.

Estimated Program Cost:

Tuition and Fees	\$7455
Application Fee	30
Books/Supplies	<u>1550</u>
	\$9035

REQUIRED COURSES:

OO 107 Keyboarding Basics or Challenge Exam

FALL SEMESTER

Course	No.	Title	Credits
CIT	110	Introduction to Computers	3+
ENGL	121**	Composition I	3+
MATH	104**	Business Mathematics	4+
OO	179	Records Management	3+

Executive or Legal Specialty:

OO 180 Legal Studies I 3+

OR

Medical Specialty:

AH 185 Basic Medical Terminology	3+
Subtotal	16

SPRING SEMESTER

Course	No.	Title	Credits
BUS	106	Intro to Business	3+
OO	108*	Advanced Keyboarding	3+
OO	260*	Machine Transcription	3+
OO	266*	Microsoft Word	3+

Executive Specialty:

CIT 205* Database Management I 3+

OR

Legal Specialty:

See suggested electives to left			
OR			
<i>Medical Specialty:</i>			
BIO 127 Anatomy & Physiology I for non-clinical majors	4+		
Subtotal	15-16		

+ A grade of "C-" or above required for graduation

* Indicates prerequisites needed

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

SUMMER SEMESTER

Course	No.	Title	Credits
<i>Medical Specialty:</i>			
OO	111*	Fund of Health Insurance	4+

FALL SEMESTER

Course	No.	Title	Credits
ACCT	101	Accounting Procedures I	3+
CIT	120*	Internet Essentials	2+
CIT	140*	Presentation Fundamentals	1+
COMM	135	Interpersonal Communication	3+
ENGL	124**	Business & Professional Comm	3+

Executive or Legal Specialty:

BUS 255* Legal Environment 3+

OR

Medical Specialty:

HI 237* CPT Coding	3
Subtotal	15

SPRING SEMESTER

Course	No.	Title	Credits
CIT	220*	Electronic Spreadsheets	3+
OO	173*	Computer Calculators	1+
OO	220	Resumes	1+
OO	221	Interviewing for Jobs	1+
OO	295*	Admin Office Procedures	3+

Executive Specialty:

OO 265* WordPerfect	3+
CIT 280* Desktop Publishing	3+

OR

Legal Specialty:

OO 265* WordPerfect	3+
OO 287* Legal Transcription	4+

OR

Medical Specialty:

AH 201* Medical Science	3+
OO 255* Med Transcription I	3+
Subtotal	15-16

TOTAL CREDITS:

EXECUTIVE SPECIALTY - 61~

LEGAL SPECIALTY - 61~

MEDICAL SPECIALTY - 66~

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

Changes to Program

- Program Name has been changed to:
Office Administration and Technology
By BOR, May 2007
- OO 180 – Legal Studies I renamed to Legal Studies
- OO 180 – Legal Studies is 4 credits, not 3.
- HI 237 – CPT Coding requires a grade of "C-" or above for graduation
- There are no longer any options in the degree.
- OO 181 – Legal Studies II removed from program and is no longer offered at the College.
Suggested Electives to replace it include: Desktop Publishing, Medical Terminology, Accounting Procedures II, and Payroll Accounting

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OFFICE TECHNOLOGY COURSE DESCRIPTION CHANGES

OO 180 LEGAL STUDIES

Credits: 4 (F)

Terms commonly used in the legal profession are introduced. Students will learn to define the terms and use them in legal context. In addition, students will be introduced to the legal field through the study of general law office procedures, ethics, court system and structure, civil litigation, and criminal law, and legal document format. This course is also designed to equip students with knowledge of procedures and with the basic attitudes, skills, and ethics required of a legal office employee.

Approved by ASCC November, 2007

OO 181 LEGAL STUDIES II

Credits: 4 (S)

**NO LONGER OFFERED
REMOVED FROM PROGRAM**

ethics required of a legal office employee.

Approved by ASCC November, 2007

OO 290 INSURANCE INTERNSHIP

Credits: 2 (SU only)

Prerequisites: Satisfactory completion of all courses in the program and/or consent of the Program director.

Students will gain practical experience in insurance billing by working in a variety of medical facilities where they will have the opportunity to apply concepts studied in the medical billing curriculum. Facilities will include dental and medical offices, health insurance companies, hospitals, and independent billing companies.

Approved by ASCC August, 2007

HI 270 PROFESSIONAL PRACTICE EXPERIENCE

Credits: 2 (S, SU)

Prerequisite: Completion of preceding courses and approval of program director.

Students in this course will gain professional practice experience in their program of study. Students create written records of their experiences and will complete assigned projects as indicated in their Professional Practice Experience Manual. This course is scheduled for 80 hours off campus. Each student will be responsible for their own transportation to and from the health care facility and any necessary living expenses.

HI 270 is replacing HI 150, HI 290 & OO 290

Approved by ASCC August, 2007

OO 287 LEGAL TRANSCRIPTION

Credits: 4

(S)

Prerequisite: OO 180; OO 260 or concurrent; OO 266 or concurrent, instructor approval.

Students prepare legal documents and correspondence from machine dictation. Along with study in the areas of civil litigation, family law, estate planning, probate, corporations, and real estate, emphasis is given to competencies in transcribing legal documents with correct formatting, punctuation, spelling, and legal terminology.

Approved by ASCC November, 2007

OO 291 BILLING/CODING CAPSTONE

Credits: 2

Utilizing information acquired in the curriculum, students will demonstrate a working knowledge of concepts, processes and procedures encountered in the physician office management setting. This will include scheduling, end-of-month reporting, managing accounts, abstracting from patient records, coding, and reimbursement as well as exposure to software utilized in the medical office setting. Professionalism and HIPAA will be reviewed.

Approved by ASCC November, 2007

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NEW PROFESIONAL CERTIFICATE OPTIONS

All approved by ASCC, May 2007

CCNA PREPARATION CERTIFICATE

The CCNA Preparation Certificate will include the completion of the following courses:

CIT 111	Introduction to Computers for Tech Majors	3 credits
CIT 126	Networking Fundamentals	3 credits
CIT 176	Routers & Routing Basics	3 credits
CIT 226	Switching Basics & Intermediate Routing	3 credits
CIT 276	WAN Technologies	3 credits

CCNP PREPARATION CERTIFICATE

The CCNP Preparation Certificate will include the completion of the following courses:

CIT 278	Advanced Routing	4 credits
CIT 279	Remote Access	4 credits
CIT 281	Multilayer Switching	4 credits
CIT 282	Network Troubleshooting	4 credits

MOS PREPARATION CERTIFICATE

The MOS Preparation Certificate will include the completion of the following courses:

CIT 110	Introduction to Computers OR	
CIT 111	Introduction to Computers for Tech Majors	3 credits
CIT 120	Internet Essentials	2 credits
OO 266	Microsoft Word	3 credits
CIT 205	Database Management	3 credits
CIT 220	Electronic Spreadsheets	3 credits
CIT 140	Presentation Fundamentals	1 credit

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Division of Outreach & Workforce Development

PROFESSIONAL AND CONTINUING EDUCATION

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

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

CENTER FOR EXTENDED STUDIES

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

PROFESSIONAL CERTIFICATIONS

Note: All professional certifications are under review. Contact the Outreach Department at (406) 771.4303 for more information.

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



BUSINESS MANAGEMENT

Course No.	Title	
BUS 106	Introduction to Business	
BUS 255*	Legal Environment	
BUS 240*	Advertising	
BUS 230*	Management	
BUS 235*	Marketing	
COMM 130	Public Speaking OR	
COMM 135	Interpersonal Communication	
	Total	

COMPUTERIZED ACCOUNTING

Course	No.	Title
ACCT	101	Accounting Procedures I
ACCT	102*	Accounting Procedures II
ACCT	190*	Payroll Accounting
CIT	110	Introduction to Computer
CIT	220*	Electronic Spreadsheets
MATH	104**	Business Mathematics
OO	173	Computer Calculators
		Total

LEGAL INFORMATION

Course	No.	Title
CIT	110	Introduction to Computer
ENGL	120**	Introduction to Composition
ENGL	121**	Composition I
OO	107	Keyboarding Basics OR
OO	108*	Adv Keyboarding and Formatting
OO	180*	Legal Studies I
OO	260*	Machine Transcription
OO	265*	WordPerfect OR
OO	266*	Microsoft Word
OO	287*	Legal Transcription
		Total

MICROCOMPUTER APPLICATIONS

Course	No.	Title
CIT	110	Introduction to Computer
CIT	120*	Internet Essentials
CIT	166*	Computer Operating Systems
CIT	205*	Database Management
CIT	220*	Electronic Spreadsheets
MATH	103**	Introductory Algebra
OO	265*	WordPerfect OR
OO	266*	Microsoft Word
		Total

MICROCOMPUTER WORD PROCESSING

Course	No.	Title
CIT	110	Introduction to Computer
CIT	120	Internet Essentials
ENGL	121**	Composition I
OO	107	Keyboarding Basics
OO	108*	Advanced Keyboarding and Formatting
OO	265*	WordPerfect OR
OO	266*	Microsoft Word
OO	295*	Administrative Office Procedures
		Total

PARAMEDIC

Course	No.	Title
AH	140*	Pharmacology
AH	145	Intro to Medical Terms
EMS	102	Fundamentals of Adv Care
EMS	105	Paramedic I
EMS	110	Paramedic I/II Skills Lab
EMS	115	Paramedic II
EMS	120	Paramedic I/II Clinical
EMS	145	ACLS Preparation
EMS	146	PALS Preparation

No Longer Offered

EMS	148	Pre-Hospital Trauma Life Sup	1
EMS	205	Paramedic	3
EMS	210	Paramedic Skills Lab	2
EMS	220	Paramedic Clinical/Field	4
EMS	225	Paramedic	3
		Total	32

Note: This professional certification is primarily aimed at firefighters, who do not request or require a degree or certification.

PROFESSIONAL COMMUNICATION

Course	No.	Title	Credits
COMM	130	Public Speaking	3
COMM	135	Interpersonal Communication	3
CIT	110	Introduction to Computers	3
ENGL	121**	Composition	3
ENGL	124*	Business of Comm OR	3
ENGL	228*	Strategic Business Comm	3
OO	107	Keyboard Basics OR	3
OO	108*	Advanced Keyboarding and Formatting	3
OO	265*	Word Processing OR	3
OO	266*	Microsoft Word	3
		Total	24

No Longer Offered

~ INDUSTRY STANDARD CERTIFICATIONS

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

COMPTIA NETWORK+

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

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

COMPTIA A+

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

CISCO CERTIFIED NETWORKING ASSOCIATE (CCNA)

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

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

CISCO CERTIFIED NETWORKING PROFESSIONAL (CCNP)

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

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

MICROSOFT MCP

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

MICROSOFT OFFICE SPECIALIST MICROSOFT WORD

Course	No.	Title	Credits
OO	266*	Microsoft Word	3

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

MICROSOFT OFFICE SPECIALIST MICROSOFT POWERPOINT

Course	No.	Title	Credits
CIT	140*	Presentation Fundamentals	1

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

MICROSOFT OFFICE SPECIALIST MICROSOFT EXCEL

Course	No.	Title	Credits
CIT	220*	Electronic Spreadsheets	3

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

MICROSOFT OFFICE SPECIALIST MICROSOFT ACCESS

Course	No.	Title	Credits
CIT	205*	Database Management	3

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

MICROSOFT CERTIFIED SYSTEM ADMINISTRATOR (MCSA)

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

The MCSA is a new Microsoft Exam that combines Microsoft industry examinations with CompTIA certification examinations. Please inquire with the Computer Technology faculty for specifics on the certification and for a schedule of semester classes to meet your certification and educational goals. Not all courses are offered every semester.

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

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

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

PTA Accreditation Status Reinstated:

The Physical Therapist Assistant Program at Montana State University - Great Falls College of Technology received full initial accreditation from the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA) in December 1997. The program hosted an on-site visit in October 2002, and in April 2003 CAPTE voted to fully re-accredit the PTA Program for a ten-year period lasting until 2012. However, as the program went into a state of moratorium, MSU – Great Falls College of Technology filed an application for approval of substantive change to reinstate accreditation. The PTA program has achieved accreditation.

CAPTE voted to reinstate accreditation status of the Physical Therapist Assistant Program at Montana State University - Great Falls College of Technology as of May 16, 2007. A Progress Report must be submitted to CAPTE by September 4, 2007 documenting progress toward compliance in the areas specified in the Summary of Action from CAPTE of the APTA. An on-site review visit to the program will occur after the submission of the Progress Report and before the first class of students in the reinstated program graduate. PTA programs are required by the US Department of Education to come into compliance with all evaluative criteria within two years.

CAPTE can be contacted as follows: Commission on Accreditation in Physical Therapy Education, 1111 North Fairfax Street, Alexandria, Virginia 22314, accreditation@apta.org, (703) 684-2782 or (703) 706- 3245.

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PRACTICAL NURSE

ASSOCIATE OF APPLIED SCIENCE

APPROVED BY BOR MAY 2007 – NO CURRICULAR CHANGES

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 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:

- Practice nursing skills effectively.
- Communicate professionally with all medical and supportive staff.
- Use technology in patient care.
- 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.

The Practical Nurse program is a limited enrollment program. Interested students must apply for entry into the program by contacting the advisor for an application packet. The length of the program is three consecutive semesters. Accepted students will be required to provide proof of Health Care Provider CPR certification, negative Tuberculosis test, and provide a physician's authorization before the beginning of the fall semester. Computer skills are highly recommended.

The Hepatitis B immunization series is strongly recommended before entrance into the program. A student may be denied access to clinical rotations without an adequate Hepatitis B titer. Students having religious or personal conflicts against receiving Hepatitis B vaccine must sign a release form.

Estimated Program Cost:

Tuition and Fees	\$7455
Application Fee	30
Insurance	24
Lab Fees	230
Books	2250
Uniforms	<u>225</u>
	\$10214

PREREQUISITE COURSEWORK

The following courses must be completed or be in progress prior to admission into the Practical Nurse Program. All prerequisite course work must be completed with a minimum grade of "C-" in each course and a minimum cumulative GPA in prerequisite course work of 2.0. Grades in prerequisite courses are a major factor in ranking applications for program acceptance.

FIRST SEMESTER

Course	No.	Title	Credits
BIO	213	Anatomy & Physiology I/Lab	4
CHM	111*	Inorganic Chemistry/ Lab	4
MATH	161**	Algebra w/ Science Applications	3
NURS	100	Introduction to Nursing	<u>1</u>
		Subtotal	12

SECOND SEMESTER

Course	No.	Title	Credits
AH	219*	Nutrition & Diet Therapy	2
BIO	214*	Anatomy & Physiology II/Lab	4
ENGL	121**	Composition I	3
PSY	101	General Psychology	<u>3</u>
		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

The courses listed below are required in the program of study for the Certificate of Applied Science in Practical Nursing. The courses are offered at MSU Great Falls College of Technology in the following sequence:

FALL SEMESTER

Course	No.	Title	Credits
NURS	140*	Pharmacology	3
NURS	150*	Fundamentals of Nursing	7
NURS	250*	Gerontology	<u>2</u>
		Subtotal	12

SPRING SEMESTER

Course	No.	Title	Credits
NURS	260*	Adult Nursing	7
NURS	270*	Maternal Child Nursing	3
NURS	280*	Mental Health Nursing	<u>2</u>
		Subtotal	12

SUMMER TERM

Course	No.	Title	Credits
NURS	290*	Nursing Leadership	<u>2</u>
		Subtotal	2

SUGGESTED ELECTIVE

Course	No.	Title	Credits
AH	120*	IV Therapy	1

*This class is a highly recommended addition to the standard nursing curriculum. It will provide you with IV certification which many employers value or require for employment.

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.

TOTAL PROGRAM CREDITS - 51~

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

+ A grade of "C-" or above required for graduation

*indicates prerequisites needed

**placement in courses is determined by admissions assessment

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RADIOLOGIC TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

ADVISORS: GREG PAULASKIS
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 presently been acquired through Northwest Association Commission on Colleges. This regional accrediting agency is the organization that accredits MSU Great Falls CoT.

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. Computer skills, Medical Terminology, Physics, and Chemistry are highly recommended.

Estimated Program Cost:

Tuition and Fees	\$8946
Application Fee	30
Insurance	75
Books/Supplies	1500
	<u>\$10551</u>

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 a College Degree by taking all of the prerequisite courses listed below along with COMM 135, Interpersonal Communication. 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
BIO	213	Anatomy & Physiology I/Lab	4
BIO	214*	Anatomy & Physiology II/Lab	4
ENGL	121**	Composition I	3
MATH	161**	Algebra w/ Science Applications	3
		Subtotal	14

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.

FALL SEMESTER

Course	No.	Title	Credits
RAD	105	Intro to Radiologic Technology	2
RAD	110	Radiographic Procedures I	2
RAD	115	Radiographic Principles I	3
RAD	120	Radiobiology/Radiation Protection	3
RAD	140	Clinical Education I	6
		Subtotal	16

SPRING SEMESTER

Course	No.	Title	Credits
RAD	111*	Radiographic Procedures II	3
RAD	116*	Radiographic Principles II	3
RAD	130	Patient Care in Radiology	2
RAD	141*	Clinical Education II	6
		Subtotal	14

SUMMER SEMESTER

Course	No.	Title	Credits
RAD	240*	Radiologic Internship	3
		Subtotal	3

FALL SEMESTER

Course	No.	Title	Credits
RAD	210*	Radiographic Procedures III	4
RAD	220*	Radiographic Principles III	2
RAD	241*	Clinical Education III	6
		Subtotal	12

SPRING SEMESTER

Course	No.	Title	Credits
COMM	135	Interpersonal Communications	3
RAD	215*	Radiographic Procedures IV	2
RAD	242*	Clinical Education IV	6
RAD	270	Registry Review	2
		Subtotal	13

TOTAL PROGRAM CREDITS - 72~

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

07-08 PROGRAM CHANGES

- BIO 213 & 214 have been replaced by BIO 202 (see new description)
- RAD 116's number was changed to RAD 117 (no course description change)

Approved by ASCC, October 2007

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RADIOLOGIC TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE

(EFFECTIVE FOR THE 2008-2009 CATALOG)

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, PET (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 presently been acquired through Northwest Association Commission on Colleges. This regional accrediting agency is the organization that accredits MSU Great Falls CoT.

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. Computer skills, Medical Terminology, Physics, and Chemistry are highly recommended.

Estimated Program Cost:

Tuition and Fees	\$8946
Application Fee	30
Insurance	75
Books/Supplies	<u>1500</u>
	\$10551

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 a College Degree by taking all of the prerequisite courses listed below along with COMM 135, Interpersonal Communication. For more information contact Admissions or the Program Director of the Radiologic Technology Program.

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
BIO	202	Human Anatomy for RAD Tech	3
AH	145	Intro to Medical Terminology	1
ENGL	121**	Composition I	3
MATH	103*	Introductory Algebra <i>or higher</i>	3-4
COMM 135		Interpersonal Communication	3
		Subtotal	13-14

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.

FALL SEMESTER

Course	No.	Title	Credits
RAD	105	Intro to Radiologic Technology	2
RAD	110	Radiographic Procedures I	2
RAD	115	Radiographic Principles I	3
RAD	120	Radiobiology/Radiation Protection	3
RAD	140	Clinical Education I	<u>5</u>
		Subtotal	15

SPRING SEMESTER

Course	No.	Title	Credits
RAD	111*	Radiographic Procedures II	3
RAD	117	Radiographic Principles II	3
RAD	130	Patient Care in Radiology	2
RAD	141*	Clinical Education II	<u>6</u>
		Subtotal	14

SUMMER SEMESTER

Course	No.	Title	Credits
RAD	240*	Radiologic Internship	<u>5</u>
		Subtotal	5

FALL SEMESTER

Course	No.	Title	Credits
RAD	210*	Radiographic Procedures III	4
RAD	220*	Radiographic Principles III	2
RAD	241*	Clinical Education III	<u>6</u>
		Subtotal	12

SPRING SEMESTER

Course	No.	Title	Credits
RAD	215*	Radiographic Procedures IV	2
RAD	242*	Clinical Education IV	8
RAD	270	Registry Review	<u>2</u>
		Subtotal	13

TOTAL PROGRAM CREDITS – 71 – 72~

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

+ A grade of "C" or above required for graduation *indicates prerequisites needed **placement in courses is determined by admissions assessment

RAD 117 Radiographic Principles II

3 credits

(S)

No change to course description

Approved by ASCC October, 2007

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RESIDENCY REQUIREMENTS

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

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

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.

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

Surgical Technology

Associate of Applied Science replacing Certificate on page 72 in 2007-2008 catalog

APPROVED BY BOR MAY 2007 – MAJOR CURRICULAR CHANGES

ADVISOR: SANDRA ONDLER

Summer Semester (Prerequisite Courses)

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>
BIO 107	Fundamentals of Human Bio/Lab	4
BIO 213	A&P I with lab	4
	Subtotal	8

Fall Semester (Prerequisite Courses)

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>
PSY 101	Introduction to Psychology OR	
COMM 135	Interpersonal Communication	3
AH 145	Introduction to Medical Terminology	1
BIO 214*	A&P II with lab	4
MATH 103**	Introductory Algebra	4
ENGL 119**	Intro to Composition OR	
ENGL 124**	Business & Professional Communication	3
	Subtotal	15

Contact Program advisor to find out how to apply & get accepted into the program.

Spring Semester (After acceptance into the program)

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>
PHIL 238	Medical Ethics	3
BIO 280*	Microbiology with lab	4
SURG 101 T	Introduction to Safe Patient Care	3
SURG 109	Surgical Procedures Lab I	3
SURG 154 T	Surgical Pharmacology	3
	Subtotal	16

Fall Semester

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>
SURG 200 T	Operating Room Techniques	5
SURG 201 T	Surgical Procedures I	4
SURG 110	Surgical Procedures Lab II	3
SURG 192	Clinical Experience I	4
	Subtotal	16

Spring Semester

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>
SURG 205 T	Surgical Procedures II	5
SURG 193	Clinical Experience II	5
SURG 194*	Internship	5
	Subtotal	15

Total Program Credits – 70 ~

(Courses marked with a **T** are taught online by UM-COT.)

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

+ A grade of "C-" or above required for graduation

*indicates prerequisites needed

**placement in courses is determined by admissions assessment

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SURG 101 Introduction to Safe Patient Care

3 credits (S)

Course taught online by University of Montana – College of Technology

Prerequisite: Acceptance into Surg Tech program

Provides an orientation to the scrub and circulatory roles of the surgical technologist in the preoperative, intraoperative and postoperative periods. Entry level skills and theories are emphasized. (UM COT 07-08 catalog)

SURG 154 Surgical Pharmacology

3 credits (S)

Course taught online by University of Montana – College of Technology

Prerequisite: Acceptance into Surg Tech program

Basic overview of the medications that are commonly used before, during and after surgery. (UM COT 07-08 catalog)

SURG 200 Operating Room Techniques

5 credits (F)

Course taught online by University of Montana – College of Technology

Prerequisite: Completion of 1st semester of Surg Tech program classes

Focus on the scrub and circulator roles of the surgical technologist in the preoperative, intraoperative and postoperative periods. More complex skills and theories; impact of new technologies in the 21st century operating room. (UM COT 07-08 catalog)

SURG 201 Surgical Procedures I

4 credits (F)

Course taught online by University of Montana – College of Technology

Prerequisite: Completion of 1st semester of Surg Tech program classes

A study of surgical procedures following the patient through the preoperative, intraoperative, and postoperative stages of specific surgical specialties. (UM COT 07-08 catalog)

SURG 205 Surgical Procedures II

5 credits (S)

Course taught online by University of Montana – College of Technology

Prerequisite: Completion of 1st & 2nd semester of Surg Tech program classes

A study of surgical procedures following the patient through the preoperative, intraoperative and post-operative stages of CV/thoracic, orthopedic, neurological, and ophthalmic specialties. (UM COT 07-08 catalog)

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TRANSFER FROM OTHER INSTITUTIONS

Effects the credit transfer information found on page 6 of the 2007-2008 Catalog

TRANSFER FROM OTHER INSTITUTIONS

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

- The transferring student must initiate the request for evaluation of credit during the admission procedure by furnishing an official transcript from the transferring institution(s) and the necessary materials, including copies of the appropriate catalog descriptions or course syllabi, to the Admissions & Records Office. Official transcripts must be sent directly by the issuing institution to the following address:
Admissions & Records Office
MSU-Great Falls COT
2100 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.
- 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 have 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 the Admissions/Records Office to receive information on the appeal process. Students may be asked to provide course descriptions and/or syllabi for an appeal.

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