

Applied Computing and Engineering Technology

Xueying Shen, Chairperson

The Department of Applied Computing and Engineering Technology collaborates with business and industry to prepare graduates to compete in and contribute to a diverse and dynamic global society. Students acquire the practical skills necessary to pursue entry-level careers in STEM-related (Science, Technology, Engineering, and Mathematics) occupations. Students engage in experiential learning, embracing technical education, effective communication, problem solving, professionalism, and specific workplace skills. The department promotes lifelong learning to empower students in an ever-changing world. More details on programs available through the department can be found at the Applied Computing and Engineering Technology website. (<http://mc.umt.edu/acet>)

Preparation to Enter Programs

Students entering programs in Applied Computing & Engineering Technology are expected to have basic computing skills and adequate preparation in mathematics.

Undergraduate

- Electronics Technology A.A.S. (p. 363)
- Energy Technology A.A.S. (p. 364)
- Information Technology A.A.S., Network Administration and Security (p. 365)
- Information Technology A.A.S., Programming and App Development (p. 366)

Undergraduate Certificates

- Computer Aided Design Certificate of Applied Science (p. 361)
- Computer Support Certificate of Applied Science (p. 361)
- Electronics Technology Certificate of Applied Science (p. 362)
- Energy Technology Certificate of Applied Science (p. 363)
- Cybersecurity Certificate (p. 362)
- Health Information Technology Certificate (p. 365)
- Energy Auditor Certificate (p. 363)
- Recycling Technology Technical Certificate (p. 367)

Computer Aided Design C.A.S.

Thomas Gallagher, Interim Program Director

The Computer Aided Design (CAD) program offers graduates a pathway into professional careers as technicians in civil, mechanical, and architectural drafting. Other career opportunities exist in geographic information systems, mapping, surveying, and technical design. This one-year program prepares students in mathematics, business, and writing, as well as the following skills:

- graphic communications;
- computer-aided design and modeling systems;
- geographic information systems; and
- surveying.

Graduates emerge with an understanding of how to use computer aided design software to solve real-world graphic communications problems in a team-oriented environment.

Certificate of Applied Science - Computer Aided Design

Missoula College

Degree Specific Credits: 34

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Computer Aided Design Core Certificate Courses	34
Total Hours	34

Computer Aided Design Core Certificate Courses

Rule: All courses are required

Note: WRIT 121 may be substituted for WRIT 101 at the discretion of the program advisor based on future career and educational goals.

BGEN 105S	Introduction to Business	3
CSCI 105	Computer Fluency	3
CSCI 172	Intro to Computer Modeling	3
DDSN 113A	Technical Drafting	3
DDSN 114	Introduction to CAD	3
DDSN 116	3D CAD	3
DDSN 244	GIS Mapping	3
DDSN 245	Civil Drafting	4
M 121	College Algebra	3
SRVY 230	Intro to Srvy for Engineers	3
WRIT 101	College Writing I	3
or WRIT 121	Intro to Technical Writing	
Total Hours		34

Minimum Required Grade: C-

Computer Support C.A.S.

Thomas Gallagher, Program Director

Computer Support is a 31-credit certificate program that prepares students for entry-level positions in the computing field. Required coursework includes programming, operating systems, networking, PC hardware, data modeling, and web technologies. Graduates pursue careers as help desk technicians, computer repair professionals, and computer support specialists. All students have the opportunity to complete the CompTIA A+ Computer Support Specialist industry certification. Coursework for the certificate program also leads to the A.A.S. degree in Information Technology.

Certificate of Applied Science - Computer Support

Missoula College

Degree Specific Credits: 31

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Computer Support Core Courses	28
Mathematics	3-4
Total Hours	31-32

Computer Support Core Courses

Rule: All courses are required

BGEN 105S	Introduction to Business	3
CSCI 105	Computer Fluency	3
CSCI 135	Fund of Computer Science I	3
CSCI 172	Intro to Computer Modeling	3
ITS 150	CCNA 1: Exploration	3
ITS 165	OS Commands and Scripts	3
ITS 210	Network OS - Desktop	3
ITS 280	Computer Repair & Maint.	3
ITS 289	Professional Certification	1
WRIT 101	College Writing I	3
Total Hours		28

Minimum Required Grade: C-

Mathematics

Select one of the following or any Mathematics course having one of these as a prerequisite: 3-4

M 115	Probability and Linear Mathematics	
M 121	College Algebra	
M 151	Precalculus	
Total Hours		3-4

Minimum Required Grade: C-

Cybersecurity

Certificate of Technical Studies - Cybersecurity

Missoula College

Degree Specific Credits: 16

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: Prerequisite skills needed to succeed in this proposed NIS certificate program are met with a degree in Network Management or related field or equivalent work experience. It would be helpful for incoming students to have industry certifications such as A+, CCNA, Security+, Microsoft Servers, or Net+ to establish an appropriate baseline skill set.

Summary

Core Certificate Courses	16
Total Hours	16

Core Certificate Courses

Rule: All courses are required

ITS 271	Securing Desktop/Mobile Dev.	4
ITS 273	Securing Networks	4
ITS 275	Border/Perimeter Network Sec	4
ITS 277	Software Assurance and File Sy	4
Total Hours		16

Minimum Required Grade: C-

Electronics Technology C.A.S Certificate of Applied Science - Electronics Technology

Missoula College

Degree Specific Credits: 30

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Core Courses	30
Total Hours	30

Core Courses

Rule: Must complete all of the following courses:

CSCI 105	Computer Fluency	3
CSCI 113	Programming with C++ I	3
ETEC 105	DC Circuit Analysis	4
ETEC 106	AC Circuit Analysis	3
ETEC 113	Circuits Lab	1
ETEC 250	Solid State Electronics I	4
M 121	College Algebra	3
M 122	College Trigonometry	3
PSYX 100S	Intro to Psychology	3

WRIT 101	College Writing I	3
Total Hours		30

Minimum Required Grade: C-

Electronics Technology A.A.S.

Steve Shen, Program Director

Students in the Electronics Technology program learn to troubleshoot, calibrate, test, and repair electronic components and circuit boards used in a wide range of electronic equipment including computers and communication equipment. Training includes working knowledge of direct and alternating current theory, semiconductor circuits, instrumentation, automatic controls, data communications, computerized communication links, and operational amplifiers. Students become familiar with robotics, electronic communications theory, and modes of RF communications.

Students are awarded the Associate of Applied Science degree upon successful completion of the program.

Associate of Applied Science - Electronics Technology

Missoula College

Degree Specific Credits: 62

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Electronics Technology core courses	62
Total Hours	62

Electronics Technology core courses

Rule: All courses are required

CSCI 105	Computer Fluency	3
CSCI 113	Programming with C++ I	3
or CSCI 110	Programming - VB I	
ETEC 105	DC Circuit Analysis	4
ETEC 106	AC Circuit Analysis	3
ETEC 113	Circuits Lab	1
ETEC 245	Digital Electronics	4
ETEC 250	Solid State Electronics I	4
ETEC 251	Solid State Electronics II	3
ETEC 260	Data and Network Communication	3
ETEC 265	Control Systems	4
ETEC 270	Wireless Communications	4
ETEC 275	Microprocessors and Microcontrollers	4
ETEC 299	Electronics Capstone	3
M 121	College Algebra	3
M 122	College Trigonometry	3
M 162	Applied Calculus	4

PSYX 100S	Intro to Psychology	3
SCN 175N	Integrated Physical Science I	3
WRIT 101	College Writing I	3
or WRIT 121	Intro to Technical Writing	
Total Hours		62

Minimum Required Grade: C-

Energy Auditor C.T.S.

Certificate of Technical Studies - Energy Auditor

Missoula College

Degree Specific Credits: 18

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Core Courses	18
Total Hours	18

Core Courses

Rule: Must complete all of the following courses:

BGEN 105S	Introduction to Business	3
ETEC 213	Power Systems Technology	3
M 121	College Algebra	3
NRGY 101N	Intro to Sustainable Energy	3
NRGY 195	Practicum	2
NRGY 235	Building Energy Efficiency	4
Total Hours		18

Minimum Required Grade: C-

Energy Technology Certificate

The Energy Technology program offers a 30-credit certificate preparing students for entry-level positions in the energy technology field. Required coursework includes mathematics; writing; energy technologies and systems; and energy storage and distribution. Coursework for the certificate program also leads to the A.A.S. degree in Energy Technology.

Certificate of Applied Science - Energy Technology

Missoula College

Degree Specific Credits: 30

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018**Summary**

Energy Technology Core Requirements	
Energy Electives	3
Total Hours	3

Energy Technology Core Requirements

Rule: All courses are required

Note: Substitutions may be approved at the discretion of the program director based on future career and educational goals

BGEN 105S	Introduction to Business	3
or BGEN 160S	Issues in Sustainability	
CSCI 172	Intro to Computer Modeling	3
ETEC 105	DC Circuit Analysis	4
ETEC 106	AC Circuit Analysis	3
ETEC 113	Circuits Lab	1
ETEC 213	Power Systems Technology	3
or ETEC 214	Energy Storage and Dist.	
M 121	College Algebra	3
NRGY 101N	Intro to Sustainable Energy	3
NRGY 195	Practicum	2
NRGY 235	Building Energy Efficiency	4
WRIT 101	College Writing I	3
or WRIT 121	Intro to Technical Writing	
Total Hours		32

Minimum Required Grade: C-

Energy Electives

Select 3 credits from the following:	3
NRGY 241	Alternative Fuels
NRGY 242	Solar Thermal & Wind Systems
NRGY 243	Fundmtl PV Design & Install
NRGY 244	Bioenergy
NRGY 245	Fuel Cells
NRGY 246	Geothermal Energy Technology
NRGY 250	Energy Finance
NRGY 270	Recycling Technology
NRGY 290	Undergraduate Research
NRGY 291	Special Topics
NRGY 292	Independent Study
NRGY 299	Energy Technology Capstone
Total Hours	3

Minimum Required Grade: C-

Energy Technology A.A.S.

Students in the Energy Technology program are introduced to the full suite of energy sources and technologies. Graduates will be general practitioners that are equipped with skills in design, installation, and maintenance of diverse energy technologies and systems; sales, operations, and management; regulatory compliance; basic electricity and power systems; energy storage and distribution; site assessment; basic energy economics; efficiency and conservation strategies; and project management. Students may enter the program in either autumn or spring term. Further information can be found on the Sustainable Energy Technology website (http://mc.umt.edu/acet/Academic_Programs/NRGY/default.php).

Associate of Applied Science - Energy Technology**Missoula College**

Degree Specific Credits: 61

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018**Summary**

Energy Technology Core Requirements	43
Energy Technology Science Requirements	3
Energy Electives	15
Total Hours	61

Energy Technology Core Requirements

Rule: All courses are required

Note: Substitutions are approved at the discretion of the program director based on future career and educational goals

BGEN 105S	Introduction to Business	3
or BGEN 160S	Issues in Sustainability	
CSCI 172	Intro to Computer Modeling	3
ETEC 105	DC Circuit Analysis	4
ETEC 106	AC Circuit Analysis	3
ETEC 113	Circuits Lab	1
ETEC 213	Power Systems Technology	3
or ETEC 214	Energy Storage and Dist.	
ITS 221	Project Management	3
M 121	College Algebra	3
M 122	College Trigonometry	3
NRGY 101N	Intro to Sustainable Energy	3
NRGY 102	Intro to Sustainable Energy II	3
NRGY 195	Practicum	2
NRGY 235	Building Energy Efficiency	4
NRGY 298	Internship	2
WRIT 101	College Writing I	3
or WRIT 121	Intro to Technical Writing	
Total Hours		43

Minimum Required Grade: C-

Energy Technology Science Requirements

Note: Substitutions are approved at the discretion of the program director based on future career and educational goals.

Select one of the following:	3
SCN 175N Integrated Physical Science I	
SCN 176N Integrated Phys. Science II or ENSC 105 Environmental Science	
Total Hours	3

Minimum Required Grade: C-

Energy Electives

Note: 3 credits of a general elective may be substituted in place of 3 credits of energy electives. This substitution must be approved by the program director.

Select 15 credits from the following:	15
NRGY 241 Alternative Fuels	
NRGY 242 Solar Thermal & Wind Systems	
NRGY 243 Fundmtl PV Design & Install	
NRGY 244 Bioenergy	
NRGY 245 Fuel Cells	
NRGY 246 Geothermal Energy Technology	
NRGY 250 Energy Finance	
NRGY 270 Recycling Technology	
NRGY 290 Undergraduate Research	
NRGY 291 Special Topics	
NRGY 292 Independent Study	
NRGY 299 Energy Technology Capstone	
Total Hours	15

Minimum Required Grade: C-

Health Information Technology

This is an advising track only and not an official program as recognized by the University of Montana (UM) or the Montana University System. This information will not appear on your UM transcript, diploma, university lists, student data system, or university publication. You do not fill out a major change for a track.

Professional Certificate - Health Information Technology

Missoula College

Degree Specific Credits: 13-18

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Select one of the following Tracks	13-18
Computing Track	13
Health Professional Track	18
Total Hours	13-18

Computing Track

Note: This certificate requires both the courses listed below and the successful completion of a degree in a computing-related field, i.e. Information Technology.

Health Information Courses

Rule: All courses are required

AHMS 144	Medical Terminology	3
AHMS 156	Medical Billing Fundamentals	3
HIT 101	Intro to Healthcare Informatic	3
HIT 265	Electronic Health Records	3
NRSNG 100	Introduction to Nursing	1
Total Hours		13

Minimum Required Grade: C-

Health Professions Track

Note: This certificate requires the courses below in addition to the successful completion of a degree in a clinical health profession-related field, i.e. nursing.

Computing courses

Rule: All courses are required

CSCI 172	Intro to Computer Modeling	3
CSCI 240	Databases and SQL	3
HIT 101	Intro to Healthcare Informatic	3
HIT 265	Electronic Health Records	3
ITS 150	CCNA 1: Exploration	3
ITS 210	Network OS - Desktop	3
Total Hours		18

Minimum Required Grade: C-

Network Administration and Security

Thomas Gallagher, Program Director

Network Administrator has become a common job title across all career fields. The Network Administration and Security concentration provides students with a background in network administration for supporting users and computing in a networked environment. Coursework in network operating systems, server administration, routers, switches, security, and IP telephony are all embedded in the Network Administration and Security concentration.

The University of Montana is a Cisco Networking Academy, IBM Academic Alliance, & a CompTIA Authorized Academy, and a member of the Microsoft Developers Network Academic Alliance. Opportunities exist for professional certification from Cisco (CCNA, CCENT, CCVA), Microsoft and Comp TIA (A+, Network+ and Security+).

Students entering the program should be prepared with basic computing skills (keyboarding, word processing, file management, and Internet applications) and adequate preparation in mathematics (completion of M 090 or equivalent placement scores). Underprepared students should allocate an additional semester to the suggested four semester sequence.

Associate of Applied Science - Information Technology; Network Administration and Security Concentration

Missoula College

Degree Specific Credits: 60

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Information Technology Core Courses	28
Mathematics	3
Network Administration and Security Option Requirements	25
Security Course Requirement	4
Total Hours	60

Information Technology Core Courses

Rule: All courses are required

Note: Completion of IT core courses fulfills requirements for CAS in computer support.

BGEN 105S	Introduction to Business	3
CSCI 105	Computer Fluency	3
CSCI 110	Programming - VB I	3
CSCI 172	Intro to Computer Modeling	3
ITS 150	CCNA 1: Exploration	3
ITS 165	OS Commands and Scripts	3
ITS 210	Network OS - Desktop	3
ITS 280	Computer Repair & Maint.	3
ITS 289	Professional Certification	1
WRIT 101	College Writing I	3
Total Hours		28

Minimum Required Grade: C-

Mathematics

Rule: Any Mathematics course level 115 or higher

Network Administration and Security Concentration Requirements

Rule: All courses are required

COMX 111A	Intro to Public Speaking	3
CSCI 215E	Social & Ethical Issues in CS	3
ITS 152	CCNA 2: Exploration	3

ITS 212	Network OS - Server Admin	3
ITS 214	Network OS - Infrastructure	3
ITS 222	Enterprise Security	3
ITS 250	CCNA 3: Exploration	3
ITS 252	CCNA 4: Exploration	3
ITS 298	Internship/Cooperative Educati	2
Total Hours		26

Minimum Required Grade: C-

Security Course Requirement

Select one of the following: 4

ITS 271	Securing Desktop/Mobile Dev.
ITS 273	Securing Networks
ITS 275	Border/Perimeter Network Sec
ITS 277	Software Assurance and File Sy

Total Hours 4

Minimum Required Grade: C-

Programming and App Development

Thomas Gallagher, Program Director

Programming and App Development concentration emphasizes application development and business processes. Students learn to write software using an object-oriented programming paradigm for deployment to the web and the desktop. Relational database design, structured query language (SQL), and the ability to create applications which push and pull information from databases are highlighted. Graduates seek careers as computer support specialists, help desk technicians, web developers, software developers, and database administrators.

Associate of Applied Science - Information Technology; Programming and App Development Concentration

Missoula College

Degree Specific Credits: 60

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Information Technology Core Courses	28
Mathematics	3
Programming and App Development Option Requirements	23
Programming and App Development Directed Electives	6
Total Hours	60

Information Technology Core Courses

Rule: All courses are required

Note: Completion of IT core courses fulfills requirements for CAS in computer support.

BGEN 105S	Introduction to Business	3
CSCI 105	Computer Fluency	3
CSCI 135	Fund of Computer Science I	3
CSCI 172	Intro to Computer Modeling	3
ITS 150	CCNA I: Exploration	3
ITS 165	OS Commands and Scripts	3
ITS 210	Network OS - Desktop	3
ITS 280	Computer Repair & Maint.	3
ITS 289	Professional Certification	1
WRIT 101	College Writing I	3
Total Hours		28

Minimum Required Grade: C-

Mathematics

Rule: Any Mathematics course level 115 or higher

Programming and App Development Concentration Requirements

Rule: All courses are required

COMX 111A	Intro to Public Speaking	3
CSCI 113	Programming with C++ I	3
CSCI 136	Fund of Computer Science II	3
CSCI 215E	Social & Ethical Issues in CS	3
CSCI 221	System Analysis and Design	3
CSCI 240	Databases and SQL	3
ITS 298	Internship/Cooperative Educati	2
MART 232	Interactive Web II	3
Total Hours		23

Minimum Required Grade: C-

Programming and App Development Directed Electives

Rule: Required; take a minimum of 6 credits

Note: Student must select at least two directed elective courses (minimum of 6 credits). Directed electives must be approved by student's advisor. Examples of directed electives may include courses from the ACTG, BGEN, COMX, CSCI, DDSN, ITS, or WRIT rubrics. A student may request substitution of other courses to fulfill the directed elective requirement provided a clear connection can be made between a course, a student's career objective, and the degree program. All substitution requests require departmental approval.

Minimum Required Grade: C-

Recycling Technology C.T.S. Certificate of Technical Studies- Recycling Technology

Missoula College

Degree Specific Credits: 16

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Core Courses	16
Total Hours	16

Core Courses

Rule: Must complete all of the following courses:

BGEN 160S	Issues in Sustainability	3
ITS 221	Project Management	3
NRGY 102	Intro to Sustainable Energy II	3
NRGY 241	Alternative Fuels	3
NRGY 270	Recycling Technology	4
Total Hours		16

Minimum Required Grade: C-

Business Technology Department

Cheryl Galipeau, Chair

The Business Technology Department of Missoula College collaborates with business and industry to prepare graduates to compete in and contribute to a dynamic global society. The department attracts and retains skilled faculty with the professional experience and theoretical background to utilize diverse instruction which reflects current and emerging business practices. Faculty actively engage students in the learning process by integrating experiential technical education and empowering students to adapt to an ever-changing world.

Students may choose from six Associate of Applied Science degree programs and four Certificate of Applied Science programs. Degree programs include Accounting Technology with a concentration in Computer Support; Administrative Management with a concentration in Social Media Management; Food Service Management; Hospitality Management; Medical Information Technology with concentrations in Health Information Coding and Medical Administrative Assisting; Paralegal Studies; and Management with concentrations in Entrepreneurship and Sales and Marketing. Certificate of Applied Science programs include Business Media Design, Culinary Arts, Customer Relations, Hospitality Management, Medical Reception, and Sales and Marketing. Certificate of Technical Skills programs include Medical Claims Service Specialist and Entrepreneurship/Start-up.

Undergraduate

- Accounting Technology A.A.S. (p. 368)
- Accounting Technology A.A.S., Computer Support Concentration (p. 368)
- Administrative Management A.A.S. (p. 369)
- Administrative Management A.A.S., Social Media Management Concentration (p. 370)
- Food Service Management A.A.S. (p. 374)
- Hospitality Management A.A.S. (p. 375)
- Management A.A.S., Entrepreneurship Concentration (p. 376)
- Management A.A.S., Sales and Marketing Concentration (p. 377)

- Medical Information Technology A.A.S., Health Information Coding Concentration (p. 378)
- Medical Information Technology A.A.S., Medical Administrative Assisting Concentration (p. 379)
- Paralegal Studies A.A.S. (p. 380)

Undergraduate Certificates

- Business Media Design Certificate of Applied Science (p. 371)
- Culinary Arts Certificate of Applied Science (p. 373)
- Customer Relations Certificate of Applied Science (p. 372)
- Hospitality Management Certificate of Applied Science (p. 374)
- Medical Claims Specialist Certificate (p. 380)
- Medical Reception Certificate of Applied Science (p. 377)
- Sales and Marketing Certificate of Applied Science (p. 376)
- Entrepreneurship Start-up Technical Certificate (p. 375)

Accounting Technology A.A.S.

Lisa Swallow, Director

Almost all organizations need either in-house financial staff or outside bookkeeping/accounting services to aid with financial data compilation and reporting. Bookkeepers and accountants maintain financial records and often participate in strategic planning and other fiscal decisions. Graduates work in small businesses as full charge bookkeepers or large businesses as members of an accounting staff. They are required to communicate extensively with vendors, clients, and employees and are often key players in business projections, cash forecasting, and budgeting. This program provides students the marketable skills for employability in a variety of organizations including service, retail, non-profit, governmental, and accounting firms. Program graduates use technology to gather, compile and analyze data. They communicate budgetary and accounting information to non-financial colleagues and managers. Students considering this program should be analytical, detail-oriented, and enjoy using current technology.

Associate of Applied Science - Accounting Technology

Missoula College

Degree Specific Credits: 63

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

AAS Accounting Technology	60
Total Hours	60

AAS Accounting Technology

Rule: All courses required.

ACTG 101	Accounting Procedures I	4
ACTG 102	Accounting Procedures II	4
ACTG 180	Payroll Accounting	3
ACTG 202	Principles of Managerial Accounting	3
ACTG 211	Income Tax Fundamentals	4
ACTG 215	Fnd of Govt & Not Profit Acct	3
ACTG 250	Accounting Capstone	4
ACTG 298	Internship	2
AMGT 240	Admin Support for the Office	3
BGEN 105S	Introduction to Business	3
BGEN 160S	Issues in Sustainability	3
BGEN 235	Business Law	3
BFIN 205S	Personal Finance	3
CAPP 120	Introduction to Computers	3
CAPP 156	MS Excel	3
	or CSCI 172	Intro to Computer Modeling
COMX 111A	Intro to Public Speaking	3
COMX 115S	Introduction to Interpersonal Communications	3.000
M 115	Probability and Linear Mathematics	3
WRIT 101	College Writing I	3
WRIT 121	Intro to Technical Writing	3
Total Hours		63

Minimum Required Grade: C-

Accounting Technology - Computer Support A.A.S.

Lisa Swallow, Director

In addition to accounting technician training, students selecting this option will be prepared to manage and maintain LAN and/or WAN system, install, maintain and troubleshoot software, and train and support system users. They also will be trained to configure and diagnose workstation hardware, administer system security and upgrade, update and expand network systems.

Associate of Applied Science - Accounting Technology; Computer Support Concentration

Missoula College

Degree Specific Credits: 64

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

AAS Accounting Technology	61
Writing Requirement	3
Total Hours	64

AAS Accounting Technology

Rule: All courses required.

ACTG 101	Accounting Procedures I	4
ACTG 102	Accounting Procedures II	4
ACTG 180	Payroll Accounting	3
ACTG 202	Principles of Managerial Accounting	3
ACTG 211	Income Tax Fundamentals	4
ACTG 250	Accounting Capstone	4
ACTG 298	Internship	2
BGEN 105S	Introduction to Business	3
CAPP 156	MS Excel	3
COMX 111A	Intro to Public Speaking	3
CSCI 105	Computer Fluency	3
CSCI 172	Intro to Computer Modeling	3
CSCI 215E	Social & Ethical Issues in CS	3
ITS 150	CCNA 1: Exploration	3
ITS 165	OS Commands and Scripts	3
ITS 210	Network OS - Desktop	3
ITS 280	Computer Repair & Maint.	3
ITS 289	Professional Certification	1
M 115	Probability and Linear Mathematics	3
Total Hours		58

Minimum Required Grade: C-

Writing Requirement

Rule: Pick 1 of the 2 courses below

Note: See Program Director for prerequisites, placement and advising.

WRIT 101	College Writing I	3
or WRIT 121	Intro to Technical Writing	
Total Hours		3

Minimum Required Grade: C-

Administrative Management A.A.S.

Cheryl Galipeau, Director

The Administrative Management Program allows students to advance the career proficiencies acquired in the Customer Relations certificate program by earning an Associate of Applied Science Degree. Graduates are prepared to meet the administrative and information needs of business and industry by learning to craft online and print documents and publications, communicate positively with internal and external customers, and manage administrative resources, projects, and information. This program prepares students to become vital members of executive teams with the ability to assume supervisory, organizational,

and communication roles in the coordination of administrative services. Students will have the opportunity to gain industry standard expertise by earning Microsoft Office Specialist (MOS) certifications in Microsoft Office programs. Earning a Microsoft Office Specialist certification increases job opportunities by proving technical proficiency in advanced skills to potential and current employers. An Associate of Applied Science Degree in Administrative Management opens opportunities for graduates in a variety of business settings. Academically prepared students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with an advisor prior to selecting courses.

Student Outcomes:

- Formulate service policies for excellent customer service management
- Apply service-level decisions to develop staff, enhance customer loyalty, and deal with challenges and conflicts while serving both internal and external customers
- Demonstrate the workplace skills of effective communication (oral, written, nonverbal), problem-solving, managing interpersonal relationships, and collaborating with teams, thinking critically, and leadership
- Ethically use research and the tools of technology to create and organize business documents efficiently, accurately, and artfully designed
- Design and develop effective online solutions incorporating search engine strategies, attractive user-centered and accessible design for multiple platforms, mobility, and devices relevant to organizational goals and targets
- Plan for career development by creating standard employment documents and honing personal presentation skills
- Understand, appreciate, and recognize opportunities of diverse populations and cultures

Related Job Titles:

- Administrative Assistant
- Administrative Coordinator
- Administrative Manager
- Administrative Specialist
- Client Relations Manager
- Executive Assistant
- Office Assistant
- Virtual Assistant

Associate of Applied Science - Administrative Management

Missoula College

Degree Specific Credits: 64

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

AAS, Administrative Management, Course Requirements	54
Writing Requirements	3
Math Requirements	3
Accounting Requirements	4
Total Hours	64

AAS, Administrative Management, Course Requirements

Rule: All courses required

Note: Completion of the requirements for a Certificate of Applied Science in Customer Relations, 33 credits, is embedded within the completion of the Administrative Management courses. See Program Director for CAS advising.

See Program Director for advising regarding course prerequisites, and math and writing placement assessments.

AMGT 145	Records Management	2
AMGT 240	Admin Support for the Office	3
AMGT 298	Adm Mgmt Internship	2
BGEN 105S	Introduction to Business	3
BGEN 235	Business Law	3
BMGT 212	Critical Analysis for Business	3
BMGT 216	Psych of Mgmt & Supervision	4
BMGT 245	Customer Service Management	4
CAPP 120	Introduction to Computers	3
CAPP 154	MS Word	3
CAPP 254	Advanced MS Word	3
COMX 111A	Intro to Public Speaking	3
COMX 115S	Introduction to Interpersonal Communications	3
COMX 250	Intro to Public Relations	3
CSCI 172	Intro to Computer Modeling	3
ITS 221	Project Management	3
MART 214	Digital Publishing & Design	3
MART 232	Interactive Web II	3
Total Hours		54

Minimum Required Grade: C-

Writing Requirements

Rule: Pick 1 of the 2 courses below

Note: See Program Director for prerequisites, placement and advising.

WRIT 101	College Writing I	3
or WRIT 121	Intro to Technical Writing	
Total Hours		3

Minimum Required Grade: C-

Math Requirements

Rule: Pick 1 of the 2 courses below

Note: See Program Director for prerequisites, placement and advising. Minimum

M 105	Contemporary Mathematics	3
or M 115	Probability and Linear Mathematics	
Total Hours		3

Required Grade: C-

Accounting Requirements

Rule: Pick 1 of the 2 courses below

ACTG 100	Essentials of Accounting	4
or ACTG 101	Accounting Procedures I	
Total Hours		4

Minimum Required Grade: C-

Administrative Management A.A.S. - Concentration in Social Media Management

Cheryl Galipeau, Director

Through the Administrative Management, Social Media Management Concentration, students explore social media platforms and how social media is effectively used to target and attract multiple audiences, build relationships, and promote a presence using new and traditional marketing communications methods. Courses develop skills in producing creative written content for online and print publications, creating and editing images, producing and editing video, and incorporating search engine optimization strategies for user-centered and accessible design in an online environment. Students will use real-time analytics across various social media platforms to understand customer patterns and improve the customer experience and brand's profile by producing and publishing relevant, engaging, and sharable content. Graduates are prepared to evaluate suitability of media content and practices according to expected professional and ethical responsibilities in our global society. An Associate of Applied Science in Administrative Management with a concentration in Social Media Management prepares graduates for careers in product promotion, marketing and communications, and more in a variety of business settings such as product or service related businesses, non-profit, educational, and healthcare organizations.

Academically prepared students entering Autumn semester may complete the program in four semesters. Students entering spring should meet with an advisor prior to selecting courses.

Student Outcomes:

Upon completion of the program, students will:

- Formulate service policies for excellent customer service management
- Apply service-level decisions to develop staff, enhance customer loyalty, and deal with challenges and conflicts while serving both internal and external customers
- Demonstrate the workplace skills of effective communication (oral, written, nonverbal), problem-solving, managing interpersonal

relationships and collaborating with teams, thinking critically, and leadership

- Ethically use research and the tools of technology to create and organize business documents efficiently, accurately, and artfully designed
- Design and develop effective online solutions incorporating search engine and social media optimization strategies, attractive user-centered and accessible design for multiple platforms, mobility, and devices relevant to organizational goals and targets
- Plan for career development by creating standard employment documents and honing personal presentation skills
- Understand, appreciate, and recognize opportunities of diverse populations and cultures
- Promote a positive organizational presence through marketing, advertising and relationship building for online and traditional organizational communications and publications
- Create quality digital images using fundamentals of photography, videography and digital editing
- Analyze, monitor and contrast social media categories and sharing platforms appropriate for consumers who actively participate in today's marketing processes
- Identify social objects, paid media, earned media, owned media and curated media
- Create, deliver and calendar engaging and shareable social media content
- Explore advertising media, budget plans, ad campaign designs, and in-house promotion designs, for radio, television, online and print
- Demonstrate ethical behavior by following social media policies, copyright guidelines, and transparency and disclosure practices
- Be enthusiastic, creative and realistic

Related Job Titles:

- Social Media Editor
- Product Promotion
- Marketing Communications Associate
- Social Media Coordinator
- Social Media Community Manager

Further Educational Opportunities:

All credits earned in the program fulfill partial requirements toward a Bachelor of Applied Science (B.A.S.) degree through the University of Montana OR fulfill partial requirements toward general education core in Communication Studies.

Associate of Applied Science - Administrative Management; Social Media Management Concentration

Missoula College

Degree Specific Credits: 63

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

Social Media Management Option Course Requirements	60
Writing Requirement	3
Total Hours	63

AAS, Administrative Management, Social Media Management Option Course Requirements

Rule: All courses required

Note: See Program Director for advising regarding BMKT 291, Special Topics: Social Media Strategies and Management, 3 cr, offered spring.

AMGT 240	Admin Support for the Office	3
AMGT 298	Adm Mgmt Internship	2
BGEN 105S	Introduction to Business	3
BGEN 235	Business Law	3
BMGT 245	Customer Service Management	4
BMKT 114	Psychology of Selling	3
BMKT 225	Marketing	3
BMKT 240	Advertising	3
BMKT 265	Social Media Strat & Mgmt	3
CAPP 120	Introduction to Computers	3
COMX 111A	Intro to Public Speaking	3
COMX 115S	Introduction to Interpersonal Communications	3
COMX 140L	Intro to Visual Rhetoric	3
COMX 250	Intro to Public Relations	3
CSCI 172	Intro to Computer Modeling	3
JRNL 100H	Media History and Literacy	3
JRNL 257	Beginning Visual Journalism	3
M 115	Probability and Linear Mathematics	3
MART 214	Digital Publishing & Design	3
MART 232	Interactive Web II	3
WRIT 101	College Writing I	3
Total Hours		63

Minimum Required Grade: C-

Business Media Design C.A.S.

Cheryl Galipeau, Director

This program prepares students with a foundation in digital and information technologies, the nature of business enterprise, media history, typography, art, and artistic aesthetics and expression. Courses are project-based; students use artistic business media applications to create and develop a story, select and edit photographs, and create and edit audio/visual work in both still and time-based mediums. Successful projects demonstrate artistic digital expression, effective visual communication, and attractive composition. Students will learn and use Adobe applications, such as Photoshop, After Effects, Final Cut,

Dreamweaver, Flash, InDesign, Bridge, Acrobat, and more. Successful graduates are prepared for entry level jobs in media design for business, education or non-profit organizations. In addition, graduates meet the prerequisite requirements for entry into the undergraduate programs, B.A in Media Arts or B.F.A in Media Arts.

Student Outcomes:

- Gain foundational knowledge in digital and information technologies, the nature of business enterprise, media history, typography, visual symbols, art, and artistic aesthetics and expression
- Create, edit, and design audio/visual work in both the still image and time based mediums that focus on artistic expression and its relationship to digital technology
- Create business documents and publications using common business applications while following ethical, research, and industry standard guiding principles and best practices
- Assemble web assets needed to construct a complete website using current W3C web html document type standards, Search Engine Optimization strategies, and best web practices for file and domain management, container layout, navigation, and attractive web arrangement using principles and elements of design in an accessible web format
- Plan, create, and organize artistically pleasing and effective print layouts based on the intended audience, organizational goals, and sound design through typography and imagery
- Use photo editing software to create, edit and customize digital images in appropriate image size, resolution, and file type for the intended publication medium

Certificate of Applied Science - Business Media Design

Missoula College

Degree Specific Credits: 33

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising.

Summary

CAS Business Media Design Course Requirements	30
Computer Science Requirements	3
Total Hours	33

CAS Business Media Design Course Requirements

Rule: All courses required

BGEN 105S	Introduction to Business	3
COMX 140L	Intro to Visual Rhetoric	3
M 115	Probability and Linear Mathematics	3
MART 101L	Intro to Media Arts	3
MART 102	Digital Technology in the Arts	3
MART 111A	Intro to Photoshop	3
MART 112A	Introduction to Film Editing	3

MART 214	Digital Publishing & Design	3
MART 232	Interactive Web II	3
WRIT 101	College Writing I	3
Total Hours		30

Minimum Required Grade: C-

Computer Science Requirements

Rule: Pick 1 of the 2 courses below

Note: See Program Director for prerequisites, placement and advising.

CAPP 120	Introduction to Computers	3
or CSCI 105	Computer Fluency	
Total Hours		3

Minimum Required Grade: C-

Customer Relations C.A.S

Cheryl Galipeau, Director

The Customer Relations Certificate prepares students to give customers what they expect and increase competitive advantage by creating a service culture, building and maintaining relationships, and developing customer service management systems. Core topics include verbal/nonverbal communication, navigating challenges, resolving conflict, and listening; managing interpersonal relationships and building teams; public relations, reputation management and trust in organizations to improve internal and external customer relationships. Emphasis in business, computers, communications, and exceptional service skills add to a student's value as a customer relations professional. Customer Relations can be earned independently or combined with second-year curriculum toward an Associate of Applied Science degree in Administrative Management.

This certificate is offered fully online. Note: Second year A.A.S. curriculum is not available fully online. Graduates are prepared for work as customer service representatives and managers in a variety of industries.

Student Outcomes:

Upon completion of the program, students will:

- Formulate service policies for excellent customer service management
- Apply service-level decisions to develop staff, enhance customer loyalty, and deal with challenges and conflicts while serving both internal and external customers
- Demonstrate the workplace skills of effective communication (oral, written, nonverbal), problem-solving, managing interpersonal relationships and collaborating with teams, thinking critically, and leadership
- Ethically use research and the tools of technology to create and organize business documents efficiently, accurately, and artfully designed
- Understand, appreciate, and recognize opportunities of diverse populations and cultures

Related Job Titles:

- Customer Service Representative
- Customer Care
- Call Centers
- Client Relations
- Client Services
- Guest Services
- Information Clerk
- Receptionist

Certificate of Applied Science - Customer Relations

Missoula College

Degree Specific Credits: 33

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: The Certificate of Applied Science in Customer Relations is available online. See Program Director for scope and sequence advising.

Summary

CAS Customer Relations Course Requirements	24
Math Requirements	3
Writing Requirements	3
Computer Science Requirements	3
Total Hours	33

CAS Customer Relations Course Requirements

Rule: All courses required

AMGT 145	Records Management	2
BGEN 105S	Introduction to Business	3
BGEN 235	Business Law	3
BMGT 245	Customer Service Management	4
CAPP 120	Introduction to Computers	3
CAPP 154	MS Word	3
COMX 115S	Introduction to Interpersonal Communications	3
COMX 250	Intro to Public Relations	3
Total Hours		24

Minimum Required Grade: C-

Math Requirements

Rule: Pick 1 of the 2 courses below

Note: See Program Director for prerequisites, placement and advising.

M 105	Contemporary Mathematics	3
or M 115	Probability and Linear Mathematics	
Total Hours		3

Minimum Required Grade: C-

Writing Requirements

Rule: Pick 1 of the 2 courses below

Note: See Program Director for prerequisites, placement and advising.

WRIT 101	College Writing I	3
or WRIT 121	Intro to Technical Writing	
Total Hours		3

Minimum Required Grade: C-

Computer Science Requirements

Rule: Pick 1 of the 2 courses below

Note: See Program Director for prerequisites, placement and advising.

CAPP 156	MS Excel	3
or CSCI 172	Intro to Computer Modeling	

Minimum Required Grade: C-

Culinary Arts C.A.S.

Tom Campbell, Director

The Bureau of Labor Statistics indicates that the hospitality field is America's number one retail employer and predicts its growth will increase 30 percent over the next two years. Students entering the Culinary Arts Certificate program or Food Service Management degree program prepare for careers in the hospitality industry. Students develop the skills needed to then seek employment in hotels, restaurants, resorts, casinos, clubs, catering, and corporate dining. Culinary careers encompass hospitality management, sales, product development, and entrepreneurship.

To meet the growing demand of the hospitality industry, two program options are available. Students may earn a Culinary Arts Certificate of Applied Science or a Food Service Management Associate of Applied Science degree.

The Culinary Arts certificate program is three semesters and provides an introduction to the field of culinary arts. Students prepare for an entry-level position in the expanding and challenging food service industry. This program incorporates comprehensive hands-on learning experiences complemented by supportive courses designed to prepare students for a wide range of career opportunities. This program also allows for a seamless transition into the Food Service Management degree.

Certificate of Applied Science - Culinary Arts

Missoula College

Degree Specific Credits: 44

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

CAS Culinary Arts Certificate	44
Total Hours	44

CAS Culinary Arts Certificate

Rule: All courses required.

CAPP 120	Introduction to Computers	3
COMX 115S	Introduction to Interpersonal Communications	3
CULA 101	Introduction to Food Service	5
CULA 105	Food Service Sanitation	2
CULA 156	Dining Room Procedures	3
CULA 157	Pantry & Garde Manger	3
CULA 158	Short Order Cookery	4
CULA 160	Soups, Stocks, & Sauces	3
CULA 161	Meats & Vegetables	3
CULA 165	Baking & Pastry	3
CULA 210	Nutritional Cooking	3
M 105	Contemporary Mathematics	3
PSYX 100S	Intro to Psychology	3
WRIT 121	Intro to Technical Writing	3
Total Hours		44

Minimum Required Grade: C-

Food Service Management A.A.S.

Tom Campbell, Director

The Food Service Management program culminates in an Associate of Applied Science Degree. This program combines theory, practical training, and industry experience to prepare students for entry-level and management positions in the diverse and dynamic hospitality industry. The degree program is designed to continue principles taught in the Culinary Arts certificate program. The spectrum of learning is expanded to include more in-depth professional studies thereby enhancing employment options. Accreditation by the American Culinary Federation ensures graduates' eligibility for certification as an ACF "Certified Culinarian".

Technical subject areas include introduction to the industry, basic baking, patisserie, cost control, dining room service, Garde manger, nutritional cooking, fundamental cooking principles, short order cookery, a la carte stations, menu planning, supervised internship, and the recognized sanitation certificate awarded by the National Restaurant Association Educational Foundation.

Associate of Applied Science - Food Service Management

Missoula College

Degree Specific Credits: 65

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

AAS Food Service Management	65
Total Hours	65

AAS Food Service Management

Rule: All courses required.

BMGT 216	Psych of Mgmt & Supervision	4
CAPP 120	Introduction to Computers	3
COMX 115S	Introduction to Interpersonal Communications	3
CULA 101	Introduction to Food Service	5
CULA 105	Food Service Sanitation	2
CULA 156	Dining Room Procedures	3
CULA 157	Pantry & Garde Manger	3
CULA 158	Short Order Cookery	4
CULA 160	Soups, Stocks, & Sauces	3
CULA 161	Meats & Vegetables	3
CULA 165	Baking & Pastry	3
CULA 205	Catering Management	2
CULA 210	Nutritional Cooking	3
CULA 270	Purchasing and Cost Controls	5
CULA 275	Patisserie	2
CULA 298	Food Service Internship	4
CULA 299	Culinary Arts Capstone	4
M 105	Contemporary Mathematics	3
PSYX 100S	Intro to Psychology	3
WRIT 121	Intro to Technical Writing	3
Total Hours		65

Minimum Required Grade: C-

Hospitality Management Certificate

Aimee Elliott, Director

The Certificate of Applied Science in Hospitality Management develops the skills students will use in the hospitality and tourism industry and provides students with the knowledge and practical experience in the major areas of management and operation: accounting, customer service, marketing/sales, and hotel management/operation. Graduates prepare for entry-level, professional careers involving business support for

restaurants, hotels, resorts, casinos, and other hospitality and tourism organizations.

The certificate option is two semesters. If students wish to expand their education beyond a certificate, the program also allows seamless transition into the AAS in Hospitality Management and/or Food Service Management.

Certificate of Applied Science - Hospitality Management

Missoula College

Degree Specific Credits: 32

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Core Courses	28-33
Total Hours	28-33

Core Courses

Rule: Must complete all of the following courses:

ACTG 101	Accounting Procedures I	4
ACTG 102	Accounting Procedures II	4
BMGT 245	Customer Service Management	4
HTR 107	Intro Hospitality Management	3
HTR 201	Hotel Mngmt/Ops	3
M 115	Probability and Linear Mathematics	3
PSYX 100S	Intro to Psychology	3
WRIT 101	College Writing I	3
Total Hours		27

Minimum Required Grade: C-

Hospitality Management A.A.S.

Aimee Elliott, Director

The Associate of Applied Science in Hospitality Management develops the skills students will use in the hospitality and tourism industry and provides students with the knowledge and practical experience in the major areas of management and operation, including accounting, customer service, hotel management/operation, restaurant management/operation, purchasing, and sanitation practices in food service. Graduates prepare for entry-level, professional careers involving business support for restaurants, hotels, resorts, and other hospitality and tourism organizations.

The AAS degree option is five semesters, which includes a hospitality geared internship to allow extensive hands-on learning in the industry.

Associate of Applied Science - Hospitality Management

Missoula College

Degree Specific Credits: 63

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

AAS Hospitality Management	60
Hospitality Management Elective	3
Total Hours	63

AAS Hospitality Management

Rule: All courses required.

ACTG 101	Accounting Procedures I	4
ACTG 102	Accounting Procedures II	4
BGEN 105S	Introduction to Business	3
BMGT 216	Psych of Mgmt & Supervision	4
BMGT 245	Customer Service Management	4
COMX 111A	Intro to Public Speaking	3
CSCI 172	Intro to Computer Modeling	3
CULA 101	Introduction to Food Service	5
CULA 105	Food Service Sanitation	2
CULA 270	Purchasing and Cost Controls	5
CULA 299	Culinary Arts Capstone	4
HTR 107	Intro Hospitality Management	3
HTR 201	Hotel Mngmt/Ops	3
HTR 298	Internship	4
M 115	Probability and Linear Mathematics	3
PSYX 100S	Intro to Psychology	3
WRIT 101	College Writing I	3
Total Hours		60

Minimum Required Grade: C-

Hospitality Management Elective

Minimum Required Grade: C-

3 Total Credits Required

Entrepreneurship/Start-up Certificate

Technical Certificate - Entrepreneurship/Start-up

Missoula College

Degree Specific Credits: 13

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Core Courses 13

Core Courses

Rule: Must complete all of the following courses:

ACTG 101	Accounting Procedures I	4
BMGT 299	Capstone:Entrepreneurship	3
BMKT 114	Psychology of Selling	3
BMKT 240	Advertising	3
Total Hours		13

Minimum Required Grade: C-

Sales and Marketing Certificate

This concentration combines technical sales and promotional related courses as a foundation for students seeking middle to advanced positions in the sales and marketing field. Students will be required to complete sales presentations using appropriate techniques to apply consultative and negotiation selling skills. Students will study and demonstrate effective sales techniques, plan and implement effective visual displays and presentations, and develop strong record keeping skills and management of accounts. Additional emphases in computer skills, accounting, and technical writing provide students with the needed edge for this competitive career.

Certificate of Applied Science - Sales and Marketing

Missoula College

Degree Specific Credits: 34

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

CAS Sales and Marketing	34
Total Hours	34

CAS Sales and Marketing

Rule: All courses required

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

ACTG 101	Accounting Procedures I	4
ACTG 102	Accounting Procedures II	4
BMKT 109	Visual Merchandising & Display	3
BMKT 112	Applied Sales	2
BMKT 114	Psychology of Selling	3
BMKT 225	Marketing	3
CAPP 120	Introduction to Computers	3
COMX 250	Intro to Public Relations	3
CSCI 172	Intro to Computer Modeling	3
M 115	Probability and Linear Mathematics	3
WRIT 101	College Writing I	3
Total Hours		34

Minimum Required Grade: C-

Management - Entrepreneurship A.A.S.

Students selecting the Entrepreneurship option will focus on venture initiation, constructing business plans, generating financing, and beginning operations. Areas of study focus on the critical factors involved in accounting, sales strategy, advertising and marketing issues complemented with supervisory skills. Students gain knowledge of basic disciplines of business through both classroom and hands-on training. Computer technology and web development are added components to assist students to compete in today's changing business climate. Successful graduates will depart with a comprehensive business plan and presentation skills required to approach financiers.

Associate of Applied Science - Management; Entrepreneurship Option

Missoula College

Degree Specific Credits: 64

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

AAS Business Management, Entrepreneurship	64
Total Hours	64

AAS Business Management, Entrepreneurship

Rule: All courses required

ACTG 101	Accounting Procedures I	4
ACTG 102	Accounting Procedures II	4
ACTG 180	Payroll Accounting	3
BGEN 235	Business Law	3

BFIN 205S	Personal Finance	3
BMGT 216	Psych of Mgmt & Supervision	4
BMGT 298	Management Internship	2
BMGT 299	Capstone:Entrepreneurship	3
BMKT 112	Applied Sales	2
BMKT 114	Psychology of Selling	3
BMKT 225	Marketing	3
BMKT 240	Advertising	3
CAPP 120	Introduction to Computers	3
COMX 111A	Intro to Public Speaking	3
CSCI 172	Intro to Computer Modeling	3
ECNS 201S	Principles of Microeconomics	3
M 115	Probability and Linear Mathematics	3
MART 214	Digital Publishing & Design	3
MART 232	Interactive Web II	3
PSYX 100S	Intro to Psychology	3
WRIT 101	College Writing I	3
Total Hours		64

Minimum Required Grade: C-

Management - Sales and Marketing A.A.S.

This option combines technical sales and promotional related courses as a foundation for students seeking middle to advanced positions in the sales and marketing field. Students will be required to complete sales presentations using appropriate techniques to apply consultative and negotiation selling skills. Students will study and demonstrate effective sales techniques, plan and implement effective visual displays and presentations, and develop strong record keeping skills and management of accounts. Additional emphases in computer skills, accounting, and technical writing provide students with the needed edge for this competitive career.

Associate of Applied Science - Management; Sales and Marketing Concentration

Missoula College

Degree Specific Credits: 67

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

AAS Business Management, Sales & Marketing	67
Total Hours	67

AAS Business Management, Sales & Marketing

Rule: All courses required

Note: BMGT 298 is a 2 crt course.

ACTG 101	Accounting Procedures I	4
ACTG 102	Accounting Procedures II	4
ACTG 180	Payroll Accounting	3
BGEN 235	Business Law	3
BMGT 212	Critical Analysis for Business	3
BMGT 216	Psych of Mgmt & Supervision	4
BMGT 298	Management Internship	2
BMKT 109	Visual Merchandising & Display	3
BMKT 112	Applied Sales	2
BMKT 114	Psychology of Selling	3
BMKT 225	Marketing	3
BMKT 240	Advertising	3
CAPP 120	Introduction to Computers	3
COMX 111A	Intro to Public Speaking	3
COMX 250	Intro to Public Relations	3
CSCI 172	Intro to Computer Modeling	3
ECNS 201S	Principles of Microeconomics	3
M 115	Probability and Linear Mathematics	3
MART 214	Digital Publishing & Design	3
MART 232	Interactive Web II	3
PSYX 100S	Intro to Psychology	3
WRIT 101	College Writing I	3
Total Hours		67

Minimum Required Grade: C-

Medical Reception Certificate

Michelle Boller, Director

The Medical Reception Certificate prepares students with the required skills to provide exceptional service to patients in a medical setting, ranging from private practice receptionists to hospital ward secretaries. Students learn how to perform essential duties including:

- Greeting patients, scheduling appointments, screening telephone calls, obtaining and entering patient registration information, releasing appropriate medical information, maintaining medical records, and managing patient flow
- Understanding the financial transactions of a practice with a clear understanding of all the activities in the billing and collection cycle
- Applying foundational knowledge of medical law and the principles of medical ethics as well as the guidelines established by HIPAA.

Upon completion of the program, students receive a Certificate of Applied Science and will be prepared to work as receptionists in healthcare facilities and physician offices.

Certificate of Applied Science - Medical Reception

Missoula College

Degree Specific Credits: 33

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

CAS Medical Reception	30
Math Requirements	3
Total Hours	33

CAS Medical Reception

Rule: All courses required.

Note: Substitutions are approved at the discretion of the program director.

ACTG 100	Essentials of Accounting	4
or ACTG 101	Accounting Procedures I	
AHMS 144	Medical Terminology	3
AHMS 156	Medical Billing Fundamentals	3
AHMS 175	Medical Law & Ethics	2
AHMS 220	Medical Office Procedures	4
AHMS 252	Computerized Medical Billing	3
AMGT 145	Records Management	2
CAPP 120	Introduction to Computers	3
CAPP 154	MS Word	3
WRIT 121	Intro to Technical Writing	3
or WRIT 101	College Writing I	
Total Hours		30

Minimum Required Grade: C-

Math Requirements

Rule: Any Math course M 105 or above.

Note: Appropriate placement into mathematics courses required. Prerequisites may apply.

Minimum Required Grade: C-

3 Total Credits Required

Medical Information Technology - Health Information Coding Specialty A.A.S.

Michelle Boller, Director

Health information coders play a critical role in accurately identifying procedures and diagnoses to ensure accurate billing and reimbursement. Students are trained to:

- Understand anatomy, medical terminology, and disease processes necessary to determine correct codes and sequences
- Analyze health records and to accurately abstract and code procedures and diagnoses utilizing legal and regulatory standards
- Communicate with physicians, healthcare facilities, insurance companies, and patients to ensure accurate and timely reimbursement

Graduates are adequately prepared for many roles, such as working in a front office with patients or behind the scenes with insurance companies and healthcare facilities. Upon graduation students are encouraged and eligible to sit for AHIMA Certified Coding Associate (CCA) and Certified Coding Specialist (CCS) certification exams to increase their employment opportunities.

Associate of Applied Science - Medical Information Technology; Health Information Coding Spec Concentration

Missoula College

Degree Specific Credits: 62

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

Degree Core Courses	59
Math Requirements	3
Total Hours	62

Degree Core Courses

Rule: All Courses Required

Note: AHMS 160, 164, 212, and 213 are taken through Great Falls College-MSU. Students must also take AHMS 201 at Great Falls College-MSU in order to register for AHMS 160 and 164

AHMS 160	Beginning Procedural Coding	3
AHMS 164	AHMS 164 Beginning Diagnosis Coding: ICD-10	3
AHMS 212	CPT Coding	3
AHMS 213	ICD-10 CODING	3

See program director for coding course information.

WRIT 101 may be substituted for WRIT 121 at the discretion of the program director.

AHMS 108	Health Data Content & Struct	2
AHMS 144	Medical Terminology	3
AHMS 156	Medical Billing Fundamentals	3
AHMS 175	Medical Law & Ethics	2
AHMS 216	Pharmaceutical Products	3
AHMS 220	Medical Office Procedures	4
AHMS 245	Simulated Lab	3
AHMS 298	Medical Info Internship	3
AHMS 252	Computerized Medical Billing	3
BIOH 112	Human Form and Function I	3
CAPP 120	Introduction to Computers	3
CAPP 154	MS Word	3
CAPP 156	MS Excel	3
COMX 115S	Introduction to Interpersonal Communications	3
PSYX 100S	Intro to Psychology	3
WRIT 121 or WRIT 101	Intro to Technical Writing College Writing I	3
Total Hours		47

Minimum Required Grade: C-

Math Requirements

Rule: Any Math course M 105 or above

Minimum Required Grade: C-

3 Total Credits Required

Medical Information Technology - Medical Administrative Assisting A.A.S.

Michelle Boller, Director

Medical administrative assistants are critical to a healthcare facility. They are the first person a patient talks to or meets when they come in for care. This program offers students a career in this fascinating and high-demand medical field. According to the Bureau of Labor Statistics, positions in these medical areas are expected to increase over 20 percent in the next several years.

In the first year of this program students will receive the Medical Reception certificate. Upon completion, students will continue to develop skills to:

- Effectively and confidentially communicate with patients, maintain patient records, schedule appointments, and transcribe letters and patient chart notes
- Post charges and payments and submit insurance claims using current coding procedures

- Create and update the office procedures manual, assist in improving work flow and office efficiencies, and supervise and communicate with office personnel

Graduates are prepared for employment in clinics, hospitals, private practices, insurance companies, and work-at-home opportunities. Students successfully completing the program are awarded the Associate of Applied Science degree. Students may enter either Autumn or Spring semester.

Associate of Applied Science - Medical Information Technology; Medical Administrative Assist Concentration

Missoula College

Degree Specific Credits: 64

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

Degree Core Courses	61
Math Requirements	3
Total Hours	64

Degree Core Courses

Rule: All Courses Required

Note: Substitutions are approved at the discretion of the program director.

ACTG 100 or ACTG 101	Essentials of Accounting Accounting Procedures I	4
AHMS 108	Health Data Content & Struct	2
AHMS 144	Medical Terminology	3
AHMS 156	Medical Billing Fundamentals	3
AHMS 175	Medical Law & Ethics	2
AHMS 220	Medical Office Procedures	4
AHMS 252	Computerized Medical Billing	3
AHMS 298	Medical Info Internship	3
AMGT 145	Records Management	2
AMGT 240	Admin Support for the Office	3
BIOH 112	Human Form and Function I	3
BMGT 216	Psych of Mgmt & Supervision	4
BMGT 245	Customer Service Management	4
CAPP 120	Introduction to Computers	3
CAPP 154	MS Word	3
CAPP 156	MS Excel	3
CAPP 254	Advanced MS Word	3
COMX 115S	Introduction to Interpersonal Communications	3

WRIT 121	Intro to Technical Writing	3
or WRIT 101	College Writing I	
Total Hours		58

Minimum Required Grade: C-

Math Requirements

Rule: Any Math Course M 105 or above

Minimum Required Grade: C-

3 Total Credits Required

Medical Claims Specialist Certificate

Michelle Boller, Director

Students are prepared academically and professionally for claim specialist positions in insurance organizations and healthcare facilities. In this fast-track program, students will learn foundational skills to:

- Understand medical terminology and human biology
- Understand medical benefit plans and the claims process to responsibly verify the accuracy and receipt of claims and the analysis of information for processing claims to promote accurate and prompt reimbursement
- Communicate professionally between peers, vendors, management, and customers in order to provide exceptional customer service
- Recommend claims action steps to promote accurate and prompt reimbursement

Additionally graduates will work collaboratively with other team members to ensure the most positive service experience to both customers and vendors.

Medical Claims Specialist Certificate

Missoula College

Degree Specific Credits: 22

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

Medical Claims Specialist Certificate

Rule: All courses required.

Note: Substitutions are approved at the discretion of the program director.

AHMS 108	Health Data Content & Struct	2
AHMS 144	Medical Terminology	3

AHMS 156	Medical Billing Fundamentals	3
AHMS 252	Computerized Medical Billing	3
BIOH 108	Basic Anatomy	4
BMGT 245	Customer Service Management	4
CAPP 120	Introduction to Computers	3
Total Hours		22

Minimum Required Grade: C-

Paralegal Studies A.A.S.

Tom Stanton, Director

This program is approved by the American Bar Association. The Paralegal Studies program prepares students for challenging and diverse careers in private law practices and in the law-related areas of business, industry, and government. The goals of the Paralegal Studies program are to enable students, through theoretical and practical legal education, to understand the function of law, to work as paralegals in the effective delivery of legal services, and to enhance the legal profession. This program is designed to equip students with skills to analyze legal issues and to perform a variety of activities including drafting legal documents, interviewing clients, conducting legal research, and preparing cases for trial. Students utilize current technology through Internet research and legal and general office software applications. Paralegal studies students receive the necessary legal training to take advantage of new career opportunities in all sectors of the economy. Students are exposed to the principles of legal ethics and are cautioned regarding restrictions against the unauthorized practice of law by laypersons. Paralegals may not provide legal services directly to the public, except as permitted by law.

Associate of Applied Science - Paralegal Studies

Missoula College

Degree Specific Credits: 68

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: Two year/four semester in-step degree. If classes are taken out of sequence, or Spring enrollment, additional semesters are required for graduation. Also note, LEG prefix (legal specialty) are only offered in the semester indicated.

See Program Director for scope and sequence advising. Please refer to online schedule for online course availability.

Summary

Associate in Applied Sciences in Paralegal Studies Course Requirements	68
Total Hours	68

Associate in Applied Sciences in Paralegal Studies Course Requirements

Rule: All Courses Required

ACTG 100	Essentials of Accounting	4
or ACTG 101	Accounting Procedures I	
BMGT 212	Critical Analysis for Business	3
CAPP 120	Introduction to Computers	3
CAPP 154	MS Word	3
COMX 111A	Intro to Public Speaking	3
LEG 183	Contracts	2
LEG 184	Legal Ethics	2
LEG 185	Introduction Paralegal Studies	3
LEG 186	Introduction to Legal Research	2
LEG 187	Leg Res & Wrtg I	2
LEG 188	Prin of Real Estate	2
LEG 189	Criminal Procedures	3
LEG 270	Civil Litigation	3
LEG 272	Computers & Law	3
LEG 282	Contemporary Legal Issues	3
LEG 283	Trial Preparation	3
LEG 285	Family Law	3
LEG 286	Legal Res & Writing II	2
LEG 287	Legal Res. & Writing III	2
LEG 288	Estate Administration	2
LEG 298	Paralegal Studies Internship	2
M 105	Contemporary Mathematics	3
PSCI 210S	Intro to American Government	3
PSYX 100S	Intro to Psychology	4
or BMGT 216	Psych of Mgmt & Supervision	
SOCI 101S	Introduction to Sociology	3
WRIT 101	College Writing I	3
Total Hours		71

Minimum Required Grade: C-

Health Professions Department

Dan Funsch, Chair

The Health Professions Department of Missoula College-University of Montana seeks to prepare students to be health practitioners who are technically competent and who are safe and in a variety of clinical, agency and community settings. The Health Professions Department offers four Associate of Applied Science (A.A.S.) Degrees, one Associate of Science (A.S.) Degree, and one Certificate of Applied Science (CAS) program with courses and learning experiences that contribute to understanding the health needs of individuals and society. Clinical affiliations and on-site experiences are essential elements of all programs; local and regional communities, their agencies, and organizations are a valuable resource and provide cooperative learning experiences in health delivery systems.

Undergraduate

- Medical Assisting A.A.S. (p. 381). (<http://catalog.umt.edu/colleges-schools-programs/missoula-college/health-professions/aas-practical-nursing>)
- Radiologic Technology A.A.S. (p. 383)
- Registered Nursing A.S. (p. 384)

- Respiratory Care A.A.S. (p. 386)
- Surgical Technology A.A.S. (p. 387)

Undergraduate Certificates

- Pharmacy Technology C.A.S. (p. 382)
- Computer Tomography Certificate (p. 381)

Computed Tomography Certificate

The five-credit Computed Tomography certificate fulfills the new American Registry of Radiologic Technologists certification requirements and is available to registered and licensed radiologic technologists and current Missoula College radiology students.

The Montana Department of Labor and Industry has agreed to work with employers to set up an apprenticeship model for qualified candidates to complete their clinical competences. Employers may sponsor the certification of current radiologic technologists to ensure compliance with the new ARRT Certification requirements. For technologists who are not employed by the institution, the apprenticeship agreement would codify a probationary period, incremental wage increases, a requirement to pass the certification exam, and a requirement to work for an agreed-upon amount of time once the training is complete.

For more information, please call:

Maryann Dunbar - Administrative Assistant, Health Professions
- 406-243-7868

Anne Delaney - Program Director, Radiologic Technology - 406-243-7809

Technical Certificate - Computed Tomography

Missoula College

Degree Specific Credits: 6

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Certificate in Computed Tomography	5
Total Hours	5

Certificate in Computed Tomography

Rule: All courses required

AHXR 274	Cross Sectional Anatomy	3
AHXR 275	Physics and Instrumentation	2
Total Hours		5

Minimum Required Grade: B

Medical Assisting A.A.S.

Students in Medical Assisting are cross-trained with skills and knowledge in front office administrative, clinical, and limited laboratory procedures that are designed to assist healthcare practitioners in administering to

the needs of patients. Selected administrative skills include scheduling, medical office accounting systems, medical coding and billing, and electronic medical records. Some of the clinical skills the student will learn include assisting with medical examinations, vital signs, administering medications and injections (under supervision), sterilizing instruments and electrocardiography. Laboratory skills will include venipuncture (under supervision), and performing selected CLIA-waived laboratory tests. Additionally, Medical Assisting students will become acquainted with the laws and regulations governing medicine in the ambulatory setting, as well as ethical issues being confronted in the health care arena. The program is designed to prepare the student for an entry-level position in Medical Assisting.

Students may apply for admission by meeting with the program director. Prior to entry, the student must be able to show competency in computers. Each Spring students will have to provide documentation of vaccines, background check, etc. as posted on the program's web page. Because some classes are only offered in a specific semester, plus some courses have pre-requisites or co-requisites, meeting with the program director before each semester is necessary to avoid problems.

Students must earn a "C" or better in all courses in order to progress and complete the program. This includes being able to pass 100% of psychomotor and affective competencies required in AHMA 260 & AHMA 262 Laboratory courses. A course may be attempted a maximum of two times. At the end of the program the student will perform a 200-hour, unpaid externship/practicum in an ambulatory facility, such as a clinic or doctor's office. The site must be approved by the Program Director. This provides the student with the opportunity to apply the knowledge and skills learned in a real world setting. Students successfully completing the program will be awarded an Associate of Applied Science degree.

Graduates who desire to obtain certification as a Medical Assistant will need to meet with the program director to discuss available options.

Associate of Applied Science - Medical Assisting

Missoula College

Degree Specific Credits: 47

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: A minimum of a C in each Medical Assisting core course is required for graduation. Medical Assisting core courses must be completed with no more than 2 attempts. The student must show competence in computers to enter the Medical Assisting program.

Summary

Core Courses	60
Total Hours	60

Core Courses

Rule: Must complete all of the following courses

ACTG 101	Accounting Procedures I	4
AHMA 201	Med Asst Clinical Prcdrs I	4

AHMA 203	Med Asst Clinical Prcdrs II	4
AHMA 260	Med Assist Lab 1	2
AHMA 262	Med Assist Laboratory Procedures 2	2
AHMA 298	Medical Assisting Externship	5
AHMS 144	Medical Terminology	3
AHMS 156	Medical Billing Fundamentals	3
AHMS 175	Medical Law & Ethics	2
AHMS 216	Pharmaceutical Products	3
AHMS 220	Medical Office Procedures	4
AHMS 252	Computerized Medical Billing	3
BIOH 112	Human Form and Function I	3
BIOH 113	Human Form and Function II	3
CAPP 154	MS Word	3
COMX 115S	Introduction to Interpersonal Communications	3
M 105	Contemporary Mathematics	3
PSYX 100S	Intro to Psychology	3
WRIT 121	Intro to Technical Writing	3
Total Hours		60

Minimum Required Grade: C

Pharmacy Technology C.A.S.

Mary McHugh, Director

The Pharmacy Technology Program at Missoula College prepares students to function as pharmacy technicians in hospital-based pharmacies, community pharmacies, and several other types of pharmacies. The two-semester program includes online classes, simulation exercises in a well-equipped pharmacy lab, and experiential learning opportunities. Lab and experiential hours allow students to integrate their knowledge gained from online studies into practical settings.

The Pharmacy Technology Program is an autumn entry program. Applicants to the Pharmacy Technology program must complete the program specific application packet which can be obtained from the UM Missoula College Pharmacy Technology website.. Documentation of college level skills in writing, math, and computers is required. Please see the application form for acceptable methods of documentation.

Once accepted into the program, all students are expected to register with the State of Montana as Pharmacy Technicians in Training. Please note the requirements of registration as a Pharmacy Technician in Training found on the application form on the Montana State Board of Pharmacy website: <http://boards.bsd.dli.mt.gov/pha> Students must complete the required autumn PHAR classes with a C or higher to proceed to the spring semester. If a student does not pass the required courses with a C or better, he/she will not be able to continue in the program and will need to apply for readmission. A student may take any required course a maximum of two (2) times. After successfully completing the program and sitting for the Pharmacy Technician Certification Exam, students are awarded a Certificate of Applied Science.

Conviction of a crime (misdemeanor or felony) could leave an individual ineligible for participation in the certifying test and/or becoming registered in Montana as a certified pharmacy technician. Background checks are required prior to internships. Additionally, the Montana State Board of Pharmacy Application for Pharmacy Technician Registration

includes a number of questions regarding personal history, including but not limited to criminal charges. Please contact the PTCB (Pharmacy Technician Certification Board), www.ptcb.org (<http://www.ptcb.org>), and the Montana State Board of Pharmacy if this is a potential problem.

The Pharmacy Technology Program is accredited by the American Society of Health System Pharmacists/Accreditation Council of Pharmacy Education (ASHP/ACPE), as well as falling under the University of Montana's accreditation by the Northwest Commission on Colleges and Universities (NWCCU).

The Bureau of Labor Statistics indicates that for 2016, the salary range in Montana was \$33,970-\$42,170.

Certificate of Applied Science - Pharmacy Technology

Missoula College

Degree Specific Credits: 33

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: Math: Placement into Level 3 using a proctored ALEKS assessment

Writing: Score of 7 on the E-Write assessment

Summary

Degree Core Courses	33
Total Hours	33

Degree Core Courses

Rule: Complete all courses

Note: AHMS 144 May be taken before application to the program.

There are two different sections of PHAR 198 and both are required to receive the certificate.

AHMS 144	Medical Terminology	3
CAPP 120	Introduction to Computers	3
PHAR 100	Intro Pharm Practice for Techs	3
PHAR 101	Pharmacy Calculations	3
PHAR 102	Pharmacology for Technicians	6
PHAR 104	Pharmacy Dispensing Lab	3
PHAR 120	Medication Safety	3
PHAR 121	Preparation for the PTCB Exam	1
PHAR 198	Internship: Pharmacy (two different sections - 4 credits each)	8
Total Hours		33

Minimum Required Grade: C-

Radiologic Technology A.A.S.

Anne Delaney, Director

A Radiologic Technologist (Radiographer) uses critical thinking and independent judgment to obtain diagnostic medical images while providing quality patient care and minimizing radiation exposure. Technologists are employed in acute care settings, ambulatory care settings, physicians' offices, in education and in management or sales positions. With additional education and training, radiographers may be employed in radiation therapy, computed tomography, mammography, magnetic resonance imaging, diagnostic medical ultrasound, nuclear medicine, special vascular imaging and cardiac catheterization.

The Radiologic Technology program is approved by the American Registry of Radiologic Technologists (ARRT) and accredited by the Northwest Association of Schools and Colleges. When all requirements for the associate degree are completed, the student will be eligible to take the national certification examination administered by the American Registry of Radiologic Technologists. Upon successful completion of this examination, the student becomes a Registered Radiologic Technologist, R.T. (R) ARRT.

Program Requirements

The Associate of Applied Science degree in Radiologic Technology requires students to successfully complete the Pre-Radiology prerequisite courses prior to applying to the program. Students admitted to the University of Montana may enroll in the Pre-Radiology prerequisite courses.

Students must pass BIOH 201N-202N with a minimum grade of 'B' and have a minimum cumulative GPA of 2.75 in all course work, including prerequisite courses, to apply to the Radiologic Technology program. A course may be attempted a maximum of two times. As some courses are offered Autumn or Spring semester only, it is important to obtain advising with the Program Director or Clinical Coordinator each semester prior to registration.

Application to the program is required Spring semester in the year prior to the Autumn semester program start. Students may apply while enrolled in the Pre-Radiology prerequisite courses with acceptance to the program to be determined after Spring grades are finalized. Students who apply twice to the program and are not accepted are strongly encouraged to contact Career Services for counseling toward another degree.

The program classes begin Autumn semester each year with the majority of classroom courses completed in the first two semesters. Clinical education will begin at the end of the second semester. A ten-week summer clinical rotation is required between the first and second years and consists of 40 hour per week of clinical instruction. The Autumn semester of the second year will also be dedicated to 40 hours per week of clinical instruction.

Students entering the program are required to rotate to clinical sites outside the Missoula area on a periodic basis. These rotations will take place during any term or session beginning the Summer semester of the program. These sites may include, but are not limited to, Ronan, Hamilton, Plains, Ronan, and Polson, Montana. Transportation and housing are the student's responsibility.

Associate of Applied Science - Radiologic Technology

Missoula College

Degree Specific Credits: 83

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: It is preferred that students have the prerequisite core completed by the end of the semester in which they intend to apply to the program (i.e. applying to the program in the spring and completing the core by the end of that spring semester.) Students must also prove competence with computer technology prior to application to the Radiology Technology Program in one of the following three ways:

1. Acceptable transfer credit for CAPP 120,
2. Passing challenge exam for CAPP 120, or
3. Take and pass CAPP 120

Summary

Radiologic Technology Prerequisite Courses	13
Math Requirement	3
Writing Requirement	3
Radiologic Technology Courses	68
Total Hours	87

Radiologic Technology Prerequisite Courses

Rule: All courses required

Note: Students must pass BIOH 201N/BIOH 202N with a minimum grade of 'B' and have a minimum cumulative GPA of 2.75 in all course work including prerequisite courses to apply to the Radiologic Technology program.

AHMS 144	Medical Terminology	3
BIOH 201N	Human Anat Phys I (equiv 301) (minimum grade of 'B')	4
CAPP 120	Introduction to Computers	3
SCN 175N	Integrated Physical Science I	3
Total Hours		13

Minimum Required Grade: C-

Math Requirement

Rule: Take either

M 115	Probability and Linear Mathematics	3
or M 121	College Algebra	
Total Hours		3

Minimum Required Grade: C-

Writing Requirement

Rule: Take either

WRIT 101	College Writing I	3
or WRIT 121	Intro to Technical Writing	
Total Hours		3

Minimum Required Grade: C-

Radiologic Technology Courses

Rule: All courses required

Note: These courses cannot be taken unless accepted into the program through the application process.

- AHXR 195 is taken Spring Semester at 2 credits and Summer at 12 credits.
- AHXR 295 is taken Autumn Semester at 12 credits and second year Spring at 8 credits.
- For AHXR courses the minimum grade is a B.

AHMS 270E	Medical Ethics	3
AHXR 100	Intro to Diagnostic Imaging	3
AHXR 121	Radiographic Imaging I	4
AHXR 140	Radiographic Methods	3
AHXR 141	Radiology Lab	1
AHXR 221	Radiographic Imaging II	3
AHXR 195	Radiographic Clinical: I	14
AHXR 225	Radiobiology/Radiation Protctn	2
AHXR 240	Radiological Methods II	2
AHXR 241	Radiology Lab II	1
AHXR 270	Radiographic Registry Review	2
AHXR 295	Radiographic Clinical: I	20
BIOH 211N	Human Anat Phys II (equiv 311)	4
COMX 115S	Introduction to Interpersonal Communications	3
PSYX 100S	Intro to Psychology	3
Total Hours		68

Minimum Required Grade: C-

Registered Nursing

Linda Barnes, Nursing Program Director

The Associate of Science in Nursing (A.S.N.) requires four semesters of full-time study. Applicants to the program must have completed all pre-nursing prerequisites, have a cumulative GPA of at least 2.75 (last 60 credits only), and have received a B or better in BIOH 201/202.

Admission to the program requires completion of the application which can be obtained on the Missoula College Health Professions webpage (<http://mc.umt.edu/health>). The number of students accepted into the A.S.N. program is limited to 18 students in Autumn semester and 18 students in Spring semester. All candidates who meet the admission requirements will be considered. Students learn Registered Nursing skills through independent study, lectures, simulations, demonstrations, and advanced skills practice in the nursing lab. Under instructor supervision and preceptorship, students also provide patient care in a variety of acute care settings.

The A.S.N. degree program is approved by the State Board of Nursing (301 South Park, Helena, MT 59601). The program is accredited by the Accreditation Commission for the Education in Nursing (ACEN) (3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326).

Students must provide proof of having met the following requirements to the Nursing Program Administrative Associate on or before the first day of class:

1. Two step Tuberculosis testing using the PPD (Purified Protein Derivative) or chest x-ray (positive results will require a physician's letter before a student can continue in clinical settings);
2. Hepatitis B vaccine and titer. The three injection Hepatitis B series must be started on or before acceptance into the program so the series is completed by the time clinical begins;
3. Measles, mumps, and rubella (MMR) immunization (for those born before 1956, it is not required to have an MMR, but a titer must be completed);
4. Influenza Vaccination;
5. Varicella (Chicken Pox) Vaccination;
6. Basic Life Support (BLS) training Healthcare Provider;
7. Criminal Background Check, including Sexual Offender Registry

Many licensing bodies and employing institutions in health care have increasingly stringent requirements and background checks as conditions for licensing or employment. If a student has concerns about this, she/he should contact the licensing board for nursing (dlibsdnur@mt.gov).

Associate of Science - Registered Nursing

Missoula College

Degree Specific Credits: 72

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: Students must pass all NRSNG courses with a minimum grade of a B. It is highly recommended that students have completed BIOH 211N/BIOH 212N, SOCI 101S, PSYX 100S, BIOM 250N, and BIOM 251 prior to admission to the program.

Summary

Registered Nursing	65-68
Writing Requirement	3
Mathematics Requirement	3-4
Total Hours	71-75

Registered Nursing

Rule: All courses required

Note: Students must pass all nursing (rubric NRSNG) courses with a minimum grade of a B.

BIOH 201N	Human Anat Phys I (equiv 301)	4
BIOH 211N	Human Anat Phys II (equiv 311)	4
BIOM 250N	Microbiology for Hlth Sciences	3
BIOM 251	Microbiology Hlth Sciences Lab	1
CHMY 121N	Introduction to General Chemistry	3
CHMY 122	Introduction to General Chemistry Lab	1
NRSNG 230	Nursing Pharmacology	3
NRSNG 231	Nursing Pharmacology Lab	2
NRSNG 232	Foundations of Nursing	3
NRSNG 233	Foundations of Nursing Lab	3
NRSNG 234	Adult Nursing I	3
NRSNG 235	Adult Nursing I Clinical	2
NRSNG 236	Health and Illness of Maternal Nursing	2
NRSNG 237	Health and Illness of Maternal Nursing Clinical	1
NRSNG 244	Adult Nursing II	3
NRSNG 245	Adult Nursing II Clinical	2
NRSNG 246	Health and Illness of Child and Family Nursing	2
NRSNG 247	Health and Illness of Child and Family Nursing Clinical	1
NRSNG 254	Mental Health Concepts	2-3
NRSNG 255	Mental Health Concepts Clinical	1
NRSNG 256	Pathophysiology	3
NRSNG 259	Adult Nursing III	3
NRSNG 260	Adult Nursing III Lab	1
NRSNG 261	Adult Nursing III Clinical	2
NRSNG 266	Managing Client Care for the Registered Nurse	2-4
NRSNG 267	Managing Client Care for the Registered Nurse Clinical	2
PSYX 100S	Intro to Psychology	3
SOCI 101S	Introduction to Sociology	3
Total Hours		65-68

Minimum Required Grade: C-

Writing Requirement

Rule: All courses required

Note: Students who have completed WRIT 101, greater than ten years prior to applying to the Missoula College must take the Writing Placement test. If the score on the test places the student in WRIT 101, the transfer credits will be accepted for the nursing program requirements. If the student places below the required standard, then they shall remediate as needed prior to application to the nursing program.

All students need to take WRIT 101 for the nursing program

WRIT 101	College Writing I	3
Total Hours		3

Minimum Required Grade: C-

Mathematics Requirement

Rule: Must complete one of the following courses

Note: M 121 is the recommended math. Courses that substitute for M 121 can be Probability and Linear Math, Pre-calculus with Algebra, or Pre-calculus with Trig, or Calculus. Mathematics and Writing prerequisite coursework should have been completed no more than 10 years prior to application to any specific health professions program. If mathematics and writing prerequisite coursework is greater than 10 years old, the student should take the writing and mathematics placement exams administered by the college (e-write and ALEX respectively). If the student places into a comparable level to the specific course in question then that course shall be accepted as a valid prerequisite for the intended program. If the student places below the required standard then they shall remediate as needed prior to application to the nursing program.

Select one of the following:	3-4
M 115	Probability and Linear Mathematics
M 121	College Algebra (recommended)
M 151	Precalculus
M 171	Calculus I
Total Hours	3-4

Minimum Required Grade: C-

Respiratory Care A.A.S.

Nicholas Arthur, Program Director

Respiratory Care is an allied health specialty. It is an important part of modern medicine and health care. Respiratory Care encompasses the care of patients with respiratory problems in the hospital, clinic, and home.

Respiratory therapists, as members of a team of health care professionals, work to evaluate, treat, and manage patients of all ages with respiratory illnesses and other cardiopulmonary disorders in a wide variety of clinical settings. Respiratory therapists must behave in a manner consistent with the standards and ethics of all health care professionals. In addition to performing respiratory care procedures, respiratory therapists are involved in clinical decision-making (such as patient evaluation, treatment selection, and assessment of treatment efficacy) and patient education. The scope of practice for respiratory therapist includes, but is not limited to:

- acquiring and evaluating clinical data;
- assessing the cardiopulmonary status of patients;
- performing and assisting in the performance of prescribed diagnostic studies, such as drawing blood samples, performing blood gas analysis, pulmonary function testing, and applying adequate recording electrodes using polysomnographic techniques;
- utilizing data to assess the appropriateness of prescribed respiratory care;
- establishing therapeutic goals for patients with cardiopulmonary disease;
- participating in the development and modification of respiratory care plans;
- case management of patients with cardiopulmonary and related diseases;
- initiating ordered respiratory care, evaluating and monitoring patients' responses to such care, modifying the prescribed respiratory therapy

and cardiopulmonary procedures, and life support endeavors to achieve desired therapeutic objectives;

- initiating and conducting prescribed pulmonary rehabilitation;
- providing patient, family, and community education;
- promoting cardiopulmonary wellness, disease prevention, and disease management;
- participating in life support activities as required; and
- promoting evidence-based medicine, research, and clinical practice guidelines.

Starting salaries are excellent with premiums paid for evening, night, and weekend shifts. Jobs are plentiful throughout the United States. Graduates are eligible to take the credentialing examinations administered by the National Board for Respiratory Care (NBRC) which lead to the Registered Respiratory Therapist (RRT) credential. Licensure requirements in the state of Montana also are met by successful completion of the NBRC Entry Level (CRT) examination.

The goal of the program is, "To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) domains of respiratory care practice as performed by registered respiratory therapists (RRTs)" CoARC standard 3.01.

The program is 4 ½ semesters in length which includes the AA prerequisite courses and a summer session. The Respiratory Care Program at The University of Montana Missoula College, is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com) (<http://www.coarc.com>), 1248 Harwood Road, Bedford, Texas 76021-4244. Graduates receive the degree of Associate of Applied Science in Respiratory Care.

Students accepted to the program are required to rotate to clinical sites outside the Missoula area on a periodic basis. These rotations take place during the spring semester, summer session and autumn semester of the second year. These sites may include, but are not limited to: Kalispell, Ronan, Polson, Butte, Billings, Bozeman, Hamilton, Helena, Coeur d'Alene and Lewiston, Idaho and Spokane, Washington. Transportation and housing are the student's responsibility.

Associate of Applied Science - Respiratory Care

Missoula College

Degree Specific Credits: 83

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: It is preferred that students have the prerequisite core completed by the end of the semester in which they intend to apply to the program (i.e. applying to the program in the spring and completing the core by the end of that spring semester.) However, those students who anticipate completing the core by the end of the summer semester are still encouraged to apply in the spring and may be granted provisional acceptance. Computer competency must be demonstrated by taking CAPP 120 or may be challenged by testing out.

Summary

Pre- Respiratory Care Prerequisite Courses	31
Respiratory Care Courses	52
Total Hours	83

Pre- Respiratory Care Prerequisite Courses

Rule: All courses required

Note: Must have completed or be in the process of completing when applying to the program. A minimum GPA of 2.75 for prerequisite courses is required in order to apply to the program.

BIOH 201N	Human Anat Phys I (equiv 301)	4
BIOH 211N	Human Anat Phys II (equiv 311)	4
CAPP 120	Introduction to Computers	3
M 115	Probability and Linear Mathematics	3
PSYX 100S	Intro to Psychology	3
SCN 175N	Integrated Physical Science I	3
WRIT 121	Intro to Technical Writing	3
Total Hours		23

Minimum Required Grade: C-

Respiratory Care Courses

Rule: All courses required

AHRC 101	Communication Management	1
AHRC 115	Blood Gas Analysis	2
AHRC 129	Patient Care & Assessment	4
AHRC 130	Respiratory Care Lab IB	1
AHRC 131	Resp Care Fundamentals	5
AHRC 133	Resp Care Pharmacology	3
AHRC 150	Respiratory Care Lab I	1
AHRC 231	Resp Crit Care	4
AHRC 232	Resp Path & Disease	3
AHRC 235	Cardiopulm Anat & Phys	3
AHRC 243	Perinat & Pediat Res Care	3
AHRC 250	Respiratory Care Lab II	2
AHRC 252	Respiratory Care Review	2
AHRC 255	Clinical Experience I	5
AHRC 260	Resp Care Lab III	1
AHRC 265	Clinical Experience II	5
AHRC 270	Resp Care Lab IV	1
AHRC 275	Clinical Exp III	6
Total Hours		52

Minimum Required Grade: B-

Surgical Technology A.A.S.

Students in the program are educated to be Surgical Technologists who work as part of the surgical team to ensure the operative procedure is conducted under optimal conditions. The ST is responsible for three phases (preoperative, intraoperative, and postoperative) of patient

care with minimal direction. All surgical team members must adhere to the principles of asepsis and the practice of sterile technique. The ST normally functions in a sterile capacity by passing instruments, equipment and supplies to the surgeon during the surgical procedure but may also perform many non-sterile duties throughout the workday.

Students admitted to the University of Montana enter as Associate of Arts (AA) General Studies majors with an emphasis in the program of their choice. Students must select the specific prerequisite courses required for their chosen area of study after meeting with the program advisor. Students must apply to the program by October 1. Students may apply while enrolled in the A.A. prerequisite courses with acceptance to the program to be determined after the Autumn semester grades are finalized. BIOH 201N/202N, Anatomy and Physiology I, and lab, must be passed with a grade of B (3.0) and be a face-to-face course. The program-specific courses begin spring semester.

Once accepted to the program, a student must complete each Surgical Technology-specific course (those courses with an AHST) with a minimum grade of 'C' (80%) in order to continue in the ST program. Course grading scales may vary. If a student does not pass the required courses, he/she will not be able to continue in the program and will need to apply for readmission. If a student is re-admitted, he/she will be required to complete skills labs, AHST 115 and AHST 215, to ensure sterile technique skills are acceptable for patient care. A student may take any required course a maximum of two (2) times. A student may apply to the program a maximum of two (2) times.

A student will become a member of the Association of Surgical Technologists (www.ast.org) during the first year in the program. A student anticipating program completion will write the National Certification Exam prior to graduation. A student who successfully completes the ST program is awarded an A.A.S. degree in Surgical Technology. The credential of Certified Surgical Technologist (CST) will be awarded to a student upon passing the National Certification Exam and graduation from the ST program. The credential of Certified is awarded by the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Students are required to rotate sites during the clinical portion of their education. During the last semester of the program, internships may be outside the Missoula area. Transportation and housing are the student's responsibility. Prior to entering a healthcare facility for clinical experiences, a student will be required to submit a background check. Many healthcare facilities have increasingly stringent requirements. A student could be refused entry into a clinical facility based on information disclosed in a background check. If this is a concern for you, please consult the Program Director. If a student is denied agency access based on the background check, there will be no placement at an alternate site, and the subsequent inability of the student to complete the clinical education will result in inability to continue in the Surgical Technology program.

The University of Montana Missoula College Surgical Technology Program also has Outreach campuses in Butte and Billings. The Butte site is the Montana Tech of the University of Montana Highlands College campus in collaboration with St James Healthcare. The Billings site is the Montana State University-Billings City College campus in collaboration with St Vincent Healthcare and Billings Clinic. Students at those sites take the equivalent prerequisite courses on their respective campuses. The Surgical Technology-specific courses begin spring semester. Students must apply to the ST program by October 1. Students may apply while enrolled in the prerequisite courses with acceptance to the

program to be determined after fall grades are finalized. The classroom portion of the ST program curriculum is delivered in web-based format using the Moodle course delivery system from the Missoula campus. Lab and clinical courses are conducted on each Outreach campus. Outreach students are required to travel to Missoula to write the National Certification Exam and to participate in Commencement exercises. Prospective students may contact the Health Professions' Office at 406-243-7868 for more information regarding the ST Program on the Butte and Billings campuses. Please refer to the specific course catalogs on the Butte and Billings campuses for prerequisite requirements.

The ST program is accredited by the Committee on Accreditation of Allied Health Education Programs (CAAHEP), 25400 U. S. Highway 19 North; Suite 158; Clearwater, FL 33763, 727-21002350, www.caahep.org (http://www.caahep.org).

Associate of Applied Science - Surgical Technology

Missoula College

Degree Specific Credits: 70

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Note: It is preferred that students have the prerequisite core completed by the end of the semester in which they intend to apply to the program (i.e. applying to the program in the fall semester and completing the core by the end of that fall semester.) CAPP 120 may be challenged by testing out. WRIT 101 or WRIT 121 only one is required. BIOM 250N and AHMS 270E may be taken prior to applying.

Summary

Surgical Technology Prerequisite Courses	23
Surgical Technology Courses	47
Total Hours	70

Surgical Technology Prerequisite Courses

Rule: All courses required

Note: WRIT 101 can be taken instead of WRIT 121; BIOH 201N/BIOH 202N must be passed with a minimum of a B

AHMS 144	Medical Terminology	3
BIOH 201N	Human Anat Phys I (equiv 301) (must be passed with a minimum of a B)	4
CAPP 120	Introduction to Computers	3
M 105	Contemporary Mathematics	3
PSYX 100S	Intro to Psychology	3
WRIT 121 or WRIT 101	Intro to Technical Writing College Writing I	3
Total Hours		19

Minimum Required Grade: C-

Surgical Technology Courses

Rule: All courses required

AHMS 270E	Medical Ethics	3
AHST 101	Introduction to Surgical Techn	3
AHST 115	Surgical Lab I	2
AHST 154	Surgical Pharmacology	3
AHST 200	Operating Room Techniques	5
AHST 201	Surgical Procedures I	4
AHST 215	Surgical Lab II	2
AHST 250	Surgical Clinical I	4
AHST 251	Surgical Clinical II	5
AHST 298	Surgical Internship	5
BIOH 211N	Human Anat Phys II (equiv 311)	4
BIOM 250N	Microbiology for Hlth Sciences	3
Total Hours		43

Minimum Required Grade: C

Industrial Technology Department

William Hillman, Chair

The mission of the Department of Industrial Technology is to provide the regional workforce with credentialed, skilled, and competent entry-level technicians and to be responsive to emerging workforce needs. The department encourages the development of teamwork and interpersonal communication skills required in the workplace. It also stresses the importance of a strong work ethic and the value of continuing education and lifelong learning. The instruction for the Department of Industrial Technology Certificate of Applied Science and Associate of Applied Science (A.A.S.) degree programs are primarily delivered at the West Campus at 2795 37th Avenue, Missoula MT 59804. Some instruction is delivered at the River Campus or Mountain Campus.

All students admitted to Industrial Technology programs are required to submit writing placement scores immediately upon admission to the Missoula College or make arrangements to take these assessments as soon as possible. Thereafter, students needing to take a writing assessment should contact the Academic Support Center at 406-243-7826 to schedule an appointment to take the placement assessments as soon as possible. Students who live outside of the Western Montana area may take a writing assessment at their local community college.

Undergraduate

- Diesel Technology A.A.S. (p. 389)
- Sustainable Construction Technology A.A.S. (p. 392)
- Welding Technology A.A.S. (p. 394)

Undergraduate Certificates

- Facility Management Engineering Certificate of Applied Science (p. 389)
- Heavy Equipment Operation Certificate of Applied Science (p. 390)
- Precision Machine Technology Certificate of Applied Science (p. 391)
- Recreational Power Equipment Certificate of Applied Science (p. 392)

- Green Building Certificate (p. 393)
- Carpentry Certificate of Applied Science (p. 393)
- Construction Management Certificate of Applied Science (<http://catalog.umt.edu/colleges-schools-programs/missoula-college/industrial-technology/cert-construction-management>)
- Welding Technology Certificate of Applied Science (p. 393)
- Construction Helper Certificate (p. 389)
- HVAC Technician Certificate (p. 390)
- Precision Machine Technology Certificate (p. 391)

Construction Helper C.T.S.

This one-semester certificate program is designed to prepare candidates for entry-level positions across the construction industry. Designed to make students job-site ready, the program covers job-site safety as well as a hands on introduction to site and foundation work and basic carpentry.

Certificate of Technical Studies - Construction Helper

Missoula College

Degree Specific Credits: 16

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Required Courses	16
Total Hours	16

Required Courses

Rule: All courses required

CSTN 120	Carpentry Bscs & Rough-In Frmg	5
CSTN 122	Beginning Carpentry Lab	5
CSTN 171	Site Prep, Found, Concrete Ins	3
NRGY 120	Industrial Safety and Rigging	3
Total Hours		16

Minimum Required Grade: C-

Diesel Technology A.A.S.

Jim Headlee, Director

The mission of the Diesel Technology Program is to provide the regional workforce with credentialed, skilled and competent diesel technicians and to be responsive to emerging workforce needs.

Students in the Diesel Technology program train to be diesel mechanics that repair diesel-powered trucks and heavy equipment. Students study hydraulics, electrical systems, fuel systems, power trains, air conditioning, brakes and suspension, engine theory, and engine diagnosis, beginning with basic principles and proceeding to an advanced level of system technology. Along with these core courses, students take classes in welding, machining, computers, communications, and math.

Credit for independent study is available to those desiring additional instruction in diesel mechanics. Students who complete the program successfully are awarded the Associate of Applied Science degree.

The program often has a waiting list. Prospective students are encouraged to apply one year prior to anticipated school attendance. Contact the Jim Headlee, Program Director, at 406-243-7648 or Jim.Headlee@umontana.edu for more information.

Associate of Applied Science - Diesel Technology

Missoula College

Degree Specific Credits: 64

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Required Courses	64
Total Hours	64

Required Courses

Rule: All courses required

CAPP 120	Introduction to Computers	3
COMX 102	Interprsnl Skills in Workplace	1
DST 120	Electrical Systems	8
DST 128	Engine Service I	4
DST 135	Power Trains	7
DST 221	Brakes Suspn and Undercarr	6
DST 225	Hydraulics	6
DST 229	Engine Service II	7
DST 230	Air Conditioning	3
DST 231	Fuel Systems	5
DST 235	Advanced Power Trains	2
M 111	Technical Mathematics	3
MCH 115	Related Metals Processes III	3
WLDG 101	Welding Fund Auto Tech/Diesel	2
WLDG 139	Welding Maint & Repair -Diesel	1
WRIT 121	Intro to Technical Writing	3
Total Hours		64

Minimum Required Grade: C-

Facility Management Engineering C.A.S.

The mission of the Facility Management Engineering Certificate program is to provide the regional workforce with credentialed, skilled, and competent facility management professionals and to be responsive to emerging workforce needs.

Students in the Facility Management Engineering program are trained as facility management professionals capable of maintaining commercial buildings. Subject matter in the program includes plumbing, electricity, carpentry, and heating/air conditioning. Students learn physical and electrical theories that enable them to understand building systems. In addition, they study landscape maintenance, pool care, computers, and boiler operation. Water treatment is discussed in both the pool and boiler courses. The program introduces current environmental and energy problems that can be reduced through efficient building operation. It also encourages resource development, teamwork, and interpersonal skills required on the job.

Students are awarded a Certificate of Applied Science upon successfully completing the program. Contact William Hillman, Program Director, at 406-243-7645 or email (william.hillman@mso.umt.edu) for more information.

Certificate of Applied Science - Facility Management

Missoula College

Degree Specific Credits: 33

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Required Courses	33
Total Hours	33

Required Courses

Rule: All courses required

CAPP 120	Introduction to Computers	3
COMX 102	Interprsnl Skills in Workplace	1
FME 122	Electricity	6
FME 123	Carpentry	6
or CSTN 120	Carpentry Bscs & Rough-In Frmg	
FME 127	High/Low Pressure Boilers	3
FME 128	Plumbing & Maintenance	3
FME 130	Heating & Air Conditioning	6
M 111	Technical Mathematics	3
WRIT 121	Intro to Technical Writing	3
Total Hours		34

Minimum Required Grade: C-

Heavy Equipment Operation C.A.S.

Joseph Janssen, Director

The mission of the Heavy Equipment Operation Program is to provide the regional workforce with credentialed, skilled and competent heavy equipment operators and to be responsive to emerging workforce needs. The Heavy Equipment Operation Program provides students with a basic

understanding of fundamental machine functions and is designed to develop apprentice-level skills in the operation of heavy equipment.

Students are trained to safely and properly operate and maintain a variety of heavy equipment, including crawler-tractors, graders, scrapers, front-end loaders, excavators, backhoes, and dump trucks. Students develop an understanding of basic surveying techniques, receive extensive training in safety regulations and procedures, and learn how to handle controls precisely and judge distances accurately. The program also promotes an awareness of potential job site difficulties and allows students to gain knowledge of the work ethic expected by employers in the construction industry.

A Certificate of Applied Science is awarded upon successful completion of the program.

This is an Autumn Semester entry program, and enrollment is limited. Prospective students are encouraged to apply early. Contact Joseph Janssen, Program Director, at 406-243-7643 or email for more information.

Certificate of Applied Science - Heavy Equipment Operation

Missoula College

Degree Specific Credits: 31

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

Required Courses	31
Total Hours	31

Required Courses

Rule: All courses required.

CAPP 120	Introduction to Computers	3
COMX 102	Interprsnl Skills in Workplace	1
HEO 146	Safety & Basic Controls	5
HEO 150	Job Simulation	6
HEO 151	Service & Maintenance	2
HEO 153	Const. Theory & Spec. Equip.	5
M 111	Technical Mathematics	3
MCH 112	Related Metals Processes I	1
SRVY 108	Construction Surveying	2
WRIT 121	Intro to Technical Writing	3
Total Hours		31

Minimum Required Grade: C-

HVAC Technician Certificate

Students in this 12-credits, 200-hour program will be introduced to the fundamentals of heating, ventilating, and air conditioning. The program covers heating and refrigeration cycles, gas furnaces, refrigerants, system evacuation and charging, as well as meters and components