

# Table of Contents

Academic Calendar .....2

Mission, Operations, Facilities .....4

Student Services and Activities .....8

College Regulations .....26

Academic Requirements .....40

Programs .....52

Course Descriptions .....192

Continuing Education Center .....272

Boards, Personnel, Advisory Committees.....274

Index .....287

Campus Map ..... Inside Back Cover

*For a world of information about  
Flathead Valley Community College,  
visit our home page at [www.fvcc.edu](http://www.fvcc.edu)*

**FVCC reserves the right to change its policies and fees, and revise curricula in this catalog at any time during the period this publication is in effect. For the most current revisions, visit our website at: [www.fvcc.edu](http://www.fvcc.edu).**

*This catalog is published by Flathead Valley Community College as a guide for students, faculty and others. Students are expected to be familiar with the college regulations and information which are set forth in this publication. This catalog is effective beginning fall 2014. Each student is entitled to one copy of the catalog at time of initial enrollment.*

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*Accommodations for persons with disabilities can be provided upon request by calling (406) 756-3881. Any qualified student with a disability who believes that an auxiliary aid is necessary for participation in any course activity or degree program is strongly urged to indicate a need for services to the Advocate for Students with Disabilities a minimum of six weeks prior to the beginning of the academic semester. This will provide sufficient time to assess student need and obtain any necessary auxiliary aid. For more information, please call (406) 756-3881 (voice or TTY).*

*Flathead Valley Community College does not discriminate on the basis of race, color, national origin, sex, age or handicap in admission or access to, or treatment or employment in its educational programs or activities. Inquiries concerning Title VI, Title IX and Section 504 may be referred to: Vice President of Instruction and Student Services, Blake Hall, Rm. 136, 777 Grandview Drive, Kalispell, MT 59901, (406) 756-3894; or the Montana Human Rights Commission, 1236 Sixth Avenue, P.O. Box 1728, Helena, MT 59624, (406) 444-2884/1-800-542-0807.*

# Academic Calendar

2015-2016

## Fall Semester 2015

Aug 7 (F)	Tuition Due: Early Registered Students
Aug 10-Aug 26**	General Registration: Running Start Students
Aug 11-Aug 26	General Registration: New and Returning Students
Aug 19-21 (W-F)	Pick up Reserved Textbooks
Aug 24 (M)	College In-service (College and ECC Closed)
Aug 25 (T)	ECC Closed
Aug 27 (Th)	Semester Begins
Sept 2 (W)	Last Day to Register or Add Full-Semester Classes without Instructor's Signature
Sept 7 (M)	Labor Day Holiday (College & ECC Closed)
Sept 8* (T)	Last Day to Return Textbooks for a Full Refund in College Bookstore
Sept 10 (Th)	Last Day to Add Full-Semester Classes (Instructor's Permission Required)
Sept 10 (Th)	Last Day to Drop Full-Semester Classes and Receive a Partial Refund
Sept 17 (Th)	Last Day to Drop Full-Semester Classes without a "W" grade recorded
Oct 12 (M)	Columbus Day (Classes will Meet)
Oct 16 (F)	ECC Closed
Nov 11 (W)	Veterans Day (Classes will Meet)
Nov 13 (F)	Graduation Applications Due
Nov 19 (Th)	Last Day to Drop or Request/Rescind an Audit Grade for Full-Semester Classes
Nov 20 (F)	Early Online Registration Begins, Spring 2016: Limited Student Access
Nov 20 (F)	Early Registration Begins, Spring 2016: Sophomores
Nov 23 (M)	Early Registration Begins, Spring 2016: Returning Students
Nov 26, 27 (Th, F)	Thanksgiving Holiday (No Classes; College & ECC Closed)
Dec 1 (T)	Early Registration Begins, Spring 2016: New Students
Dec 8** (T)	Early Registration Begins, Spring 2016: Running Start Students
Dec 10-11, 14-17*	Textbook Sell Back in College Bookstore
Dec 14-17 (M-Th)	Finals
Dec 17 (Th)	Textbook Rentals Due in Bookstore
Dec 17 (Th)	Semester Ends
Dec 24-Jan 1	Semester Break (College & ECC Closed)

\*Certain conditions must be met. See the College Bookstore for further details.

\*\* Dates are subject to change.

## Spring Semester 2016

Jan 4 (M)	General Registration Begins: All Students
Jan 4-15	Interim Session
Jan 7 (Th)	Tuition Due: Early Registered Students
Jan 13-15 (W-F)	Pick up Reserved Textbooks
Jan 18 (M)	Martin Luther King Day Holiday (College & ECC Closed)
Jan 19 (T)	College In-service (College Closed from 8 - 10 a.m.; ECC Open)
Jan 21 (Th)	Semester Begins
Jan 27 (W)	Last Day to Register or Add Full-Semester Classes without Instructor's Signature
Feb 3* (W)	Last Day to Return Textbooks for a Full Refund in College Bookstore
Feb 4 (Th)	Last Day to Add Full-Semester Classes (Instructor's Permission Required)
Feb 4 (Th)	Last Day to Drop Full-Semester Classes and Receive a Partial Refund
Feb 10 (W)	Last Day to Drop Full-Semester Classes without a "W" grade recorded
Feb 15 (M)	Presidents' Day Holiday (No Classes; College & ECC Closed)
Feb 26 (F)	Graduation Applications Due
Mar 1 (T)	College for a Day (No Classes between 8:00 a.m. and 4:50 p.m.; College & ECC Open)
Mar 28-April 1 (M-F)	Spring Break (No Classes)
April 5 (T)	Early Online Registration Begins, Summer 2016: Limited Student Access
April 5 (T)	Early Registration Begins, Summer 2016: New and Returning Students
April 15 (F)	Last Day to Drop or Request/Rescind an Audit Grade for Full Semester Classes
April 18 (M)	Early Online Registration Begins, Fall 2016: Limited Student Access
April 18 (M)	Early Registration Begins, Fall 2016: Sophomores
April 19 (T)	Early Registration Begins, Fall 2016: Returning Students
April 27 (W)**	Early Registration Begins, Summer 2016: Running Start Students
May 12-13, 16-19	Textbook Sell Back in College Bookstore
May 16-19 (M-Th)	Finals
May 19 (Th)	Textbook Rentals Due in Bookstore
May 19 (Th)	Semester Ends
May 20 (F)	Commencement

\*Certain conditions must be met. See the College Bookstore for further details.

\*\* Dates are subject to change.

**Summer Semester 2016**

May 26-27 (Th, F)	Pick up Reserved Textbooks for Sessions A and B
May 27 (F)	Tuition Due: Early Registered Students
May 30 (M)	Memorial Day Holiday (College & ECC Closed)
May 31-Jul 1	Session A
May 31-Aug 5	Session B
June 2* (Th)	Last Day to Return Textbooks with Receipt for a Full Refund in College Bookstore for Session A and B
June 6 (M)	Last Day to Register or Add Full-Semester Classes without Instructor's Signature--Session B
June 14 (T)	Last Day to Add Full-Semester Classes (Instructor's Permission Required)--Session B
June 14 (T)	Last Day to Drop Full-Semester Classes and Receive a Refund--Session B (See Refund Schedule)
June 14 (T)	Last Day to Drop Full-Semester Classes without a "W" grade recorded--Session B
Jul 4 (M)	Fourth of July Holiday Observed (College & ECC Closed)
Jul 5-Aug 5	Session C
Jul 6* (W)	Last Day to Return Textbooks with Receipt for a Full Refund in College Bookstore--Session C Only
Jul 18 (M)	Graduation Applications Due
Jul 20 (W)	Last Day to Drop Classes or Request/ Rescind an Audit Grade for Full-Semester Classes--Session B
Aug 3-5* (W-F)	Textbook Sell Back in College Bookstore
Aug 5 (F)	Textbook Rentals Due in College Bookstore by 3:00 p.m.
Aug 5 (F)	Semester Ends

\*Certain conditions must be met. See the College Bookstore for further details.

\*\* Dates are subject to change.

## *Philosophy*

Community colleges are the embodiment of the nation's democratic ideal of opportunity for all and are dedicated to the belief that free citizens succeed through access, effort and ability. Flathead Valley Community College fulfills that democratic ideal of opportunity through a philosophy of providing open-door admissions, education in the local community at an affordable cost, continued assistance and guidance to students and commitment to the comprehensive community college concept.

Flathead Valley Community College, as an integral part of the community it serves, works as a partner with local governments, businesses, industries and other educational providers to promote economic, cultural and social development.

The Flathead Valley Community College Board of Trustees is committed to bringing together the resources necessary to implement these ideals for the people of Flathead and Lincoln counties and Northwest Montana.

## *Mission*

Flathead Valley Community College promotes excellence in lifelong learning, focusing on student success and community needs.

## *Core Themes*

FVCC has identified four core themes that individually manifest essential elements of its mission. Each element serves as an important component of lifelong learning. Collectively, the core themes encompass lifelong learning, supporting FVCC's role as a comprehensive community college.

The four core themes are

1. Transfer preparation;
2. Workforce preparation;
3. Developmental education; and
4. Community education.

## *About FVCC*

Flathead Valley Community College (FVCC) is located in the northwest corner of Montana and is surrounded by pristine alpine lakes and rivers and panoramic views of Glacier National Park and the spectacular Rocky Mountains. Established in 1967, FVCC is the largest of Montana's three comprehensive two-year public community colleges. The main campus, located in Kalispell, and the Extended Learning Division, housed in Libby, serve a population of over 110,000 distributed over 5.6 million acres, an area larger than the state of Massachusetts. Both campuses provide maximum access for students with disabilities.

Accredited by the Northwest Commission on Colleges and Universities, FVCC prides itself on providing the value of a private education at an affordable cost. The college excels in preparing students to transfer to colleges and universities in Montana and beyond through its highly qualified faculty and offerings of Associate of Arts and Associate of Science two-year degrees. FVCC also offers Associate of Applied Science degrees and certificates in over 50 career and technical fields that prepare students to enter rewarding careers immediately following graduation.

FVCC provides opportunities for area high school students to enroll in dual-credit courses through the Running Start program, for individuals seeking advanced degrees through partnerships with Montana four-year colleges and universities and for community members of all ages through affordable and enriching non-credit classes.

During fiscal year 2014, FVCC awarded 1,778 students \$11,891,296 in financial assistance. The college maintains a small classroom environment with the average student to faculty ratio of 18 to one, enabling faculty to provide personalized attention to every student.

## *History*

On April 1, 1967, the voters of Flathead County approved the creation of a community college district in accordance with Montana laws pertaining to community colleges. In 1983, the voters of Lincoln County agreed to create a community college service region of FVCC to serve the residents of Lincoln County. In 1985, the Lincoln County Campus was accredited by the Northwest Association of schools and colleges as an extension campus.

Following the successful bond election in 1988 to construct a new campus, the Kalispell Campus was dedicated in fall 1990. In 2001, the college acquired an additional 48 acres adjacent to its present site.

In May 2001, FVCC's Lincoln County Campus acquired the United States Forest Service building in Libby and moved to its new 27,400 square-foot facility. The facility was dedicated in January 2002.

With the successful passage of a \$15.8 million bond election in December 2002, FVCC's Kalispell Campus responded to record enrollments by planning to construct three new buildings. In September 2004, Lincoln County Campus opened the RUS Distance Learning Classroom and Lab, expanding educational opportunities to students in Eureka and Troy.

## 2015-2016

In September 2005, the college broke ground on three new buildings: Occupational Trades Building completed in January 2007; Arts and Technology Building completed in August 2007; and Early Childhood Center completed in January 2008.

In January 2006, the college completed a land transaction, trading 25 acres of its northernmost property for 109 acres, a payment of \$300,000 and an additional \$250,000 for easements. The transaction nearly doubled the size of the Kalispell campus from 109 acres to 209 acres. Another seven-acre parcel was added in 2010, increasing the total campus acreage to 216.

In 2011, the FVCC Foundation received a \$4 million gift from the Broussard family to construct a new nursing and health science building in memory of Rebecca Chaney Broussard, a former nurse and philanthropist. With the help of the FVCC and greater community, the FVCC Foundation raised the additional \$1 million needed to complete the construction of the building. In April 2013, the college dedicated the Rebecca Chaney Broussard Center for Nursing and Health Science, the first privately-funded building on the FVCC campus.

In 2013, FVCC accepted a 27-acre donation of land on Foothill Road valued at \$420,000 from an anonymous resident in Bigfork. The property, which borders Montana State Trust Land and is close to the Jewel Basin hiking area, was given to the college to be used for educational purposes, including instruction, research and activities consistent with FVCC's mission.

### *Governance*

Flathead Valley Community College is governed by a seven-member Board of Trustees. The trustees are elected by the citizens of Flathead County. Members serve three-year terms on a rotating basis with elections held yearly on the Tuesday following the first Monday in May. The trustees are charged with the primary responsibilities of setting college policies and selecting a president to administer the operations of the institution.

FVCC operates under the general supervision of the Montana University System's Board of Regents.

### *Finance*

#### **All Funds**

Flathead Valley Community College receives funding from federal, state and local sources. The total budget authority is based on projected student enrollments and determined according to a formula. State of Montana appropriations, state and federal grants and local sources (i.e. county taxes, student tuition and other income) provide funding for FVCC.

## Mission, Operations, Facilities

### *Continuing Education*

Non-credit continuing education classes and activities are self-supportive. Student and participant fees are used to pay the salaries of instructors. A \$1 million dollar adult education levy supplies overhead costs for non-credit programming in Flathead and Lincoln counties.

### *Accreditation*

Flathead Valley Community College is accredited by the Northwest Commission on Colleges and Universities, and is reviewed on a 7-year cycle. The last comprehensive review and reaffirmation occurred in spring of 2012.

Four FVCC Career and Technical programs have been awarded specialized accreditations.

1. Surgical Technology AAS is accredited through the Commission on Accreditation of Allied Health Programs (CAAHEP), in cooperation with the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC-STSA).
2. Medical Assistant AAS is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Curriculum Review board of the American Association of Medical Assistants Endowment (AAMAE).
3. Paramedicine AAS is accredited through the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions through the Commission of Accreditation of Allied Health Education.
4. Physical Therapist Assistant AAS is accredited by the Commission on Accreditation in Physical Therapy Education.

Three FVCC Career and Technical programs have been approved by State Boards.

1. Surveying AAS has been approved by the Montana State Board of Professional Land Surveyors.
2. Practical Nursing AAS has been approved by the Montana State Board of Nursing. Graduates are eligible to take the National Council Licensure Examination (NCLEX-PN).
3. Registered Nursing ASN has been approved by the Montana State Board of Nursing. Graduates are eligible to take the National Council Licensure Examination (NCLEX-RN).

FVCC is an Accredited Test Facility for the American Welding Society (AWS ATF).

### *Memberships*

FVCC is an institutional member of various organizations, including American Association of Community Colleges, Association of Community College Trustees, Montana Association of Community College Trustees, Mountain States Association of Community Colleges, Association of Student Financial Aid Administrators, Kalispell Chamber of Commerce, Columbia Falls Chamber of Commerce, Bigfork Chamber of Commerce, Whitefish Chamber of Commerce, Lakeside and Somers Chamber of Commerce, Libby Area Chamber of Commerce, and Eureka Chamber of Commerce.

## *Facilities*

### **Flathead County Campus**

Flathead Valley Community College, situated on 216 acres, provides students an outstanding education in cutting-edge facilities. Architecture for the campus emphasizes the natural beauty of the surrounding area with panoramic views of Glacier National Park, Whitefish Mountain Resort at Big Mountain and the expansive Columbia Mountain Range.

In marked contrast to its breathtaking surroundings, the campus provides students with an intimate educational environment. Individual classrooms were strategically planned for approximately 30 students to continue the college's tradition of small classes and personalized attention. Classrooms and labs are integrated throughout the campus and situated within close proximity to faculty offices.

The campus provides maximum access for persons with disabilities throughout its facilities.

### **Blake Hall (BH)**

Blake Hall serves as the college's administration building. The building is home to the Eagle's Nest Cafe, Campus Grounds and the FVCC Bookstore. In addition to accessing information about FVCC and its numerous student services, students can register for classes, pay their bills, purchase books and supplies, grab a cup of coffee or a bite to eat, or join intramurals, service learning or other extracurricular activities. Student Government and the student lounge are conveniently located between the Eagle's Nest Cafe and bookstore.

### **Learning Resource Center (LRC)**

A wide variety of support services are available to students in the Learning Resource Center, including tutoring, academic/career/transfer/personal counseling and job placement. In addition to classrooms, the LRC houses the Library, Media Center, Adult Basic Education (ABE) program office, math and language arts lab, Carl Perkins and TRIO programs, the Teaching Excellence Center, and the Veterans' Center.

### **Business and Social Science (BSS)**

State-of-the-art computer labs are located in the BSS building. Linked together by one central file server, the labs provide classroom instruction in a variety of computer programming and applications courses as well as internet courses. The building also houses classrooms, two ITV classrooms, faculty offices for business and social science programs, University of Great Falls programs and The Scholars Program.

### **Ross Hall (RH)**

Integrated with their respective classrooms, newly remodeled science laboratories in Ross Hall provide students with hands-on, cutting-edge, interactive learning experiences. Math and Science division faculty offices are also housed in the building.

### **Occupational Trades (OT)**

The OT building provides students with a fully-equipped environment for hands-on training and learning. The building is home to trades programs, including electrical; nondestructive testing; manufacturing, metal fabrication and woods products; heating, ventilation and air conditioning; welding; boiler operations; heavy equipment operations and maintenance; industrial technology computer numerical control (CNC); and cabinet and furniture technology. The building is equipped with six shop bays, classrooms, a computer lab, student resource area and student conference room.

### **Arts and Technology (AT)**

The AT building provides additional classroom space with state-of-the-art technology. The facility houses one large and two small community meeting rooms with cutting-edge technologies for workforce training and student instruction. It also contains a fully-equipped instructional kitchen for The Culinary Institute of Montana and a black box instructional theatre with seating to accommodate up to 200 people for the theatre arts program. The facility is home to all of the college's art classes, the FVCC Student Art Gallery, and the Continuing Education Center. The AT building also houses faculty offices for the Humanities division.

### **Early Childhood Center (ECC)**

The Early Childhood Center is a 7,140 square-foot, state-of-the-art development center that serves as a learning lab for FVCC students pursuing careers in early childhood education, elementary education, psychology, human services and social work. The curriculum that is used was developed in conjunction with the college's Early Childhood Education program and is taught by highly-qualified teachers. The Center is open to infants, toddlers and preschool-aged children. Registration is by appointment only and can be done by calling (406) 756-3991. For more information, see Campus Childcare.

### **Rebecca Chaney Broussard Center for Nursing and Health Science (BC)**

The Rebecca Chaney Broussard Center for Nursing and Health Science is the newest facility on the FVCC campus and is the college's first privately-funded building. The 33,000 square-foot facility is home to the college's practical nursing, registered nursing, paramedicine, emergency management, physical therapist assistant, surgical technology, and medical assistant programs. The building also houses the college's Student Health Clinic, which provides affordable basic health care services for FVCC students.

### **Maintenance Storage**

The Maintenance Storage building, a 10,000 square-foot facility, houses the Maintenance and Custodial Department and is also used for general campus storage.



### **Student Housing**

Flathead Valley Community College offers limited student housing. The Spruce Wood Apartments, located approximately one mile from campus, consist of units for single students (two full-time students per unit)\*. Each of the 15 two-bedroom apartments includes free internet and television access and is furnished with a refrigerator, stove and oven.

**\*Full-time is defined as 12 or more credits per semester, including summer.**

Additionally, FVCC maintains a housing list that is updated weekly. To obtain a student housing application or current housing list, call (406) 756-3942 or visit the Admissions Office in Blake Hall or [www.fvcc.edu/housing.html](http://www.fvcc.edu/housing.html)

### **Lincoln County Campus (LCC)**

The Lincoln County Campus of FVCC, located in Libby, provides access to the beautiful Cabinet Mountains, alpine lakes, and the famous Koochanusa Reservoir. The facility is home to LCC's administrative offices, nine classrooms, an art lab, science lab and three computer laboratories in addition to the Glacier Bank Adult Basic Education Learning Center and the Academic Reinforcement Center. The single-story, remodeled building is accessible to persons with disabilities and provides a comfortable, pleasant learning environment. LCC offers students a variety of ways to earn a degree or certificate. Students may opt to (1) attend live-site classes in Libby and Troy, (2) take online classes, and/or (3) take courses via interactive teleconferencing.

### **Lincoln County Library**

The Lincoln County Library serves as a resource center for the Lincoln County Campus. The library has an extensive collection of books and periodicals available to students and is connected electronically with a network of university libraries providing extraordinary access to academic data.

### **Lincoln County Academic Reinforcement Center**

Free tutorial services are available to all students enrolled at the Lincoln County Campus. A full-time professional tutor provides individual or small group instruction on most course offerings. Research tools such as style guides and internet access are available in a modern computer lab with seven workstations.

## Admissions

Blake Hall, Room 111, (406) 756-3366

Flathead Valley Community College has an "open door" policy for those who are 16 years or older. FVCC does not discriminate on the basis of age, color, religion, creed, disability, marital status, veteran status, national origin, gender or sexual orientation in the education programs and activities which it operates. FVCC encourages individuals to seek admission into the college if they feel their educational needs will be met by the programs and services offered by the college. The admissions process is based on self-selection, and students may apply at any time throughout the year.

Admission to a degree/certificate program shall be open to anyone who has earned a high school diploma from an accredited high school or received a high school equivalency diploma. Exceptions may be made for students enrolled in Running Start/Dual Enrollment programs. Exceptions will be approved by the Director of Admissions/Registrar.

### **It's Easy to Enroll! Apply Early**

Application Deadline: One week prior to the start of the semester. The admission file, complete with all records listed below, must be provided to the Admissions Office by one week prior to the start of the semester.

**For non-degree students, a complete admission file consists of the following:**

- A completed Application for Admission form;
- Measles, mumps and rubella (MMR) immunization records for anyone born on or after January 1, 1957 **if taking six (6) or more credits a semester**; and
- Residency verification when required.

**For degree students, a complete admission file includes:**

- A completed Application for Admission form.
- **After application for admission has been submitted, the following records must be provided:**
  1. Official high school transcript, unless completed an AA/AS or bachelor's degree from a regionally accredited college; GED certificate or high school equivalency diploma; or "Ability to Benefit" (take a placement test at the Learning Center for verification)\*;
  2. Official copies of all college transcripts or a high school equivalency diploma;
  3. College placement scores;
  4. MMR immunization records for anyone born on or after January 1, 1957; and
  5. Residency verification when required.

\*Students who are admitted to college under the "Ability to Benefit" guideline are not eligible for federal financial aid.

**Application and records will be held for one year after which one must re-apply and re-submit all records.**

**Selective program admission:** FVCC has additional requirements for selective programs. To be considered for selective program admission, applications must be submitted to the Admissions and Records Office by the appropriate deadlines. Currently, our selective programs include:

- Culinary Arts;
- Medical Assistant;
- Paramedicine;
- Physical Therapist Assistant;
- Practical Nursing;
- Radiologic Technology;
- Registered Nursing;
- Surgical Technology; and
- Surveying

Application deadlines and requirements for admission into selective programs vary by program. Contact the Admissions and Records Office by calling (406) 756-3846 for more information.

### ***Steps to FVCC Enrollment for Home School Students and Students under the Age of 16.***

**An applicant under the age of 16 is required to complete the following:**

1. Contact the Director of Admissions/Registrar by calling (406) 756-3846 to petition the Admissions and Records Office for an exception.
2. Complete the following:
  - a. Provide written permission from parents;
  - b. Complete the COMPASS placement test and call (406) 756-3880 to meet with a college counselor and have scores evaluated to determine college readiness. (Subject to federal guidelines for "Ability to Benefit");
  - c. Submit a non-degree Application for Admission form and provide required immunization records; and
  - d. Obtain instructor's signature before registering for classes.
3. The applicant should also acknowledge the following guidelines:
  - a. A maximum of six credits can be taken the first term;
  - b. He/she will be enrolled as "non-degree" status until he/she has reached 16 years of age and has successfully completed the GED or high school equivalency diploma. At that point, the student can be enrolled as "degree" status;
  - c. Because of federal regulations, financial aid is not available until he/she is 16 years of age; and
  - d. An instructor in any course in which he/she is enrolled can recommend withdrawal if the student is not socially and/or emotionally mature enough to fully benefit or if his/her participation in the course should in any way slow the normal progress of the course.



## 2015-2016

**An applicant who is 16 years of age or older or has graduated from a religious/private school not accredited by the state of Montana, is required to provide the following:**

1. Completed Application for Admission form and required immunization records;
2. A copy of his/her GED certificate or high school equivalency diploma or proof of completion of the COMPASS placement test. Call the college counselor at (406) 756-3880 to schedule an appointment for test score evaluation to determine college readiness. (Subject to federal guidelines for "Ability to Benefit"); and
3. Complete financial aid forms if applying for financial aid.

### *Admission of International Students*

Flathead Valley Community College is authorized under federal law to enroll non-immigrant alien students. The college is not prepared to teach English to international non-English speaking students; therefore, each international applicant is required to furnish the following documents in order to be considered for admission as a full-time/degree-seeking student:

1. A completed Application for Admission form;
2. TOEFL (Test of English as a Foreign Language) scores from an accredited testing service. A minimum score of 500 for the paper-based test, minimum score of 173 for the computer-based test or a minimum score of 61 for the internet-based test is the acceptable standard. More information about TOEFL may be obtained from the Educational Testing Service, Princeton, NJ 08540. FVCC is a TOEFL test center;
3. Proof of completion of the equivalent of an American high school education with satisfactory grades;
4. "Declaration of Finances" or other evidence of funds necessary to pay all living expenses and travel to and from Flathead Valley Community College (approximately \$18,200) or the signature of a United States citizen who will sign as a sponsor and benefactor;
5. A physician-validated immunization record for measles, rubella, diphtheria, tetanus and skin testing for tuberculosis. This evidence must be presented before a student is permitted to register; and
6. Evidence of a student accident and sickness insurance policy or one of equal coverage for each semester in attendance at FVCC.

After an applicant has completed all of the above items and returned the required forms, his/her admission file will be reviewed for either acceptance or denial of admission. Upon acceptance, FVCC will issue an I-20 Certificate of Eligibility for non-immigrant "F-1" student status, which will allow the applicant to obtain a student visa.

**All international students pay out-of-state tuition.**

## Admissions

### *Running Start*

The Running Start program provides eligible high school juniors and seniors the opportunity to get an affordable "running start" on their college education. Classes are offered at a significantly reduced cost. FVCC has teamed up with high schools in Flathead and Lincoln Counties to offer students the option to earn high school and college credits simultaneously through dual credit courses. High school students can elect to earn only college credit while enrolled in the Running Start program.

Classes taken at the college as part of the Running Start program are limited to college-level classes numbered 100 or above.

Students must maintain a cumulative grade point average of 2.0 or higher at FVCC to continue in the Running Start program. Running Start courses are the beginning of the student's college education and will remain on the student's college transcript.

Interested students should contact their high school counselors for information. Each participating high school determines course acceptance and credit equivalency.

For more information regarding enrollment procedures, contact Elizabeth Romain at (406) 756-3923 or eromain@fvcc.edu.

### *Immunizations*

Montana law requires immunization records from all students born on or after January 1, 1957. Proof of two doses of measles, mumps and rubella (MMR) immunizations must be provided before students can be allowed to register. To fulfill this requirement, applicants must meet the following guidelines:

1. If high school required records of immunization are not available, records from physicians' offices or health departments may be substituted with official signatures to verify authenticity.
2. If no records are available, applicants are required to be immunized and submit written medical verifications signed by licensed physicians or provide notarized religious forms or medical exemption forms, or provide blood test results showing immunity.

## Residency

### In-District Students:

- Include students who have lived in the college district (Flathead or Lincoln County) for one continuous year;  
**OR**
- Are dependents whose parents have had permanent residence in the college district for one continuous year;  
**OR**
- Own, reside and pay taxes on real property located within the college district;  
**OR**
- Are dependents whose parents own, reside and pay taxes on real property located within the college district.

### **\*In order to be declared a resident, in-district or in-state:**

- A student must be able to provide clear evidence he/she is a resident of the district and intends to remain permanently and indefinitely in the college district; and
- Provide evidence he/she has taken all reasonable steps to establish residency (i.e. has registered automobile, has registered to vote, has obtained state driver's license) within 60 days after moving to the state.

### In-State Students:

- Include students who have been permanent residents of Montana for one continuous year, real property taxpayers in Montana who live in the state or dependents of Montana residents who do not qualify as in-district.

### Out-of-State Students:

- Include students who are not Montana residents or who are not dependents of Montana residents;  
**OR**
- Are real property taxpayers of Montana but are not Montana residents.

*The above qualifications do not apply to international students.*

The Board of Regents policy is followed if issues arise that are not covered by FVCC residency requirements.

For further information about admission to FVCC, visit the Admissions and Records Office in BH 111, or call (406) 756-3846.

## Change of Residence Status

An individual wanting to change residency status is required to change status prior to registering for the upcoming semester. **No exceptions will be made.**

For tuition and fee purposes, an individual wanting to change from **in-state to in-district** (Flathead or Lincoln County) status is required to **provide clear evidence** he/she has been a resident for one continuous year in Flathead or Lincoln County and intends to remain **permanently and indefinitely** in the college district.

For tuition and fee purposes, an individual wanting to change from **out-of-state to in-district** (Flathead or Lincoln County) status is required to:

1. **Apply for Montana driver's license within 60 days of moving here;**
2. Provide proof of one continuous year of residency in Flathead or Lincoln County;
3. Provide proof he/she is making Flathead or Lincoln County his/her permanent residence (a Montana driver's license, automobile registration and voter registration); **AND**
4. **Remain in part-time status** (six or less credits a semester) for the first year. Residency cannot be established while taking seven or more credits a semester.

For tuition and fee purposes, an individual wanting to change from **out-of-state to in-state** status is required to:

1. **Apply for Montana driver's license within 60 days of moving here;**
2. Provide proof of one continuous year of residency in the state of Montana;
3. Provide proof he/she is making Montana his/her permanent residence (a Montana driver's license, automobile registration and voter registration); **AND**
4. **Remain in part-time status** (six or less credits a semester) for the first year. Residency cannot be established while taking seven or more credits a semester.

Students registering for the first time should contact the Admissions and Records Office at (406) 756-3846 for residency information.

### *Residency Exchange/WUE*

Flathead Valley Community College participates in the Western Undergraduate Exchange (WUE), a program of the Western Interstate Commission for Higher Education and other western states. Through WUE, certain students not residing in Montana may enroll at FVCC in designated programs, paying in-state tuition plus 50 percent (plus other fees that are paid by all students).

Application must be made to the Admissions and Records Office no later than **two weeks before registration**.

The participating states are Alaska, Arizona, Colorado, Hawaii (four-year colleges only), Idaho, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming. Because FVCC participates, residents of Montana may enroll under the same terms in designated institutions and programs in other participating states.

**Students attending under the WUE classification are not allowed to calculate the time as a WUE student toward in-district or in-state residency.**

Information about WUE programs may be obtained from the Admissions and Records Office at (406) 756-3846.

Montana residents may obtain information about WUE programs in other states from The Office of the Commissioner of Higher Education, 2500 Broadway, Helena, MT 59620, (406) 444-6570; or from WICHE Student Exchange Program, P.O. Drawer P, Boulder, CO 80301-9752, (303) 497-0210.

### *Placement Tests*

*Learning Resource Center, Room LRC 129, (406) 756-3880*

Degree-seeking and/or full-time students who plan to take math or English classes are required to complete the COMPASS placement test. Testing is scheduled by appointment in the Learning Center. The test is used for placement purposes only.

Advisors use the COMPASS test scores to determine accurate course placements which maximize students' successes. Test scores guide placement in specific English and math courses as well as evaluating preparation for courses with significant demands in the area of reading. Scores are not kept on the students' permanent transcripts and do not affect grades.

Call the Learning Resource Center at (406) 756-3880 to schedule an appointment. Allow 2-3 hours for testing.

## Registration

Sharon Nau, Associate Registrar/Systems Analyst,  
Blake Hall, Room 115, (406) 756-3845 - snau@fvcc.edu

### How to Register

To register for classes, a student is required to complete the following process:

1. Complete an Application for Admission form and return it to the Admissions and Records Office or apply online at www.fvcc.edu. (This should be done only when the student initially enrolls);
2. Complete COMPASS placement testing;
3. Review the semester course schedule online at www.fvcc.edu; and
4. New students will meet with a Learning Center advisor, while returning students will meet with their assigned advisor to register online or sign a registration form. To obtain the name of the assigned advisor, contact the Admissions and Records Office at (406) 756-3846.

**The Director of Admissions/Registrar or the Associate Registrar is required to approve course loads over 18 credits.**

Non-degree students can register by mail, fax at (406) 756-3965 or online at www.fvcc.edu. Registrations are required to be accompanied by check, money order, VISA, Master Card, Discover, American Express or online at www.fvcc.edu for payment of tuition and fees.

**Students registering during general registration are required to make arrangements for payment of tuition and fees on the day they register.** At least one-fourth of tuition and fees is due at registration for fall and spring semesters.

Up to three-fourths of tuition and fees may be deferred. Account balances are required to be paid before the end of the semester. Students with unpaid account balances will not receive grades, transcripts, diplomas or other academic documents until the account balances are paid. Visit the Business Services Office in BH 132, or call (406) 756- 3831 for additional information.

A student who registers or adds classes after the third week of the semester is charged a \$40 late registration fee. **For short or late starting classes**, a late fee will be charged to a student who registers for the class after it has ended.

Student ID cards can be obtained from the Business Services Office. Dates and times of student ID photo shoots are posted on campus bulletin boards at the beginning of each semester.

### Early Registration

Early registration dates vary by semester. See the academic calendar for specific dates and deadlines.

### General Registration

All registrations should be completed by the first day of the semester. Schedule changes will be accepted through the second week, but permission from the instructor will be required to register for classes after the first week of the semester. New semester registrations will not be accepted after the first week of the semester for full-semester classes. Refer to the academic calendar for specific registration dates and deadlines.

### Online Registration

Online Registration is available at www.fvcc.edu via the student portal from early registration through general registration. Student access is limited. Students should stop by the Admissions and Records Office or call (406) 756-3845 for assistance in registering online. See the academic calendar for specific dates and deadlines.

### Registration Hold

Students who have not submitted required documents, failed to complete a required training including but not limited to New Student Orientation and sexual violence prevention, or have an outstanding balance, etc. will receive a registration hold which will prevent the student from registering from the current and/or future semesters until the issue has been resolved.

### Change of Class Schedule

Adding or dropping classes requires advisor consultation. A student who decides to change his/her class schedule should complete the following process:

1. Obtain a schedule change form from the Registration Office;
  2. With the help of the assigned advisor, complete the schedule change form and ask the advisor to sign it;
  3. Secure signatures from financial aid and all instructors of added or dropped classes after the first week of classes; and
  4. Return the completed form to the Registration Office.
- Refunds for dropped courses are determined by the refund schedule. Added classes will be charged full tuition and fees.

A student who receives financial aid or veterans' benefits is required to have the Financial Aid Director and/or Veterans' Certifying Official sign the schedule change form.

**NOTE:** Classes may only be added during the first two weeks of the semester with the exception of late starting classes.

**The last day to drop a class is indicated on the academic calendar.** A student who wishes to drop a class without the class appearing on his/her transcript is required to drop the class during the first three weeks of the semester. (The above information applies to classes that meet the full semester for fall and spring.) **Failure to attend class DOES NOT constitute withdrawal.**

In order to prevent summer semester short, or late starting classes from appearing on a student's transcript he/she is required to drop the class during its refund period. (See refund schedule.)

No refunds will be granted for semester classes dropped after the second week of the semester. Refer to the refund schedule.

### Cancelled Classes

If a student is enrolled in a class that is cancelled, all tuition and fees automatically will be refunded to him/her by mail.

### Changes in Student Records

The maximum time frame to petition a revision/change to student transcripts or records is within two years of the semester in question. For name changes, the student must provide official documentation, such as court documents, updated social security card or driver's license.

## Eagle Mail

A College assigned student email account, named Eagle Mail, shall be the College's official means of communication with all Flathead Valley Community College students. The College reserves the right to send official communications to students by email with the full expectation that students receive and read emails in a timely fashion. Email may not be used for unlawful activities.

Students are expected to check their FVCC Eagle Mail account frequently and consistently to stay current with College-related communications. Students must ensure sufficient space in accounts to allow for email delivery. Students are required to recognize certain communications as time-critical. Students will not be held responsible for an interruption in the ability to access a message if system malfunctions or other system-related problems prevent timely delivery of, or access to, said message (e.g., power outages or email system viruses).

Faculty may assume a student's official College email is a valid mechanism for communicating with a student. Students who "forward" the FVCC student email account to a private (unofficial) email address outside the official College network address do so at their own risk. The College is not responsible or liable for any difficulties that may occur in the proper or timely transmission or access of email forwarded to any unofficial email address. Any such problems will not absolve students of the responsibility to know and comply with the content of official communications sent to official FVCC student email addresses.

Use of a private account requires students to keep the account active and available to receive messages. Students who choose to forward FVCC email to a different account are responsible to ensure receipt of official College communications forwarded to the personal account. FVCC is not responsible nor will be held liable for lost or deleted email due to account closures or storage restrictions.

## Tuition and Fees

*Chuck Jensen, Vice President of Administration and Finance,  
Business Services Office, Blake Hall, Room 128,  
(406) 756-3808 - cjensen@fvcc.edu*

### Semester Tuition and Fee Schedule

The Tuition and Mandatory Fee Schedules are available at [www.fvcc.edu](http://www.fvcc.edu), via the quick link "Tuition and Fees" at the bottom of the homepage. Tuition and Mandatory Fees vary based on the student's residency status. See here for explanation of residency.

Approximate Semester Costs are shown below (for a full-time, in-district student with 14 to 18 credits):

Category	Average Cost
Tuition	\$1437
Mandatory Fees	\$547
Course/Lab Fees	\$130
Books/Supplies	\$600
TOTAL (approximate)	\$2640

### Category Descriptions:

- **Tuition** is a set dollar amount per credit.
- **Mandatory Fees** include activity fee, building fee, equipment fee, grounds and maintenance fee, student health fee, and the technology fee. Details on these fees are shown below.
- **Course/Lab Fees** vary by course. These fees are for consumables such as materials, supplies, or access to software. Examples might be clay for ceramics, an access code to MyLabs for math, or chemicals in chemistry.
- **Books/Supplies** include items the student purchases outside of class such as required textbooks, notebooks, paper, or calculators.

## ***Mandatory Fees***

*These are fees applicable to all students. See current Tuition and Fee Schedule at [www.fvcc.edu](http://www.fvcc.edu), search "tuition and fees", for current fee amounts.*

### **Activity Fee**

A per credit activity fee is administered by Student Government to support programs, services and activities for FVCC students.

### **Building Fee**

A per credit building fee is assessed to maintain and improve existing facilities, to construct facilities and to purchase new land or buildings.

### **Equipment Fee**

A per credit equipment fee is assessed to assist FVCC in maintaining and updating instructional equipment.

### **Grounds and Maintenance Fee**

A per credit grounds and maintenance fee is assessed for the purpose of maintaining and improving the campus grounds and existing parking and to construct new parking areas.

### **Student Health Fee**

A flat fee is assessed to maintain and operate the Student Health Clinic for students enrolled in seven or more credits at the Kalispell campus. Fully online, Lincoln County Campus, and students registered for 4-6 credits may contact Business Services to opt in for access to the Student Health Clinic.

### **Technology Fee**

A per credit technology fee is assessed to off-set the cost of purchasing or leasing computer equipment, software, maintenance or related items which benefit instructional programs.

## ***Other Fees***

*These fees are applicable in specific circumstances, for example as related to a specific course or form of payment. See current Tuition and Fee Schedule at [www.fvcc.edu](http://www.fvcc.edu), search "tuition and fees," for current fee amounts.*

### **Calculator Fee**

Calculators may be rented for a specific period of time from the Media Center and are paid for at the Bookstore.

### **Late Fee**

An overdue fee of \$10 per day will be assessed to the students account if not returned by the due date. A hold will be placed on the borrower's college account and grades and transcripts from FVCC will not be accessible until the balance has been paid.

### **Replacement Fee**

A fee of \$100 is added to the student's account if the calculator is lost or damaged.

### **Distance Learning Fee**

#### **Online**

Fully online courses using the Desire2Learn platform are charged an additional \$45 for a one-credit class or \$30 per credit for classes that are two credits or more.

#### **ITV**

Students receiving a course delivered via interactive television (ITV) are charged an additional fee of \$30 per credit.

Distance Learning fees are refundable per the college's refund policy.

### **Transcript Fee**

Transcripts are free, but please allow 5-10 business days to process each request (written and signed by the student). Rush and fax requests are \$15 per transcript and will be processed within 1-2 business days. Transcripts are not issued until all accounts with the College are in good standing. Current students may print an unofficial transcript through the student portal at [www.fvcc.edu](http://www.fvcc.edu).



## 2015-2016

### *Payment of Tuition and Fees*

#### **Payment Overview**

All accounts are due in full at the time of registration. The Business Services Office accepts cash, personal checks, money orders, Visa, MasterCard, Discover or American Express. Payments can also be made online at [www.fvcc.edu](http://www.fvcc.edu) via the student portal.

#### **Deferred Payment**

In the event the account is not paid in full at the time of registration, a deferred payment plan is established for all student accounts, unless these accounts are already covered in full by awarded financial aid, a third-party authorization, and/or scholarships.

For fall and spring semesters, a fourth of the total tuition and fees is required prior to the start of the semester. The remaining balance is payable in three monthly installments.

For summer semester, a third of the total tuition is required prior to the start of the semester. The remaining balance is payable in two monthly installments.

For Interim, short, or specifically designated classes, half of the total tuition is required prior to the start of the class and the remainder must be paid before the end of the class.

Applications for the Deferred Payment Plan are available online at [www.fvcc.edu](http://www.fvcc.edu) or from the Business Services Office.

#### PLEASE NOTE:

- In case of default or delinquency in the repayment of all or any part of a scheduled installment, a late charge of \$25 shall be assessed against each late installment.
- Grades and/or transcripts will not be released to students who have hold flags like unpaid library fines or outstanding balances owed the college.
- Registration for subsequent semesters is blocked for students with unpaid balances.
- Non-payment of tuition and fees may result in turning the account over for collections to the Montana Department of Revenue. Collection costs will be added to the balance.

#### **Release of Information**

The Business Services Office will not release a student's account information without written permission of the student, including Running Start students, according to the FERPA regulations. Students may complete an Information Release Form at the Business Services Office which will permit the Business Services Office to discuss payment arrangements with parents, spouses, or others designated by the student.

It is assumed if a student has an authorization for payment from a third party (a contractual agreement) that the Business Services Office can discuss the student's account with the payer.

## Tuition and Fees

### *Discounts and Waivers*

#### **Running Start**

Classes taken as part of the Running Start program are offered at a reduced tuition. See [www.fvcc.edu](http://www.fvcc.edu) search "Running Start tuition." Fees, payment policies and refund policies apply as stated for all students.

#### **Senior Citizen Discount**

The senior citizen discount is available to Flathead and Lincoln County in-district residents 65 years of age and older.

#### **Tax Reporting**

1098T Forms - FVCC will send a 1098T form to all students completing credits during the calendar year. A billing statement for the entire year will be provided upon request.

#### **Tax Relief**

There may be additional tax relief available. Please consult your tax advisor for details.

### *Refund of Tuition and Per Credit Fees*

Refunds of tuition and fees are made according to the following guidelines:

- Tuition and fees are refunded according to the refund policy detailed online at [www.fvcc.edu](http://www.fvcc.edu), search "Refund Policy."
- Students must officially withdraw from their courses at the Admissions and Records Office located in Blake Hall.
- Failure to attend courses DOES NOT drop or withdraw a student from those courses.
- When a student whose tuition and fees are paid under a third party contractual agreement withdraws, he/she is required to make full payment on the balance owed.
- Refunds are calculated from the date of official withdrawal, not from the date the student stopped attending classes.
- The college processes tuition and fee refunds after the third week of the semester.
- Refunds are mailed to the student's address on file with the Business Services Office.
- All existing debts such as library charges, calculator replacement, and deferred payment plan balance, may be deducted from any refund due to the student.
- Questions regarding refunds should be directed to the Business Services Office in BH 132 or call (406) 756-3831.

## Refund Schedule

The refund schedule presumes the account is paid in full at the time of registration. It is based on the total amount owed the college, not the amount paid. The refund schedule is date specific.

Refunds are calculated from the day the Schedule Change form is received in the Registration Office. Students who do not officially withdraw owe full tuition and fees and may receive an "F" for the course. The length of a course determines which refund schedule applies when a student drops a course.

### **9 to 16-week courses: Refund of Tuition and Fees:**

<i>Courses that last at least 63 calendar days</i>	
1st week of semester	100%
2nd week of semester	50%
After 2nd week of semester	No Refund

### *Classes beginning before or after the 1st week of the semester:*

1st week of class	100%
2nd week of class	50%
After second week of class	No Refund

### **Short courses up to 8 weeks:**

<i>Courses that last fewer than 63 calendar days</i>	
1st business day following 1st class	100%
After 1st business day following 1st class	No Refund

*Note: Students may withdraw from courses until the 75% point of the course.*

In order to prevent a full semester course from appearing on a student's transcript, the course must be dropped by the end of the third week of the fall or spring semester. For summer semester, short or late-starting courses, the course must be dropped by the end of its refund period.

Financial Aid students should refer to the withdrawal policy in the Financial Aid section of the catalog.

## Appeals

**Inadequate knowledge regarding the refund policy is not considered sufficient cause for student appeal.**

Failure to attend DOES NOT withdraw a student from their courses, nor does it excuse them from their financial obligations to Flathead Valley Community College.

Students wishing to appeal the refund policy may do so **before the end of the term** by submitting a written appeal explaining their particular circumstances to the college's Vice President of Administration and Finance.

Students with Third-Party Sponsors should meet with their sponsor prior to making changes to their schedules. Sponsorship payment of tuition and fees may be withheld making the student responsible for payment to the college.

## *Financial Responsibility*

### Financial Liability

Unless a student officially withdraws from classes before the start of the semester, the student remains responsible for the balance owing on the account. The non-attendance of classes does not release the student from the obligations for the debt.

Students receiving financial aid may be liable for a repayment of funds to the college. They should consult with the Financial Aid Office before withdrawing.

Students receiving payment from an employer or job retraining program are responsible for the remaining balance of the account if they withdraw before fulfilling those contractual agreements. Students should check with their sponsor before withdrawing.

### Financial Obligations

Students who owe FVCC money cannot register for the succeeding semester, secure transcripts, records, grades, diplomas or degrees until the obligations are paid or satisfactorily adjusted through the Business Services Office.

### Late Payment Fee

In case of default or delinquency in the repayment of all or any part of a scheduled installment, a late charge of \$25 shall be assessed against each late installment.

### Late Registration Fee

A \$40 late registration fee is charged to each student registering or adding classes after the third week of the semester. For short and late starting classes, the fee will be charged if registering after the class has ended.

### NSF Check

A fee is charged for each non-sufficient fund check written to the college. All NSF checks are turned over to the Flathead County Attorney for the cost of the check plus the additional fee assessed by the county. Holds are placed on student accounts for NSF checks, and the student cannot register or receive transcripts until this debt is satisfied at the Flathead County Attorney's office.

## Financial Aid

Cindy Kiefer, Director, Financial Aid, Blake Hall, Room 113,  
(406) 756-3843 - [ckiefer@fvcc.edu](mailto:ckiefer@fvcc.edu)

### *Federal and State Aid*

Flathead Valley Community College administers a variety of government financial assistance programs for degree-seeking students who can provide evidence of financial need. Students are required to complete the FAFSA (Free Application for Federal Student Aid) to determine eligibility.

#### **Federal Pell Grant**

The value of this grant varies from year to year depending on the appropriations from Congress. The projected maximum annual award is \$5,775 for two semesters of full-time attendance. Full and part-time students are eligible. A student's particular dollar amount depends on the student's expected family contribution (EFC) from the FAFSA and enrollment status term by term during the year.

#### **Federal Supplemental Educational Opportunity Grant (FSEOG)**

This grant is awarded to students with the lowest EFCs who are also eligible for the Pell Grant. Full and part-time students are eligible. Annual awards range from \$200 to \$500.

#### **Iraq and Afghanistan Service Grant (IASG)**

For students who are not Pell-eligible; who's parent or guardian died as a result of military service in Iraq or Afghanistan after September 11, 2001; and who, at the time of the parent's or guardian's death, were less than 24 years old or were enrolled at least part-time at an institution of higher education. Maximum is same as Pell maximum; payment adjusted for less-than-full-time study.

#### **Montana Higher Education Grant (MHEG)**

This grant is awarded to full-and/or part-time students with Montana residency and high financial need. Annual awards range from \$200 to \$500.

#### **Montana Baker Grant**

This grant is awarded to full-time students with Montana residency. Annual awards range from \$100 to \$1,000.

#### **Work Study**

Through part-time employment on campus, students who show financial need may earn a portion of their educational expenses. Ten to fifteen hours per week is the recommended work load. Students are paid a competitive wage and may gain experience in their career field. Paychecks are mailed on the 15th of the month following the month the hours were worked.

#### **Direct Stafford Loans**

Eligible students registered in six or more credits may borrow up to \$5,500/\$6,500 per year. Additional eligibility may exist for an independent student. New interest rates go into effect on July 1 of each year and the rate is set by Congress annually. Please check out our website at <http://www.fvcc.edu/admissions/financial-aid/types-of-financial-aid/loans.html> for the current rates or contact the financial aid office. Repayment of principal and interest begins six months after the student is no longer enrolled or drops below half-time attendance (six credits).

#### **Direct Plus Loans**

Eligible parents may borrow for their dependent undergraduate student(s) enrolled at least half-time. New interest rates go into effect on July 1 of each year and the rate is set by Congress annually. Please check out our website at <http://www.fvcc.edu/admissions/financial-aid/types-of-financial-aid/loans.html> for the current rates or contact the Financial Aid Office.

In addition to the above programs, FVCC also works with Third-Party Sponsors who provide payment. These include Job Service, Community Action Partnership of Northwest Montana, Vocational Rehabilitation, Worker's Comp, Head Start, various employers, and others. All sponsorship authorizations must be sent to the Financial Aid Office. Authorization letters must be received prior to General Registration.

#### *Eligibility*

- A student must be a U.S. citizen or eligible non-citizen.
- A male student must be registered with Selective Service.
- A student must have a high school diploma or GED.
- A student may receive federal or state financial assistance only if he/she does not owe a repayment on federal financial aid previously awarded and is not in default on any federal loan previously received.
- A student must be enrolled in a program leading toward a degree or certificate offered by FVCC.
- A student must maintain satisfactory academic progress (SAP):
  - A. A student must have a minimum 2.0 cumulative grade point average in previous coursework at FVCC and have successfully completed 67% of his/her attempted hours at FVCC.
  - B. Degree requirements must be completed within a specific time frame. The maximum time frame for a program of study at FVCC is 150% of the program requirements (i.e. an AS degree requires 60 credits for graduation so maximum time frame would be 90 attempted credits). Hours earned at FVCC, as well as hours transferred and accepted by FVCC, are considered in this maximum time frame.
  - C. For more detailed SAP information, please see our website at [www.fvcc.edu/financial-aid](http://www.fvcc.edu/financial-aid).

## *How to Apply*

- Complete the FVCC admission process for a degree or certificate program; and
- Complete the Free Application for Federal Student Aid (FAFSA) at [www.fafsa.gov](http://www.fafsa.gov). This application can take three to four weeks to process, so early application is encouraged.

Students who submit their FAFSA by March 1 and provide all requested information within two weeks will be given first priority for Work Study funds, MHEG, MT Baker, and FSEOG as funding permits.

## *When to Apply*

Students must apply for financial aid each academic year. Applications are available after January 1 for the following fall and should be submitted as soon as income tax return information from the previous year has been compiled by the students and/or their parents. Applications are processed in the order received, according to students' needs and available funds. Students are notified of their awards beginning in May.

## *Changes in Enrollment Status*

Financial aid will be awarded based on the student's FAFSA application. Enrollment verification will be completed after the 15th class day and financial aid awards will be adjusted based on the student's current registration at that point in time. Any changes to enrollment after that date will not affect the value of a student's award package, unless a student drops or adds a course that has not started, or withdraws from all courses for that term.

Students who are withdrawing from classes after the 15th class day should review the eligibility section of the Satisfactory Academic Progress Requirements to ensure they are maintaining the required academic standards.

## *Financial Aid Refunds*

If students are receiving more financial aid than their direct institutional costs, they will receive a refund check from the college. These checks will be issued about a month into the semester.

In some circumstances, students who are registered in late starting classes may have their refund check reduced or held until they are in attendance in the late starting courses and have passed the refund period for those courses.

## *Withdrawal/Return of Title IV Funds*

Financial aid recipients of Pell Grant, FSEOG, IASG, Stafford or Plus Loan funds are advised to first meet with the Director of Financial Aid before completely withdrawing from all classes for the semester. The Director will explain the consequences of a withdrawal, as well as the financial implications of this action.

If a student officially or unofficially withdraws (stops attending classes) before the 60% point of the semester, federal regulations require that the school complete the Return of Title IV Funds calculation.

The student's withdrawal date, in calendar days, is used to determine the percentage of the semester that the student completed. This percentage is used to determine the "earned" aid that a student is eligible to retain. The student will be responsible for any "unearned" aid that MUST be returned. Examples of this calculation can be provided by the Financial Aid Office.

The student's withdrawal date is either the date they began the withdrawal process or last day they attended classes. For a student who didn't officially withdraw, the withdrawal date is the last date of attendance as reported by the instructor or the 50% point in the semester.

## *Scholarships*

Flathead Valley Community College offers numerous need-based and merit-based institutional and privately funded scholarships. To qualify for need-based scholarships, students must have applied for financial aid by completing the FAFSA (Free Application for Federal Student Aid) application at [www.fafsa.gov](http://www.fafsa.gov) and demonstrate financial need. Merit-based scholarships are based on grade point average, academic standing, program of study, or activities.

Applications and the detailed scholarship brochure listing all the available scholarships are available at the FVCC Financial Aid Office and the LCC Student Services Office. This information can also be found online at <http://www.fvcc.edu/admissions/financial-aid/types-of-financial-aid/scholarships.html>. Scholarship deadlines exist throughout the calendar year; however, for priority consideration apply by March 15 for the following academic year. The award process and regulations are subject to change. In addition, outside scholarship opportunities are published in The Privy Press as they become available.

### Veterans Benefits

Sherry Taylor, Veterans Certifying Official,  
LRC 111, (406) 756-3982 - [staylor@fvcc.edu](mailto:staylor@fvcc.edu)

The Veterans Affairs Office assists veterans in enrolling at FVCC, applying for their educational benefits, contacting the Veterans Administration when benefits payments are delayed, securing tutorial assistance and arranging transfer to other institutions so that payment of educational benefits will not be unnecessarily interrupted.

#### *How to Apply*

Applications for veterans educational benefits should be initiated through the Veterans Affairs Office in the LRC building or by calling (406) 756-3892. Veterans should be prepared to provide a certified copy of their DD-214 and/or DD Form 2384 (notice of basic eligibility) along with some personal history. To receive advance payment, students are required to have a complete admissions file and to contact the school certifying official at FVCC at least 90 days in advance of the semester for which they plan to register.

#### *Eligibility*

- All degree and certificate programs offered at FVCC are approved for benefits under the current GI Bills.
- Widows and children of veterans who died of service-connected disabilities or who have total and permanent service-connected disabilities may be eligible for Chapter 35 educational benefits.
- The Montgomery GI Bill - Active Duty Educational Assistance Program, Chapter 30 - may provide benefits for individuals who first entered on active duty after July 1, 1985.
- The Montgomery GI Bill, Chapter 1606 - Selected Reserve Educational Assistance Program (including National Guard) provides benefits for individuals who enlist, extend or reenlist for at least six years after July 1, 1985. Those individuals are required to have completed an initial active duty for training.
- The Ronald Reagan National Defense Authorization Act established Chapter 1607 - Department of Defense Educational Program to provide educational assistance to members of the reserve components called or ordered to active duty in response to a war or national emergency (contingency operations) as declared by the President or Congress.
- The post-9/11 Veterans Educational Assistance Act of 2008 or "New GI Bill" has been enacted into law.
- Although most veterans have 10 years from their date of discharge to use their VA educational benefits, the "New GI Bill" allows 15 years.

### *Benefits Requirements*

Rates of benefits vary. For the most recent information or more information on all VA educational programs, visit the VA website at [www.gibill.va.gov](http://www.gibill.va.gov) or call toll free 1-888-442-4551.

All veterans and eligible individuals receiving subsistence allowances under the GI Bill are required to report PROMPTLY to the Veterans Affairs any changes which may affect the amount of money being received. Students are required to report when they drop courses, withdraw from school, change marital status or stop attending classes for any reason. Students are not only expected to achieve satisfactory progress but to regularly pursue goals and attend classes.

The repeat of a course for a grade of A, B, C, D, S or I will not count toward the required minimum credit hours. However, if the first grade earned was a F, the course may be repeated for veteran's credit. Veterans educational benefits will not pay for audited classes, course challenges or unsatisfactory grades.

Students receiving Veterans educational benefits will be placed on academic probation any time his/her cumulative grade point average (GPA) falls below 2.0.

A student on probation will be required to meet with a retention advisor before starting the next semester to discuss academic goals and barriers and ways to achieve the goals. A review of the academic assistance available at FVCC and the development of a plan to assist the individual in achieving his/her academic goals will also take place.

If a student fails to improve his/her GPA each term while on academic probation, he/she will have two options - to choose academic suspension for a period of no less than one year or to agree to a plan of extensive remediation developed by the college. If remediation is unsuccessful or if the student fails to comply with the prescribed plan, he/ she will be suspended immediately for no less than one year. A student reinstated after being on academic suspension will be required to meet with a retention advisor prior to registering each semester.

Once a student's cumulative GPA improves to a 2.0 or better, he/ she will be removed from academic probation or suspension status and will no longer be required to meet with a retention advisor.

FVCC will be participating in the Yellow Ribbon program for Veterans using the Post-9/11 GI Bill during the 2015/2016 academic year. Visit [www.gibill.va.gov](http://www.gibill.va.gov) for more information about the Yellow Ribbon Program.

VA laws are subject to change without notice. Students should visit the GI Bill website for the most updated information: [www.gibill.va.gov](http://www.gibill.va.gov).



## Learning Center

*Learning Resource Center, Room 129, (406) 756-3890*

The mission of the Learning Center is to promote student success, increase retention, graduation, transfer and placement rates and foster an institutional climate conducive to student success.

The FVCC Learning Center provides a number of services and activities designed to promote student access and success in postsecondary education, including

- TABE (Test of Adult Basic Education) and HiSET (High School Equivalency Test);
- Testing (COMPASS placement testing, ACT, SAT, career, and personality);
- Advising for Associate of Arts, Associate of Science, Associate of Applied Science, Certificate of Applied Science, and certificate and transfer students in coordination with faculty advisors;
- Counseling (group and individual personal, academic, and career);
- Disability services;
- Career exploration;
- Placement services;
- Tutoring and Supplemental Instruction; and
- Learning labs (math, language arts).

## Adult Learning Center

Funded with Federal, State, and local dollars, the free Adult Basic Education classes help students improve their reading, writing, math, problem solving and computer skills to obtain a high school equivalency diploma, find employment, retain employment, or build skills to enter postsecondary school.

### Flathead County

*Margaret Girkins, Program Director, Adult Learning Center  
Learning Resource Center, Room 129, (406) 756-3884 -  
mgirkins@fvcc.edu*

### Lincoln County

*FVCC Lincoln County Campus, 225 Commerce Way, Libby, MT.,  
(406) 293-2721*

The Adult Learning Center offers FREE day and evening classes in Flathead and Lincoln Counties. The center assists individuals age 16 and older who wish to

- Improve reading, writing, math, language, computer, test taking and study skills;
- Prepare for the HiSET;
- Refresh academic skills before entering college or a training program;
- Receive vocational training;
- Build employment and life skills to enhance transition to work;
- Explore career options and create a plan;
- Build English as a Second Language (ESL) speaking, writing, and math skills for those whose native language is not English.

HiSET is conducted at the Kalispell and Lincoln County campuses of FVCC. Call (406) 756-3884 in Flathead County or (406) 293-2721 ext. 235 in Lincoln County for testing schedules and registration.

**General Basic Education** - Individualized program of instruction in reading, writing, math, spelling, study and job readiness skills.

**Writing Skills** - Individualized and small group instruction and practice in basic English grammar, capitalization, punctuation, usage, spelling and effective writing.

**Reading Improvement** - Individualized and small group instruction to improve vocabulary and comprehension skills.

**Basic Mathematics** - Individualized and small group instruction in basic math and problem solving skills with whole numbers, fractions, decimals, percents, measurement, algebra and geometry.

**English as a Second Language (ESL)** - Individualized and small group instruction in basic reading, phonics and written communication skills for adults whose native language is not English.

## Testing

*Learning Resource Center, Room 129  
For appointments, call (406) 756-3880*

All degree-seeking students, as well as anyone taking writing and math classes, are required to take the COMPASS placement tests as part of the admissions process.

Additional tests administered through the Learning Center include:

- ACT and SAT for college admissions;
- Testing accommodations for students with learning disabilities;
- Proctored testing for correspondence courses;
- TABE and HiSET tests for adult basic education; and
- Alternative testing site for classroom support.

## Advising, Counseling, and Career Exploration

*Learning Resource Center, Room 129  
For appointments, call (406) 756-3880*

Learning Center staff provides advising for Associate of Arts, Associate of Science, Associate of Applied Science, certificate and transfer students in coordination with faculty advisors. Additionally, counseling staff will assist any student seeking counseling services, including personal, career, or academic, or provide appropriate referral if necessary.

## Career Exploration

Career planning services are available to students and the community. Services include:

- Assisting students in the selection of college majors or providing career directions;
- Career Inventories such as Montana Career Information System (MCIS);
- Individual career advising, decision making and goal setting;
- Assistance with college admissions, selection of majors and financial aid resources; and
- Assistance with computerized career systems.



### *Disability Support Services*

*Anna San Diego, Program Coordinator Disabilities Services  
Learning Resource Center, Room 129 - asandiego@fvcc.edu.  
For appointments, call (406) 756-3880 or (406) 756-3890.*

The Disability Support Services Office coordinates reasonable academic accommodations for students with disabilities. Accommodations may include but are not limited to ASL interpreting, note takers, audio books, alternative testing, and assistive technology. To access services and accommodations, students should contact the Specialist, Disabilities Services and Assessment upon their decision to attend FVCC or immediately following the diagnosis of a disability. Each qualified person shall receive the accommodations needed to ensure equal access to educational opportunities, programs, and activities. FVCC strives to create an accessible and inclusive campus environment for students with disabilities.

#### **Americans with Disabilities Act**

Flathead Valley Community College, as required by the Americans with Disabilities Act (ADA), has an established grievance procedure for handling a claim or allegation of discrimination based on a disability. The purpose of this procedure is to promote the prompt and efficient resolution of complaints by any person of alleged discrimination concerning program, activity, service or physical accessibility at FVCC.

Copies of this procedure may be obtained from the Disability Support Services Office.

### *Career Development*

*Karen Darrow, Program Coordinator  
Learning Resource Center, Room 144, (406) 756-3900 -  
kdarrow@fvcc.edu*

The Career Development Office is a resource for students interested in finding either full or part-time employment. Job placement services available to FVCC students and alumni include:

- Job Board listing current job openings;
- Employer information;
- Job search skills: (workshops and individual appointments)
  - Resumes;
  - Interviewing; and
  - Effective job search techniques;
- Graduate Placement Survey information; and
- Career Coach

### *Educational Opportunity Center*

#### **A Department of Education TRIO Program**

*Linda Ornowski, EOC Outreach Counselor,  
Room 141, (406) 756-3916 - lornowsk@fvcc.edu*

The Educational Opportunity Center caters to individuals who are no longer in school but want to pursue high school, HiSET or college diplomas. The EOC encourages individuals to return to high school or enter college by providing:

- Career guidance;
- Academic advising;
- Financial aid assistance;
- College application; and
- Linkages to other agencies providing assistance.

The EOC is part of a Montana State University - Northern program that serves potential students all across northern Montana. The EOC is a federally-funded TRIO program.

## Student Resources

### *Dining Services*

The Eagle's Nest Cafe, located in Blake Hall, serves breakfast, lunch and snacks on weekdays when classes are in session. Dining cards of \$10 and \$20 values are available in the Business Services Office. Menus and prices are established with student budgets in mind.

### *Bookstore*

*Denise Shuman, Bookstore Manager, Blake Hall, Room 164,  
(406) 756-3814 - dshuman@fvcc.edu*

The FVCC Bookstore supplies all textbooks, school supplies and art supplies required for classes. The bookstore also stocks study aids, computer supplies, postage stamps, snack items, college T-shirts and sweatshirts, greeting cards and gift items. Visa, MasterCard and American Express are accepted.

Check policy: Student ID number is required. Checks may be written for \$5 over the amount of purchase.

### Textbooks

#### **Textbook Refund Return Policy (beginning of term)**

Students: Do not write in new textbooks until you are certain they are for the course in which you are enrolled.

1. **Books must be returned during the first two weeks of class for a full refund.**
  2. All refunds or exchanges require the cash register receipt - No exceptions.
  3. Be sure you return the book immediately if:
    - a. You have the wrong book.
    - b. You dropped a class or class was cancelled.
    - c. You decide you don't need the book.
  4. Price stickers must be left on textbooks.
  5. After the first two weeks of the term, textbook returns must be made within three days of purchase for a full refund.
  6. Textbooks purchased for short, interim or late starting block classes have a three day return policy, three days from the beginning of the class.
  7. New books must be in mint condition.
    - a. No marks or blemishes.
    - b. Clean pages.
    - c. No folded corners - No exceptions.
  8. Caution: Do not write in a new book until you are sure it is the correct textbook.
  9. Any defective new or used book must be exchanged at least four weeks before finals.
  10. New textbooks which are shrink wrapped may not be returned if unwrapped.
- No exceptions will be allowed.**

#### **Textbook Buy-back Policy (at the end of the semester)**

If textbook is purchased from the FVCC Bookstore -

1. Student ID required.
2. **Cash register receipt required for book buy back.**
3. The bookstore cannot guarantee the buy back of any books at any time.
4. The bookstore pays 50% of the current new price for books to be used in the coming term. Overstocked books do not qualify for the 50%.
5. If student owes the college money, then buy back funds are posted to student's account.
6. Textbooks not purchased at the FVCC Bookstore are not eligible for book buy back.
7. The best national wholesale prices available will be offered for books which are not in use on our campus or are overstocked.
8. Study guides, books with questions and answer spaces filled in and reproduced materials are not bought back.
9. Book buy back periods are limited to the week of finals.
10. Books classified as old editions and out-of-print may have no monetary value to the bookstore or the used book dealer; you may want to keep them for reference or donate.

#### **Textbook Reservations**

Students have the option of filling out a textbook reservation form to reserve and pay for textbooks each semester. Forms are available in the bookstore. Students complete schedule information with course numbers and instructors' names. Students may choose to pick up books or have them mailed to their home addresses. Payment may be made by cash, check or credit card. Students receiving federal/state grants, student loans or other scholarships may request that the bookstore take the cost of books out of their financial aid.

#### **Campus Grounds**

Campus Grounds is operated by the FVCC Bookstore and located in Blake Hall and the Arts and Technology building. Campus Grounds serves up espressos, lattes, mochas and steamers, sells fun merchandise and provides an inviting, relaxing and comfortable space for students to lounge, study, watch television or read the daily newspaper. Coffee cards and gift certificates are available for purchase in the bookstore.

### *Student Health Clinic*

The Student Health Clinic, funded by the Student Health Fee is available to students taking seven or more credits. Students taking between 4-6 credits can opt in by paying the semester health fee at the FVCC Business Office.

The clinic provides health care services that include:

- Primary health care/Urgent Care
- Health evaluations, treatment of minor injuries and acute health problems such as colds, flu, bladder infections, sprains, and strains
- STD evaluations and tests
- Procedures and cultures including blood and urine testing, pap smears, and pregnancy testing
- Reproductive health care
- Treatment for wart removal
- Medical, surgical and dental referrals
- Limited in-office laboratory testing provided free of charge (mono, strep, flu, urinary infections and pregnancy testing). Other laboratory tests and all x-rays are referred into the community and payment is the student's responsibility
- Physical examinations for overseas academic programs and some employment physicals, nursing and allied health programs
- Loan of crutches
- Condoms - free of charge
- Flu shots (\$15.00 for students that have paid the \$45.00 clinic fee)

For more information and clinic hours, please call the clinic at (406) 756-4331, or stop by Room 136 inside Rebecca Chaney Broussard Center for Nursing and Health Science (BC building) or visit the FVCC web page for additional information.

For immediate or serious emergencies, please dial 911.

### *Health Insurance*

Student health insurance is not offered through the college. Students are responsible for making their own arrangements for health insurance.

### *Library*

Flathead Valley Community College's library is located in LRC, Room 102. Its growing collection includes 66,123 volumes and 130 periodical subscriptions. The well-equipped library features seating for over 110 in a variety of settings including individual study areas, lounge seating and traditional study tables. A full-time staff of three and student assistants are available to assist students with their information needs. A wireless Internet lobby and study zone extends the library's space in the LRC.

Some of the library services offered include:

- SIRSI/DYNIX automated web catalog and circulation system;
- Internet work stations, circulating laptops, and personal computers for student use linked to the college's LAN and network printer;
- Self-service photocopier;
- Interlibrary loans;
- OCLC/WORLDSHARE, featuring the holdings of libraries worldwide, totaling 68,000,000 records;
- Wireless printing from your mobile device;
- Quiet study rooms with overhead projectors for group study;
- Non-circulating collection of college textbooks;
- Faculty reserves;
- Circulating video collection of over 4,000 educational videos;
- Periodical and reference online databases including EBSCO, SCIENCE SOURCE, NEWSBANK and SIRS; Encyclopedia Americana Online; CLC (Contemporary, Literary, Criticism) and PROQUEST SCIENCE JOURNALS and JSTOR;
- Montana periodicals index;
- Extensive USGS topographic map collection;
- Bibliographic instruction and tours in the use of the library for classes or groups;
- Montana and Northwest city phone books;
- Telefacsimile (Fax) service;
- Wireless Internet Node;
- Member of Montana Shared Catalog (MSC), a consortium of 171 member libraries aimed at sharing library materials;
- 3,000 Online E-Books;
- Circulating laptops;
- Extensive hard-copy current newspaper and periodical subscriptions;
- Self-service flatbed scanner; and
- Circulating chess sets.

During fall and spring semesters, the library is open Monday through Thursday from 8 a.m. - 8 p.m., Friday from 8 a.m. - 5 p.m. and Saturday from 9 a.m. - 3 p.m. Summer hours are 8 a.m. - 5 p.m. Monday through Friday during the summer session.

### *Instructional Media Services*

The Media Center, located in LRC 117, provides faculty, students, and staff with non-print instructional materials, audio-visual equipment, and related services used in the classroom or for instruction. For students, these services often include assistance in making PowerPoint presentations, renting of graphing calculators, and the digitizing of print, photo, or video materials to be used in multimedia applications. For faculty and staff, these services also include scheduling of meetings via interactive television, maintenance of a video library and equipment collection that supports the curriculum and other college endeavors, and support utilizing equipment in classrooms and meeting rooms. For a complete list of services, please visit the Media Center website at <http://www.fvcc.edu/current-students/student-resources/media-center.html>.

The Media Center is open during fall and spring semesters, Monday through Thursday, from 8 a.m. - 7 p.m. and Friday from 8 a.m. - 4:30 p.m. Summer hours and interim hours vary.

### *Campus Childcare*

*Laurie Peiffer, Director, ECC, (406) 756-3991 - lpeiffer@fvcc.edu*

The FVCC Early Childhood Center accepts children ages six-weeks old to six-years old. The program is based on developmentally appropriate practices that meet the needs of each individual child. The center offers full-day and half-day programs in each of the infant, toddler and pre-school areas.

### **Mission and Philosophy**

The FVCC Early Childhood Center will provide an environment in which children can have limitless opportunities to maximize their developmental and learning potential.

### **Enrollment**

Enrollment is based on the Center's needs and the following priority order:

- Current family members
- FVCC students (Must be enrolled in a minimum of nine credits)
- Full-time regular FVCC employees
- Community members/general public

Financial assistance is available to FVCC students enrolled in a minimum of nine credits through the FVCC Financial Aid Office. For more information, or to obtain an application for child care assistance, contact the FVCC Financial Aid Office by calling (406) 756-3849.

To schedule a tour of the facility, please contact Laurie Peiffer by calling (406) 756-3991 or by emailing [lpeiffer@fvcc.edu](mailto:lpeiffer@fvcc.edu).

### *Student Activities and Development*

*Blake Hall, Room 155, (406) 756-3981*

The Student Activities Office serves as a resource for all student organizations on campus as well as sponsors a variety of campus activities and events including Welcome Week. All students are invited to participate in student organizations.

For information about Student Activities and Clubs see the FVCC website or contact the Student Engagement Program Coordinator, Genia Allen-Schmid in Blake Hall 155 or at [eallenschmid@fvcc.edu](mailto:eallenschmid@fvcc.edu)

For information about Service Learning Opportunities see the FVCC website or contact the Service Learning Program Coordinator, Wendy Jeschke in Blake Hall 155 or at [wjeschke@fvcc.edu](mailto:wjeschke@fvcc.edu)

For information about Intramurals see the FVCC website or contact the Intramurals Program Coordinator, Sarah Bergford in Blake Hall 160 or at [sbergford@fvcc.edu](mailto:sbergford@fvcc.edu)

### **Internships**

*Karen Darrow, Career Development, Program Coordinator, Learning Center, Room 129, (406) 756-3900 - kdarrow@fvcc.edu*

At FVCC, internships are academic courses that offer college credit. Like classroom work, internships are an integral part of a student's educational preparation. An internship gives the student the opportunity to apply their classroom knowledge to the workplace, learn new skills, network with potential employers and gain confidence in their abilities.

Internships are a partnership between students and local business/organizations. Some internship experiences include compensation to the student while others that meet the federal and state guidelines criteria for "work-based learning" may be unpaid. Interns spend approximately 50 hours/credit at their internship sites, usually working about 10-30 hours per week throughout the semester.

In order to be considered for placement at an internship site, complete applications, including an approved resume and list of references, must be submitted by the first Monday in July for a fall semester placement, the first Monday in November for a spring semester placement, or the first Monday in April for a summer semester placement. Internship applications are available online at [www.fvcc.edu](http://www.fvcc.edu) or in LRC 129. Students must attend an Internship Orientation the semester prior to their internship.

After submitting a complete application packet, prospective interns will be interviewed by potential intern sites. Once an intern site (i.e. business or organization) accepts an intern, an internship agreement can be signed and the student intern may register for the internship course. Additionally, an instructor will be assigned to the intern to monitor the student's learning and evaluate the student's progress through assignments, evaluations, and site visits.

To make an appointment to discuss internship needs, call (406) 756-3880 or (406) 756-3890.

### *Study Abroad*

The Study Abroad program at FVCC invites students to study internationally in both short (one to four weeks) and full-semester trips abroad while earning college credit. These cultural immersion programs to various destinations around the world provide students with a learning opportunity of a lifetime. Recent study abroad destinations include studying art and Italian in Venice, experiencing Shakespeare in London, exploring science at the Galapagos Islands, and tutoring/coaching high school students in Brazil.

To find out more about these opportunities, visit [www.FVCC.edu/academics/study-abroad.html](http://www.FVCC.edu/academics/study-abroad.html).

### *The Honors Program at Flathead Valley Community College*

The Honors Program at FVCC, established in 2009, provides an opportunity for highly motivated students to experience academically rigorous cross-disciplinary honors courses. The program is limited to 20 students. The seminar style courses are four credits each and are primarily taught through the Socratic method with emphasis placed on class discussion and student presentation.

The classes combine any two of the traditional academic disciplines - global issues, humanities, social sciences, mathematics, science and fine arts - and are taught by a team of two instructors. Students can choose to apply the credits toward the appropriate category of general education courses required for graduation. These courses are offered in the fall and spring semesters.

The Honors Program offers academic preparation and curriculum planning to help students succeed in transferring to honors programs and articulates with both the Davidson Honors College at The University of Montana, and the University Honors Program at Montana State University.

Program benefits include a full-tuition scholarship plus a renewable stipend, one-on-one mentoring with faculty, an enriched learning environment with a specially designed classroom and study area and increased potential for financial aid upon transfer.

Graduates of The Honors Program receive special designations on their transcripts and are presented with medallions at FVCC commencement. Admission requirements include a complete honors program application, an essay, letter of reference, statement of career and academic plans, transcripts and ACT, SAT or Compass placement test scores.

For more information visit <http://www.fvcc.edu/academics/the-scholars-program.html>.

### *Veterans Center*

Located in the Learning Resource Center, Room 111, the center serves as a place to meet fellow veterans, receive assistance with services, learn about upcoming events, study, relax between classes, and as a meeting place for the FVCC Veterans Association student group.

## Student Rights and Responsibilities

FVCC students are responsible for knowing the information, policies and procedures outlined in the catalog. The College reserves the right to make changes as necessary and once those changes are posted online, they are in effect. Students are encouraged to check online at <http://www.fvcc.edu/current-students/student-resources/student-policies.html> for the current versions of all policies and procedures.

### *Release of Information*

Flathead Valley Community College will release to outside agencies or persons, upon request, the following directory information:

- Name;
- Photograph;
- Phone number;
- Temporary or permanent address;
- Home or Campus Email address;
- Campus;
- Enrollment status;
- Dates of attendance;
- Area of study;
- Degrees/certificates awarded;
- Participation in officially recognized activities and sports;
- Honors and awards received; and
- Grade level.

If a student chooses not to have any or all of the directory information released, he/she is required to inform the Admissions and Records Office in writing, by submitting a Release of Information form available in the Admissions and Records Office. The college will not release other information without written permission, unless subpoenaed by a court or tribunal of competent jurisdiction. (M.C.A. 20-25-515).

Students have the right to review and inspect all information pertaining to their educational records, including admissions and academic records. The Admissions and Records Office requires at least 48 hours' notice if a student wishes to review his/her records. A student may request an amendment to his/her records on the grounds he/she feels the records are inaccurate, misleading or violate his/her rights. If the amendment is denied, the contents can be challenged through a hearing process with the Dean of Students.

According to the Family Educational Rights and Privacy Act (FERPA) regulations, a student's educational records may be disclosed without prior written consent to specific bodies. A record of each request will be kept in the student's file. Students who believe that FVCC is not complying with the requirements of the Family Educational Rights and Privacy Act (FERPA) may file complaints in writing to: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave., SW, Washington, D.C. 20202-5920.

The Family Educational Rights and Privacy Act prohibits disclosure of academic information to third parties without prior written consent of the student. (Exception: the disclosure of educational records, without consent, to another school in which the student seeks or intends to enroll.)

### *Academic Probation and Dismissal*

A degree-seeking or Running Start student will be placed on academic probation anytime his/her cumulative grade point average (GPA) falls below 2.0.

A student on probation will be required to meet with a retention advisor before starting the next semester to discuss academic goals and barriers and ways to achieve the goals. A review of the academic assistance available at FVCC and the development of a plan to assist the individual in achieving his/her academic goals will also take place.

If a student fails to improve his/her GPA each term while on academic probation, he/she will have two options: choose academic suspension for a period of no less than one year or agree to a plan of extensive remediation developed by the college. If remediation is unsuccessful or if the student fails to comply with the prescribed plan, he/she will be suspended immediately for no less than one year. A student reinstated after being on academic suspension will be required to meet with a retention advisor prior to registering each semester.

Once a student's cumulative GPA improves to a 2.0 or better, he/she will be removed from academic probation or suspension status and will no longer be required to meet with a retention advisor.



## 2015-2016

### *Student Code of Conduct and Student Complaints*

The purpose of this policy is to promote the prompt and efficient resolution of student conduct violations and student complaints about College employees. Complaints involving discrimination, sexual harassment, sexual misconduct, or stalking are addressed in Chapter 1 Section 60 of the Discrimination Grievance Procedure. Copies of this entire policy, procedure, and the Student Complaint Form may be obtained from the Dean of Students or online at <http://www.fvcc.edu/current-student-resources/student-policies.html>.

#### CORE VALUES OF STUDENT CONDUCT

The core values of student conduct at FVCC are as follows:

- Integrity: College students exemplify honesty, honor, and a respect for truth in all of their dealings.
- Community: College students build and enhance their community.
- Social Justice: College students are just and equitable in their treatment of all members of the community and act to discourage and/or intervene to prevent unjust and inequitable behaviors.
- Respect: College students show positive regard for each other, for property, and for the community.
- Responsibility: College students are given and accept a high level of responsibility to self, to others, and to the community.

Student behavior that violates these core values as defined in the policy is subject to the sanctions outlined in the posted conduct procedures.

The Code of Student Conduct and the student conduct process apply to the conduct of individual students and all College-affiliated student organizations. For the purposes of student conduct, the College considers an individual to be a student when the student registers for a class. The Code of Student Conduct applies to behaviors that take place on the campus, at College-sponsored events, and may also apply off-campus when the Dean of Students or designee determines that the off-campus conduct affects a substantial College interest.

There is no time limit on reporting violations of the Code of Student Conduct; however, the longer someone waits to report an offense, the harder it becomes for College officials to obtain information and witness statements and to make determinations regarding alleged violations. Though anonymous complaints are permitted, doing so may limit the College's ability to investigate and respond to a complaint. Those who are aware of misconduct are encouraged to report it as quickly as possible to the Dean of Students. A responding student facing an alleged violation of the Code of Student Conduct is not permitted to withdraw from the College until all allegations are resolved.

Eagle Mail is the College's primary means of communication with students. Students are responsible for all communications delivered to their College email address.

## College Regulations

### STUDENT COMPLAINT AGAINST FVCC EMPLOYEES

The term "complaint" shall mean a claim or allegation by a student that a College employee(s):

- Significantly failed to carry out their professional responsibilities or failed to deal with a student fairly and impartially;
- Significantly failed to carry out an assigned responsibility or failed to apply college policy fairly and impartially; or
- Performed an action which impinged on the rights or activities of a student in the legitimate pursuit of the educative process.

All student complaints must be filed within 30 calendar days after the complainant knew or reasonably should have known about the complaint. Complaints shall be filed using the Student Appeals Complaint Form, available with the Dean of Students or at <http://www.fvcc.edu/current-students/student-resources/student-policies.html>.

No reprisal of any kind will be made by either party against any student, College employee, or any participant in the complaint process by reason of such participation.

If a student seeks resolution of a complaint in any form other than that established by this procedure, whether administrative or judicially, the parties to the complaint shall have no obligation to proceed further under the provisions of this procedure.

### *Academic Dishonesty*

The faculty, staff and administration of Flathead Valley Community College believe academic dishonesty conflicts with a college education and the free inquiry of knowledge. Plagiarism, cheating, forgery, facilitating or aiding academic dishonesty, unauthorized access, or otherwise manipulating student records, and computer programs, are all forms of dishonesty that corrupt the learning process and threaten the educational environment for all students.

Plagiarism is using another person's writing or works as one's own. Plagiarism is an intolerable offense in the academic community and is strictly forbidden. Students must always carefully acknowledge others' ideas as well as words.

The consequences of academic dishonesty may vary depending on the situation and the individual instructor involved. Any student involved in academic dishonesty will be subject to disciplinary action imposed by the instructor up to and including administrative withdrawal or a failing grade for the course.

In addition, academic dishonesty is grounds for disciplinary action under the Student Code of Conduct rules. The student found guilty of academic dishonesty may be reported to the Dean of Students for the initiation of disciplinary sanctions ranging from a warning to expulsion from the college.

### *Cell Phones*

Cell phones and other noise-making devices are required to be turned off or silenced in classrooms, labs, library and study areas and at other functions where they may be disruptive.

## *Student Publications*

Flathead Valley Community College recognizes that student publications are a valuable aid in establishing and maintaining an atmosphere of free and responsible discussion and intellectual exploration. They serve as vehicles to bring student concerns to the college community's and public's attention, and formulate student opinions on various issues.

As citizens, students enjoy the same basic rights and are bound by the same responsibilities as are all citizens. Among these rights are freedom of speech and freedom of press. The Flathead Valley Community College Board, faculty and staff shall not exercise editorial control over student publications, except where specifically provided by FVCC policies and procedures. The college shall not be deemed to endorse the content of these publications unless so stated.

## *Waiver of Regulations*

Rules and regulations contained in this catalog have been adopted by the Flathead Valley Community College faculty, administration, and Board of Trustees and are subject to modification and revision. Students who feel that extenuating circumstances might justify the waiver of any college regulation may file a petition with the Dean of Students.

## *Drug and Alcohol Policy*

Flathead Valley Community College is committed to maintaining a work and learning environment free of drug and alcohol abuse and strives to create an environment that promotes healthy and responsible living and respect for community and campus standards and regulations. The following guidelines describe college policy regarding the use of alcohol and drugs:

- The possession, use and/or consumption of alcohol and/or illicit drugs by anyone on or off campus at any college-sponsored event is prohibited;
- The distribution of alcohol by the college or by any college-affiliated organization is prohibited;
- Alcohol-free events are promoted;
- Assistance should be provided to individuals who are abusing drugs and alcohol;
- Safe transportation to and from events is encouraged; and
- Ongoing education is provided by Flathead Valley Community College to inform individuals about the potential risk associated with excessive use of alcohol and the illicit use of drugs.

## *Campus Safety*

FVCC works diligently to provide a safe learning environment for students, faculty, staff and visitors. For a copy of the annual crime report or to register for FVCC's emerging notification system powered by e2campus, visit [www.fvcc.edu/current-students/student-life/campus-safety.html](http://www.fvcc.edu/current-students/student-life/campus-safety.html).

## *Tobacco-free Policy*

The College is committed to complying with the Montana Clean Indoor Air Act, and further supports a healthy, comfortable and productive work environment for all students, employees and visitors to the campus. Therefore, FVCC prohibits any form of smoking including the use of electronic cigarettes (e-cigarettes)

or any form of tobacco usage in all of its campus facilities as well as at all points of entrance and exit from its facilities, including all walkways and parking lots. Smoking or tobacco usage is only allowed inside designated enclosures or designated tobacco usage areas. Failure to comply will result in disciplinary action as stipulated by College Policy for student infractions and the appropriate disciplinary process as set forth in collective bargaining agreements or Board of Trustees policy for faculty and staff.

## *Sexual Harassment Policy*

Flathead Valley Community College recognizes the importance of every individual's personal dignity and is therefore committed to providing an educational and work environment where students, faculty and staff are safe, secure and respected. FVCC is committed to serving as a learning community free of all forms of sexual harassment, exploitation or intimidation. Sexual harassment unfairly interferes with the opportunity for all persons, regardless of gender, to have comfortable and productive education and work environments.

It is also unlawful and against college policy to retaliate against an employee or student for filing a complaint of sexual harassment or cooperate in an investigation of sexual harassment.

Sexual harassment consists of unwanted or unwelcome behavior of a sexual or gender directed nature severe or pervasive enough to create an intimidating, hostile or offensive work or learning environment when:

- A. Submission to such conduct is made (either explicitly or implicitly) a term or condition of instruction, employment, or participation in any other college activity (quid pro quo); or
- B. Submission to or rejection of such conduct by an individual is used as a basis for evaluation in making academic or personnel decisions affecting an individual (quid pro quo); or
- C. Such conduct has the purpose or effect of unreasonably interfering with an individual's performance or creating an intimidating, hostile, or offensive work or learning environment.

Sexual harassment may result from an intentional or unintentional action and can be subtle or blatant. It can be verbal or physical and can occur in any setting, and the spectrum of behavior may range from verbal remarks to physical assault. The context of events and the totality of the circumstances surrounding those events are important in determining whether a particular act or series of events constitutes sexual harassment.

## Student's Responsibility

A student should speak up about sexual harassment when he/she witnesses or experiences it, either among students or staff. Retaliation is illegal.

A student who has been a victim of any form of sexual harassment, knows someone who has been a victim, or has questions regarding sexual harassment should contact the Title IX Coordinator at (406) 756-3841. Students may also contact Title IX liaisons in each campus building. The names of Title IX liaisons are posted in each building.

## 2015-2016

### Student Consumer Information

The following information is available to the general public, prospective students and enrolled students. Please refer to the specific contact information to obtain additional information or to receive printed documentation. This information may also be requested in writing or viewed on our website at [www.fvcc.edu](http://www.fvcc.edu).

### Campus Safety Information

- Campus security policies and crime statistics - Annual Campus Crime Report
- Warnings of forcible and non-forcible offenses will be sent via e2Campus alerts and posted on bulletin boards in a timely manner on campus.

*Safety Committee Chair:* (406) 756-3901

*Dean of Students:* (406) 756-3812

*Lincoln County Campus:* (406) 293-2721

[www.fvcc.edu/current-students/student-life/campus-safety.html](http://www.fvcc.edu/current-students/student-life/campus-safety.html)

### Drug and Alcohol Abuse Prevention

- Drug and Alcohol Policy

*Counselor:* (406) 756-3886

*Program Coordinator, Student Engagement:* (406) 756-3981

*Lincoln County Campus:* (406) 293-2721

*Registrar:* (406) 756-3846

### Family Educational Rights and Privacy Act (FERPA)

- Student Rights and Responsibilities

*Registrar:* (406) 756-3846

*Lincoln County Campus:* (406) 293-2721

### Financial Aid Information

- Types of Aid

*Financial Aid Office:* (406) 756-3849

<http://www.fvcc.edu/about-fvcc/administration-governance/administrative-departments/business-services/tuition-fees.html>

## College Regulations

### General Information

- Tuition and Fees  
<http://www.fvcc.edu/about-fvcc/administration-governance/administrative-departments/business-services/tuition-fees.html>
- Academic Programs  
<http://www.fvcc.edu/academics.html>
- Disability Support Services  
*Program Coordinator, Disabilities Services: (406) 756-3881*  
<http://www.fvcc.edu/current-students/student-resources/learning-center/disability-support-services.html>
- Accrediting Agency - Northwest Commission on Colleges and Universities  
<http://www.nwccu.org/>

### Graduation Completion Rate

- Institutional Research Analyst: (406) 756-3924

### Refund Policy

- College refund policy  
*Business Services Office:* (406) 756-3831  
*Lincoln County Campus:* (406) 293-2721  
<http://www.fvcc.edu/admissions/register-for-classes/refundpolicy.html>
- Withdrawal/Return of Title IV Funds  
*Financial Aid Office:* (406) 756-3849  
*Lincoln County Campus:* (406) 293-2721  
<http://www.fvcc.edu/admissions/financial-aid/rights-responsibilities/withdrawal-policyreturn-of-title-iv-funds.html>

### Sexual Harassment Policy

- Sexual Harassment Policy  
*Vice President of Academic Affairs:* (406) 756-3619

## Transfer to Other Institutions

FVCC is fully accredited, enabling students to transfer to other colleges or universities with ease. Courses numbered 100 or above are considered transfer courses. FVCC keeps in frequent contact with other Montana colleges and universities in order to accommodate changes in curriculum and programs and to provide the best advising to students. Written transfer agreements with all six Montana University System units, as well as many other colleges and universities, are available from advisors or in the Admissions and Records Office.

Regardless of the number of credits earned at FVCC, the number accepted toward a degree at another institution is determined by the institution awarding the degree. A student will be expected to meet the program requirements in effect at the institution to which he/she transfers. A FVCC student who has completed the FVCC general education core requirements can transfer to any Montana University System school and be guaranteed the transfer institution's lower division core requirements have been met.

Contact the Transfer Advisor at (406) 756-3887 for transfer assistance.

### *How to Transfer*

A student who plans to transfer to a four-year college or university, should follow these steps:

1. **Plan Ahead**
  - a. Obtain or view online a current catalog from the transfer institution;
  - b. Review the transfer institution's transfer and major requirements. Enroll in classes a typical freshman and sophomore take for the major field of interest selected; and
  - c. Review the transfer institution's course equivalency guides or the Montana University System course equivalency guide at [www.mus.edu/Transfer/transfer.asp](http://www.mus.edu/Transfer/transfer.asp).
2. **Keep in Touch and Pay Attention**
  - a. Confer with the faculty advisor about fulfilling FVCC's and the transfer institution's general education and major requirements;
  - b. Contact the transfer advisor to assist in the transfer process;
  - c. Contact the Admissions Office and/or the major department of the transfer institution to learn about applicable transfer regulations. For example, several schools will only accept a grade of "C" or higher for major requirements. Similarly, some programs such as nursing and education have specific application deadlines; and
  - d. Meet with the faculty advisor and transfer advisor often to assure a smooth transfer and appropriate course selection.
3. **Apply for Admission**
  - a. Apply for admission and send official copies of transcripts to the transfer institution. When transferring to a public institution in Montana, request a transmittal of record to be forwarded to any college within the Montana University System for \$8 at the Admissions Office in Blake Hall. That replaces applying directly to the institution.

### *Single Admissions File/Transmittals*

In order to assist undergraduate, degree-seeking students who (1) transfer between units of the Montana University System; or (2) enroll in coursework at more than one unit of the Montana University System in the same semester, the Montana Board of Regents authorizes a "single admissions file" that will follow the student throughout the System, much like a patient's medical records, regardless of which campus(es) the student enrolls in.

If a student decides to attend another unit of the Montana University System under the two (2) situations described above, the student must complete a Request for Transmittal of Application Materials and submit it to the FVCC Admissions and Records Office. The Admissions and Records Office will prepare a certified copy of the student's admissions file and pass it along to the unit or units identified in the admissions file transmittal form. An \$8 fee will be assessed for the transmittal of records.

Copies of the Single Admissions policy (MUS policy 301.5.4) are available from the FVCC Admissions and Records Office or from Montana Board of Regents' website at <http://mus.edu/borpol/bor300/301-5-4.pdf>.

### *Transfer Agreements*

Transfer agreements have been established in certain programs to facilitate transfer of Flathead Valley Community College credits to other institutions. Agreements include articulation procedures as well as course equivalency lists. The agreements guarantee transfer of credits once specific curriculums have been satisfactorily completed. Students interested in transferring under articulation agreements should discuss their plans with their academic advisors early in their studies.

### *Degree Completion Opportunities in the Flathead Valley*

College students in the Flathead Valley have several opportunities to earn bachelor and master degrees upon graduating with their associate degrees. At FVCC, students can earn Associate of Arts or Associate of Science degrees which prepare them to successfully transfer to any four-year college or university as juniors. Students interested in pursuing career and technical degrees can earn a variety of Associate of Applied Science degrees at FVCC. Students who earn AAS degrees and choose to continue their education can easily apply their degrees toward Bachelor of Applied Science degrees. In partnership with several Montana universities, FVCC provides the setting for students to complete bachelor's and master's degree programs without leaving the valley.

### **The University of Montana - Missoula**

In partnership with The University of Montana (UM), students may earn the following degrees through UM:

- **Bachelor of Arts in Social Work**  
For more information, call (406) 243-5543; or visit <http://socialwork.health.umt.edu/Bachelor%20of%20Social%20Work/default.php>
- **Bachelor of Arts in Elementary Education**  
For more information, call (406) 243-6170



## 2015-2016

- **Master of Business Administration**  
For more information, contact MBA program assistant at (406) 243-2064 or visit [www.mba.business.umt.edu](http://www.mba.business.umt.edu).
  - **Master of Education in Curriculum Studies (online degree)**  
For more information, contact Morgen Alwell, graduate co-coordinator at [morgen.alwell@umontana.edu](mailto:morgen.alwell@umontana.edu) or at (406) 243-5512; or Matthew Schertz, graduate co-coordinator at [matthew.schertz@umontana.edu](mailto:matthew.schertz@umontana.edu) or at (406) 243-2163; or visit <http://coehs.umt.edu/departments/currinst/masterofed/default.php>
  - **Master of Education in Educational Leadership (online degree)**  
For more information, contact Sarah Knobel at [Sarah.Knobel@mso.umt.edu](mailto:Sarah.Knobel@mso.umt.edu) or at (406) 243-5586; or visit <http://coehs.umt.edu/departments/currinst/masterofed/default.php>.
  - **Master of Public Administration (online degree)**  
For more information, contact Dr. Jeffrey Greene at [jeffrey.greene@umontana.edu](mailto:jeffrey.greene@umontana.edu) or at (406) 243-6181; or visit [www.cas.umt.edu/polsci](http://www.cas.umt.edu/polsci).
  - **Library Media Endorsement (online program)**  
For more information, contact Michael Schulz at [m\\_schulz@umwestern.edu](mailto:m_schulz@umwestern.edu) or at (406) 683-7492; or visit <http://www.umwestern.edu/programs/education.html>
  - **Doctor of Education (cohort in Missoula and online)**  
For more information, contact Sarah Knobel at [Sarah.Knobel@mso.umt.edu](mailto:Sarah.Knobel@mso.umt.edu) or at (406) 243-5586; or visit [www.coehs.umt.edu](http://www.coehs.umt.edu).
- For other online classes/programs, visit <http://umonline.umt.edu/> or contact Jeffrey Wimett at [jeffrey.wimett@umontana.edu](mailto:jeffrey.wimett@umontana.edu) or at (406) 243-4470.

### **Montana State University - Bozeman**

In partnership with Montana State University - Bozeman, students may earn the following degrees through MSU:

- **Bachelor of Science in Nursing**  
Students may complete their entire Bachelor of Science in Nursing degree in the Flathead, if accepted into the Kalispell clinical site. For more information, contact Dr. Sue Justis at [sjustis@fvcc.edu](mailto:sjustis@fvcc.edu) or at (406) 756-3866.
- **Bachelor of Arts in Liberal Studies (online)**  
For more information, contact Peg Wherry, Director of Online and Distance Learning, at [margaret.wherry@montana.edu](mailto:margaret.wherry@montana.edu) or (406) 994-6685.

## Transfer and Grading

### **Montana State University - Billings**

In partnership with Montana State University - Billings, students may earn the following degrees online. For more information, contact the advising center by calling (406) 657-2240 or (800) 565-6782 or by emailing [advising@msubillings.edu](mailto:advising@msubillings.edu); or visiting [www.msubillings.edu/msubonline/](http://www.msubillings.edu/msubonline/).

- **Bachelor of Applied Science**
- **Bachelor of Arts in Communication - Mass**
- **Bachelor of Arts in Organizational Communication**
- **Bachelor of Science in Business Administration, Accounting or General Business**
- **Bachelor of Science in Health Administration**
- **Bachelor of Science in Liberal Studies**
- **Bachelor of Science in Public Relations**
- **Master of Health Administration**
- **Master of Rehabilitation and Mental Health Counseling**
- **Master of Science in Public Relations**
- **Master of Science in Special Education**

### **Montana State Northern - Havre**

In partnership with Montana State University - Northern, students may earn the following degrees online. For more information, call (406) 265-3736.

- **Bachelor of Science in Business Administration**
- **Bachelor of Science in Criminal Justice**

### **Montana Tech of The University of Montana**

In partnership with Montana Tech of The University of Montana, students may earn the following degree through Montana Tech - UM. For more information, contact Charlie Faught at [cfaught@mtech.edu](mailto:cfaught@mtech.edu) or at (406) 496-4884.

- **Bachelor of Science in Health Care Informatics**

### **University of Great Falls**

In partnership with the University of Great Falls (UGF), students may earn the following degrees through the UGF in the Flathead Valley:

- **Bachelor of Arts in Secondary Education**  
for English, History, Math and Social Studies, and teacher certification classes for students with a Bachelor's Degree.
- **Bachelor of Arts in Psychology**
- **Bachelor of Science in Criminal Justice**
- **Bachelor of Arts in Sociology**

For more information on any of the UGF programs, contact Dennis Haverlandt at (406) 756-8042 or at [ugfvcc@ugf.edu](mailto:ugfvcc@ugf.edu).

### *Transcripts*

A transcript is an official record of each student's coursework at FVCC and is maintained in the Admissions and Records Office. Requests for transcripts must be made in writing by the student to the Admissions and Records Office. Transcripts are free, but allow 5-10 business days to process each request. Rush and fax requests are \$15 per transcript and will be processed within 1-2 business days. Current students may print an unofficial transcript through the student portal at [www.fvcc.edu](http://www.fvcc.edu). Transcripts are withheld if students have library fines or owe money to the college.

### *Transfer of Credits to FVCC*

Students wishing to transfer credits to FVCC must:

1. Have a completed application on file in the Admissions Office; and
2. Arrange to have an official transcript of previously attended institutions mailed to the FVCC Admissions and Records Office. Transcripts should be submitted at least 30 days before the semester begins. Credits will be evaluated by the Admissions and Records Office and accepted according to current scholastic standards. Students will be given written notification of the evaluation and the evaluation will be posted on the student portal. The number of credits accepted will be posted on the student's FVCC transcript.

### *General Education Core*

An undergraduate student entering or moving from one institution to another within the Montana University System who has not completed the general education core at the sending institution will be required to either complete the general education core at the campus to which they transfer or complete the MUS core.

FVCC, as a public institution legally committed to church-state separation, cannot accept as fulfilling the Humanities requirement those doctrinally-oriented courses in religion, scripture study and theology which are taught at Bible schools, seminaries, and theological institutes or which are directed primarily toward training clergy and lay missionaries in a specific faith or set of religious beliefs.

### *Outdated Coursework*

In evaluating coursework from postsecondary institutions, the campuses within the Montana University System will:

1. Guarantee that any postsecondary coursework taken within five years of being admitted or readmitted to the campus will be included in the transfer analysis of specific required classes in a major, minor, option or certificate;
2. Guarantee that any postsecondary coursework taken within 15 years of being admitted or readmitted to the campus will be included in the transfer analysis of general education coursework; and
3. Guarantee that any postsecondary coursework taken within 15 years of being admitted or readmitted to the campus will be included in the transfer analysis of elective coursework.

Coursework that falls outside these guarantee periods may be included in the evaluation, at the discretion of the individual campuses. Since it is a discretionary decision, it cannot be challenged by students.

### *Transfer Appeal Process*

The following process has been implemented to assist students in resolving any questions or concerns they may have regarding the evaluation and acceptance of their transferred credits:

1. The student should complete the Request to Appeal Evaluation of Credits Transferred to FVCC form. (Forms are available in the Admissions and Records Office.)
2. The student should obtain a copy of the description for the course(s) in question; if it is available, the course syllabus is preferred.
3. If the course(s) under review will be applied toward either an AA or AS degree, the student should take this information and any other pertinent information they may have to the appropriate division chair. If the course(s) in question will be applied toward an AAS degree or certificate program, the student is directed to see the faculty in the appropriate program of study.
4. The division chair or program faculty review the material supplied by the student and either concur with the decision of the Admissions and Records Office or agree to accept the credit.
5. If the division chair/program faculty agrees with the decision of the Admissions and Records Office, the student can appeal the decision to FVCC's Vice President of Academic Affairs.
6. The decision of the Vice President of Academic Affairs will be final.



## Courses and Credits

### *Credits*

The typical unit of measurement of college work is called a credit hour. One credit is usually assigned for one lecture or laboratory period per week. The lecture period consists of 50 minutes; the laboratory period may consist of two or more hours. In addition to class time, the average student may expect two hours of outside work for each period of lecture or laboratory.

### *Class Standing*

Freshmen are degree-seeking students who earned fewer than 30 semester credits. Degree-seeking students who have completed 30 or more semester credits are considered sophomores.

### *Full-time Student*

In general, FVCC defines a full-time student as a person enrolled in 12 or more credit hours per semester. A part-time student is enrolled in 11 or fewer credits per semester. However, other definitions of full-time and part-time loads exist specifically pertaining to athletes, veterans, Social Security recipients, etc.

In order to earn a degree in two years, a student must enroll in an average of 15 credits per semester. For more information see your assigned academic advisor.

Students registering for more than 18 credits are required to obtain special approval from the Director of Admissions/Registrar or the Associate Registrar.

### *Military Credits*

Credits may be earned for courses completed in military service schools and training programs at the associate degree level as recommended by the American Council on Education in "A Guide to Evaluation of Education Experiences in the Armed Services." A student is required to provide an official DD-214 and any transcripts of courses completed. **A maximum of 15 credits may be used toward an associate degree.**

### *Credit for Prior Experiential Learning/Work Experience*

Course Substitution: A student who believes he/she possesses skill proficiency due to work experience can request a substitute class. The appropriate Division will review the student's credentials that support proficiency, and if satisfied the student meets the class requirements, can approve a substitute class of equal or greater academic or technical content to be completed in substitution for the required class. This can include independent study course offerings.

## Transfer and Grading

2015-2016

### Advanced Placement (AP) and CLEP Credit

Students may earn college credit by taking Advanced Placement (AP) Program tests while in high school and providing official transcripts showing satisfactory scores. The College Level Entrance Exam (CLEP) Program can also be used by anyone who can demonstrate competency in a variety of subjects by receiving a satisfactory grade on a CLEP general or subject test. FVCC awards credit based on ACE (American Council on Education) recommendations for both AP and CLEP.

The closest CLEP testing site is at The University of Montana, and their testing center can be reached at (406) 243-2175. Official transcripts can be obtained from CLEP Transcript Service, PO Box 6600, Princeton, NJ 08541-6600 or calling (609) 771-7865. Tests cost \$70 each and are instantly scored (except the English Writing Test with Essay).

The FVCC policy for accepting either AP or CLEP credit is:

1. Students must be degree-seeking.
2. Official transcripts showing scores at the ACE minimums or above will be awarded credit with an "S" (satisfactory) grade. This grade is not used for calculation of the student's grade point average. The number of credits awarded per test is determined by the Admissions and Records Office.
3. There is no limit to the number of credits that may be granted, but only 15 credits of "S" grades may be used towards graduation requirements.
4. General Education courses may be satisfied with CLEP/AP credit. The Admissions and Records Office makes these designations on the student's FVCC transcript. Caution: Every college and university makes their own policies on the acceptance of CLEP and AP credit. Students intending to transfer cannot automatically assume every school will accept these credits as FVCC does. Students should verify the intended school's policy.

Department approval may be necessary to replace specific requirements with CLEP/AP scores in the major.

Subject	AP Score	Credit/Placement
Art (Visual & Studio)	3	ARTZ 105F (3)
Art (History)	3	ARTH 200FGH & ARTH 201FGH (3,3)
Economics	3	ECNS 201B & ECNS 202GB (3,3)
English	3 (for score on either the language and composition or the composition and literature exam)	WRIT 101W (3)
	3 (for score on both the language and composition and the composition and literature exams)	WRIT 101W & WRIT 201W (3,3)
Italian (Language)	3	ITLN 101GH & ITLN 102GH (5,5)
French (Language)	3	FRCH 101GH & FRCH 102GH (5,5)
German (Language)	3	GRMN 101GH & GRMN 102GH (5,5)
Russian (Language)	3	RUSS 101GH & RUSS 102GH (5,5)
Spanish (Language)	3	SPNS 101GH & SPNS 102GH (5,5)
Political Science	3	PSCI 210B (3)
History - American	3	HSTA 101B & HSTA 102B (4,4)
History - World	3	HSTR 101B & HSTR 102B (4,4)
Math A.B. Exam	3	M 171M (5)
Math B.C. Exam	3	M 171M & M 172M (5,5)
Psychology	3	PSYX 100A (4)

AP credits are available for biology, chemistry, and physics if the AP score is three or greater under the following conditions:

1. AP credits may be granted for the lecture portion of the course at the discretion of the appropriate college department; and
2. AP credits may be granted for the laboratory portion of the course. Students applying for such credit must document their high school laboratory experience with lab reports/notebooks. The decision to grant credit for the laboratory portion will be made by the appropriate college department

Credits for other AP exams may be available.

Contact the Admissions and Records Office for more information.

## 2015-2016

### *International Baccalaureate (IB)*

Students may earn college credit by taking International Baccalaureate tests while in high school and providing official transcripts showing satisfactory scores. International Baccalaureate credits will be accepted for college credit on a case-by-case basis until an official college policy is put in place.

Up to 30 credits of IB credit with scores of four or higher on the higher level exam will be accepted; however, only a maximum of 15 credits may be used towards graduation.

#### **IB Credit**

Flathead Valley Community College recognizes IB achievement and awards eight credits for each higher level exam passed with examination scores of four or higher. Standard level exams are not accepted.

## Transfer and Grading

IB Examination	Minimum Score	Semester Credits	Gen Ed*
Biology HL	4	8	NL
Business & Mgmt. HL	4	8	-
Chemistry HL	4	8	NL
Classical Languages HL	4	8	GH
Design Technology HL	4	8	-
Economics HL	4	8	B
English A1 HL	4	3 credits W 5 credits H	W,H
English A2 HL	4	8	W
English B HL	4	8	W
French A1 HL	4	8	GH
French A2 HL	4	8	GH
French B HL	4	8	GH
Geography HL	4	8	G
German A1 HL	4	8	GH
German A2 HL	4	8	GH
German B HL	4	8	GH
History HL	4	8	B
Info Tech Global Society (ITGS) HL	4	8	-
Islamic History HL	4	8	GB
Language B HL	4	8	GH
Mathematics HL	4	8	M
Philosophy HL	4	8	H
Physics HL	4	8	NL
Psychology HL	4	8	A
Social & Cultural Anthropology HL	4	8	GA
Spanish A1 HL	4	8	GH
Spanish A2 HL	4	8	GH
Spanish B HL	4	8	GH
Theatre Arts HL	4	8	FH
Visual Arts HL	4	8	F

#### \*Key

- - Elective  
 F - Fine Arts  
 H - Humanities  
 NL - Natural Science w/Lab  
 W - Writing  
 A, B - Social Sciences  
 G - Global Issues  
 M - Mathematics  
 N - Natural Science w/o Lab

## *Repeating Courses*

Students may repeat any courses offered by FVCC. However, credits will be granted for the courses only once unless the catalog lists the classes as repeatable for credit. Each time students take the classes, the grades and credits will be recorded on their transcripts. This information will not be removed, but only the last grades and credits will affect the grade point averages and total number of credits. Non-letter grades such as I, AU, W and WI will not replace letter grades such as A or B. If students receive financial aid or veterans' benefits, they should check with the Financial Aid Office before repeating a course.

## *Course Challenge*

A student admitted to FVCC may petition to challenge courses based on work done through private study and/or experience or to validate courses taken at non-accredited institutions. Course challenges will be considered on an individual case basis. Only courses listed in the current college catalog may be considered for challenge, although not all of the courses may be challenged. Additional stipulations include the following:

- Students are not permitted to challenge a prerequisite course after having completed an advanced course at FVCC or any accredited college.
- Credit by examination will not be granted for a course that a student has previously taken for credit or audited. Credit will be granted provided the student earns the equivalent of a grade of "C" or better.
- Neither the grade of "S" nor credit earned through the challenge process will be counted in any given semester to determine credit load or grade point average, nor will they be included in computing cumulative grade point averages.
- Students may challenge a course prior to or during enrollment through the first week of the semester.
- Prior to challenging a course, a request to challenge form must be completed with the approval of the full-time faculty member and Vice President of Academic Affairs.
- A \$50/course challenge fee must be paid before taking the exam.

## *Math Waiver/Substitution Policy*

Students with a math disability may apply to waive M 095~, M 121M and M 145M, provided the courses are not program requirements. The waivers apply only to potential Associate of Arts graduates. All students may petition for math course substitutions. Applicants should make requests prior to the semester in which graduation is expected. Contact Laura VanDeKop at (406) 756-3998 for a complete copy of the policy.

## *WRIT 101 Bypass Policy*

Students who meet one of the following criteria may bypass WRIT 101W, College Writing I, and enroll in WRIT 201W, College Writing II, to satisfy a WRIT 101W requirement. The student does not receive a grade for WRIT 101W, nor is the student waiving a composition course. This is not a challenge policy, meaning that

students must still take a writing course as required by their program or course of study, but can choose to challenge themselves in a higher level course if one of the following criteria is met:

- A score of 99 on the COMPASS placement test
- A score of at least 32 on the ACT combined English/Writing section
- A score of at least 11 on the ACT Writing Test Subscore
- A score of at least 700 on the SAT Writing Section
- A score of at least 11 on the SAT Essay Subscore
- A score of at least 5.5 on the Montana University System Writing Assessment

Students may still bypass WRIT 101W through AP, IB, and CLEP.

## *Interactive Television (ITV) Courses*

State-of-the-art interactive television (ITV) allows both the Kalispell campus and the Libby campus to televise and receive live, two-way audio and video transmissions of select FVCC courses. Additional technology fees apply only to students registering to attend at a remote site. These courses will have section numbers in the 70's in semester schedules.

## *Online Courses*

Online courses allow students and instructors greater flexibility. Credit for these courses may be applied to certificate or degree programs. Additional technology fees apply. Students are responsible for obtaining access to a computer with internet access, the required browser and software, and a personal email account. For specific requirements, visit [www.fvcc.edu/academics/online-education.html](http://www.fvcc.edu/academics/online-education.html) and click on "Please click here for a system check before you log in." Students may use the campus computer labs as scheduling permits.

There are two types of online courses available at FVCC, hybrid and fully online. Hybrid courses replace some face-to-face time with an online requirement, but there will still be some required meetings on campus. These courses will have section numbers in the 90's in semester schedules.

Fully online courses have no requirement for coming to campus or meeting face-to-face with instructors and take place completely online. However, online courses are not self-paced. Students are responsible for accessing their courses promptly and for meeting course due dates and deadlines. These courses will have section numbers in the 80's in semester schedules.

For complete information regarding online courses at FVCC, including how to access your courses once you have registered, please visit "Online Resources" on the FVCC website at <http://www.fvcc.edu/academics/online-education.html>.

Students registered for a fully online course who need technical assistance can contact the FVCC Help desk at 1-877-443-5741 or [onlinehelp@fvcc.edu](mailto:onlinehelp@fvcc.edu). Desire2Learn also provides 24/7 technical support at 1-877-325-7778.

## 2015-2016

### *Independent Study*

Credits through independent study are available to allow students to study in subject areas outside existing courses.

An independent study proposal should include a detailed description stating the objective(s) and the methodology of research and/or instruction to be employed by the student and the instructor.

An independent study course is developed with the guidance of a supervising full-time faculty member. The Vice President of Academic Affairs and division chair must approve all independent study proposals. Each credit of independent study should involve 45 plus hours of study. Regularly scheduled classes are not available for independent study.

Regular tuition and fee costs will be charged for independent study courses, and registration must be completed before starting the course.

A \$40 late registration fee will be assessed to students registering for an independent study course after the third week of the semester or after the start of the course, whichever is later.

### *Directed Study*

Directed study courses are courses currently approved by the Curriculum Committee, included in the current catalog and taught on an individual basis by full-time instructors at the same level as regularly scheduled courses.

The directed study option can be utilized only in unusual circumstances and is not an alternative to inadequate planning or inconvenient timing. Only persons who normally teach the courses are expected to teach the directed study courses. Regular tuition and fees will be charged for every directed study credit. Registration must be completed within the first three weeks of the semester.

## Grades

### *Grade Reports*

Grade reports are available at the end of each academic semester after all financial obligations to the college are met. Grade reports are available online at [www.fvcc.edu](http://www.fvcc.edu) (student portal) or students can provide a self-addressed, stamped envelope to the Admissions and Records office.

Students are required to meet course requirements to receive grades and credits. The courses will not be recorded on official transcripts unless one of the below grades is received.

## Transfer and Grading

All of the campuses that make up the Montana University System have adopted a grading system that includes pluses and minuses. This means that faculty system-wide now have the right to award letter grades that include a plus or a minus (i.e., B+, B and B-; or C+, C and C-). Students should be aware of the following details; however, faculty members are not required to attach a plus or minus to their letter grades. That flexibility is based on the very important principle that faculty have the right to determine grades in their classes, based on their evaluation of student work. The highest grade a student can earn is an A. An A+ grade is not possible. Pluses and minuses will not be attached to an F. If a student has failed a class, the amount or degree of failure is unimportant.

GRADE	INTERPRETATION	GRADE POINTS
A	High degree of excellence	4.0
A-		3.7
B+		3.3
B	Above average	3.0
B-		2.7
C+		2.3
C	Average	2.0
C-		1.7
D+		1.3
D	Below average	1.0
D-		0.7
F	Failure	0.0
S	Satisfactory	N/A
	<i>Equivalent to a "C" or better</i>	
SA*	Satisfactory/Advance	N/A
	<i>The student has achieved the needed competencies to advance to a higher level course.</i>	
SR*	Satisfactory/Repeat	N/A
	<i>The student has met individual expectations but must repeat before advancing to a higher level course.</i>	
U	Unsatisfactory completion of course	N/A
I	Incomplete	N/A
AU	Audit	N/A
W	Withdrawal	N/A
WI	Withdrawal by Instructor or Administrative Withdrawal	N/A
NG	No Grade	N/A
	<i>The instructor has not submitted a grade for the student at the time of posting.</i>	

\* This grading option is only available for developmental courses that can be repeated for credit.

## Grade Point Average (GPA)

GPA is determined by dividing total grade points by number of semester hours attempted. S, SA, SR, U, I, W, WI, AU and NG grades are not included in the calculations. If the course has been repeated, the last grade received in a course will be used to calculate the GPA with the exception of W, WI, AU, NG or I grades.

If a student receives a grade he/she feels is inaccurate or inequitable, the student should consult with the instructor. Only the instructor can initiate a grade change. This is done by completing a grade change form and filing it with the Admissions and Records Office. The change will appear on the student's transcript, and the student will not receive any other notice of the correction. If the student feels the situation has not been resolved equitably, he/she should review the Student Appeals Procedure. Copies of this procedure are available by calling the Dean of Students at (406) 756-3812. Effective fall semester 2011, the maximum time frame to petition a revision/change to student transcripts or records is within two years of the semester in question. The maximum time frame to petition adjustments to records prior to fall semester 2011 is within 10 years of the semester in question.

## Honors

FVCC recognizes academic achievements according to the following standards:

### Dean's List

A student taking 12 or more credits in courses numbered 100 or above and earning a grade point average (GPA) of 3.5 or more for that semester will be placed on the Dean's List. The Dean's List is distributed to area newspapers for publishing unless a student files a "Release of Information" form in the Admissions and Records Office to not have this information published.

### Graduation with Honors

Students graduating with final cumulative grade point averages of at least 3.75, will receive honors designations on their college transcripts. To be acknowledged at the graduation ceremony with high honors, students must have a cumulative GPA of at least 3.75 as of the semester prior to graduation.

## Satisfactory/Unsatisfactory

Satisfactory/Unsatisfactory ("S/U") grading is available only at the discretion of the instructor. A limit of 15 semester credits graded "S" may count toward an associate degree at FVCC.

*Note: Transfer students must check their transfer institutions' policies regarding acceptance of "S" credits.*

## Minimum Course Grades

All students must earn a "D-" or better in all classes used to satisfy elective credits in an associate or baccalaureate degree program; a "C-" or better in all classes used to satisfy a general education program; and a "C-" or better in all classes used to satisfy the prerequisites or required courses in a major, minor, option or certificate.

*Note: Students need to be aware that although "C-" grades are accepted in general education, prerequisite and required courses (with some exceptions), students must maintain a cumulative grade point average of 2.0 ("C") to graduate. The grade point equivalent of the "C-" grade is 1.7 which does not meet the 2.0 GPA graduation requirement.*

*The Minimum Course Grades policy applies to all students who are enrolled in the Montana University System or the three community colleges on or after fall 2005.*

*Copies of the Minimum Course Grades policy (MUS policy 301.5.3) are available from the FVCC Admissions and Records Office or from Montana Board of Regents' website at <http://mus.edu/transfer/minimumgrades.asp>.*

## Incomplete

An incomplete ("I") grade is given when, in the opinion of the instructor, there is strong probability the student can complete the course without retaking it. In all cases, the "I" grade is given at the discretion of the instructor within the following guidelines:

- The student has been in attendance and doing passing work up to three weeks before the end of the semester;
- The student is unable to complete the requirements of the course on time because of extenuating circumstances, i.e., illness, death or illness in the immediate family, family emergencies, or military orders;
- The instructor sets the conditions for the completion of the coursework including the time period within which the work must be made up (Due date for make-up);
- The instructor prepares an "I" Grade Authorization form which specifies the coursework that must be made up as well as the time period within which the work must be completed. A copy of this form must be attached to the instructor's grade roster;
- An "I" grade shall be made up within 12 months from the end of semester the "I" grade was assigned unless the instructor sets a shorter time period.
- An "I" grade converts to a failure ("F") if it is not made up by the due date.
- The "I" (incomplete) must be completed/made up through the instructor who assigned the "I" grade; the instructor changes the grade with the Grade Change Form which must be submitted to the Admissions and Records Office.



## 2015-2016

### *Audit*

A student who audits a course attends class but does not receive credit for the course. To audit a course, a student must register for the course, complete an audit form and submit the form to the Admissions and Records Office by the date listed in the academic calendar or 75% point of short or late starting courses.

Instructor's approval is required before a student may audit a class. The grade of "AU" will be recorded on the student's transcript for this course. Full tuition and fees are charged for course audits. The audit grade cannot be changed to a letter grade once grades have been posted to the student's transcript. In order to receive a letter grade in an audited course, a statement from the instructor and the student rescinding the audit grade option must be submitted to the Admissions and Records Office by the 75% point of the course.

Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before auditing a course.

### *Withdrawal*

A withdrawal is initiated by a student who wishes to drop a course. The effective date of withdrawal is the date the drop form is received by the Admissions and Records Office. Refunds, etc., are governed by regulations in effect on that date. In order to prevent a course from appearing on a student's transcript, he/she is required to drop the class during its refund period.

- Failing to attend class DOES NOT constitute withdrawal.
- To withdraw from a course lasting the full semester, the student must have a schedule change form on file in the Admissions and Records Office by the date listed in the academic calendar.
- The student can withdraw from short or late starting courses until the 75 % point of the course.

### *Withdrawal by Instructor*

The "WI" (Withdrawal by Instructor) grade may be issued at the discretion of the instructor only when extenuating circumstances prohibit a student from completing the course. This grade is not an option for students who have earned an "F" in the course.

## Transfer and Grading

### *Medical Withdrawal*

A student may be eligible to withdraw from college classes due to certain medical conditions (applies to student or immediate family member only).

In order to qualify for this benefit, a student must complete an official withdrawal form, accompanied by medical documentation, signed by a doctor and attesting to an inability to complete classes due to health problems. Submit these two items to the Admissions and Records Office with a completed medical withdrawal form. Forms are available in the Admissions and Records Office.

The documents will be reviewed, and if they are approved, all grades for the semester in question will be removed and replaced with a "W." "Medical Withdrawal" will be printed on the student's transcript across the semester in question.

### *Early Alert Program*

The Early Alert program is a college-wide effort designed to support student success by identifying and warning students early in the semester that may be experiencing academic difficulties. The program is not to penalize students but assist them so they can successfully complete their courses. Alerts are issued by participating faculty and are means for them to communicate to their students that a change is necessary and to activate additional resources to help them. Alerts may be sent for the following reasons:

- Excessive Absences
- Excessive Tardiness
- Academic Concern
- Low Homework/Quiz Scores
- Low Test scores

Early Alerts are issued via e-mail and the Student Portal. All alerted students will receive a follow-up phone call and/or letter. To ensure students receive this valuable support, students should update or confirm their email, phone number and address are correct in the Student Portal each semester. Students who have received an Early Alert notice are urged to speak to their instructor and/or Retention Coordinator to work out a constructive plan for the remainder of the semester. Early Alerts are not grades and there are no permanent records of the alerts.

## *Student's Responsibilities*

The following regulations, procedures and definitions are important for all students taking classes for credit. Understanding and following these procedures is an essential part of acquiring a college degree or other credentials. Any questions should be directed to the Admissions and Records Office.

Students are responsible for following their curriculum, meeting graduation requirements and/or meeting transfer requirements. Assistance in planning acceptable programs is available from faculty advisors and FVCC counselors.

## *Graduation Application*

Official applications are due the last week in February to graduate at the end of spring, last week in July to graduate at the end of summer and mid-November to graduate at the end of fall semester. See the academic calendar for specific dates and deadlines. Graduation information will be recorded on the student's transcript by the following month after the student has graduated. Applications for Graduation are available from the Admissions and Records Office in BH 111.

Students commonly graduate from FVCC under the catalog in use during the first year they attended FVCC. However, a student may graduate using any FVCC catalog under which they have attended, up to five years prior to graduation. For example, the 2015-2016 catalog can be used through summer 2021. College or program requirements may change to comply with accreditation requirements, professional certification and licensing requirements, etc. In the event a change is made after the catalog is published, the changes will be posted online.

If a student initially enrolled more than five years before their graduation, they must select a catalog program in affect during the five-year period prior to their expected graduation.

## *Graduation Waivers and Substitutions*

Given unusual circumstances, specific program requirements may be waived with the approval of the advisor, the instructor supervising the specific program and the Division Chair. This approval must be in writing, signed and dated. Program waivers are granted only when there is evidence of competency that will satisfy the program requirement.

General Education course requirements may be waived in extremely unusual situations. The waiver must be approved by a majority vote of the Curriculum Committee and by the student's advisor and the Division Chair.

Individuals with prior work experience may request an appropriate course substitution for a program requirement(s). The substitute course must be of equal or greater academic or technical content as that of the required course and must have the approval of the Division Chair and program director.

A single course may not be used to meet more than one group requirement, e.g., if FRCH 101GH is used to meet the humanities requirement, it cannot be used to meet the global issues requirement.

## *Academic Advising*

Academic advising is critical to student success. FVCC is committed to providing every student with meaningful academic advising. FVCC employs a mixed advising model with full-time faculty advisors and Learning Center advisors.

All degree-seeking students (including transfer students) are required to meet with an academic advisor for course schedule approval each semester. Non-degree students taking courses with prerequisites need to meet with an advisor in the Learning Center. Degree students are blocked from registration until they meet with their advisors.

Students with a declared major are generally assigned to a faculty advisor most closely aligned to their field of study.

### **The role of the advisor:**

- Assist students with defining and developing realistic educational and career plans.
- Make available pertinent and accurate information about FVCC programs and professional requirements.
- Approve designated educational transactions (e.g. registration, drop-adds, directed study, petitions, graduation applications, other forms).
- Assist students in the evaluation of progress toward established goals.
- Provide accurate information about resources.
- Assist students in identifying career opportunities.
- Refer students when attitudinal, educational or personal problems require intervention.
- Reinforce student responsibility for academic decisions and behaviors. Encourage program completion.

### **The role of the student:**

- Spend time and effort to identify and clarify personal values, abilities, interests and goals.
- Communicate and share ideas in the academic planning process.
- Become knowledgeable about and adhere to institutional procedures, policies and requirements. This means reading, understanding and utilizing the catalog.
- Contact and make appointments with advisors when required or in need of assistance. The college catalog has phone numbers, email addresses and office locations. Office hours are posted outside faculty offices.
- Notify the advisor about changes in appointments, career or major plans or course schedules.
- Plan in advance for advising sessions: bring necessary materials such as transcripts, placement scores, FVCC catalog, proposed class schedule and questions.
- Follow through on actions identified in each academic advising session.
- Request a change in advisor, if necessary (change of major) by completing a change of major/advisor form at the Admissions and Records Office.
- Accept final responsibility for all decisions.
- Most courses assume proficiency in basic computer skills.

*Associate of Applied Science Degree Requirements (AAS)*

The Associate of Applied Science (AAS) degree is an occupational degree and is the only degree FVCC awards with a specified area of emphasis.

To receive the Associate of Applied Science degree, the following must be met:

- I. Completion of a minimum of 64 semester credit hours.
- II. Completion of course requirements as outlined for the specific AAS program listed in the "Programs" section of the catalog, which include three Related Instruction requirements: Communication (one speaking, one writing), Interactions, and Quantitative Literacy.
- III. Final cumulative grade point average of 2.0 or above. A grade of "C-" or better is required for all program requirements unless otherwise stated.
- IV. At least 20 semester credits earned at FVCC and the final 10 credits earned at FVCC.
  - V. A limit of 15 semester credits graded "S" may count toward the Associate of Applied Science degree. Some programs may further limit "S" grades.
- VI. Courses within the department "SR" (Senior) cannot be used toward an AAS degree.

Note: Substitutions for Related Instruction requirements must have Program Director, Division Chair, and Gen. Ed. Team approval.

**(One course cannot satisfy more than two Related Instruction areas.)**

*Certificate of Applied Science Degree Requirements (CAS)*

To receive a Certificate of Applied Science, the following must be met:

- I. Completion of a minimum of 30 semester credit hours for each certificate.
- II. Completion of course requirements as outlined for the specific CAS program listed in the "Programs" section of the catalog, which include three Related Instruction requirements: Communication (only one course required, speaking or writing), Interactions, and Quantitative Literacy.
- III. Final cumulative grade point average of 2.0 or above. A grade of "C-" or better is required for all program requirements unless otherwise stated.
- IV. At least one-third of the program credits must be earned at FVCC.
  - V. Courses within the department "SR" (Senior) cannot be used toward a CAS.

Note: Substitutions for Related Instruction requirements must have Program Director, Division Chair, and Gen. Ed. Team approval.

**(One course cannot satisfy more than two Related Instruction areas.)**

*Certificate Requirements (CT)*

To receive a Certificate, the following must be met:

- I. Completion of a minimum of 16 semester credit hours.
- II. Completion of course requirements as outlined for the specific CT program listed in the "Programs" section of the catalog.
- III. Final cumulative grade point average of 2.0 or above. A grade of "C-" or better is required for all program requirements unless otherwise stated.
- IV. At least one-third of the program credits must be earned at FVCC.
  - V. Courses within the department "SR" (Senior) cannot be used toward a certificate.

*Related Instruction Learning Outcomes*

The goal of Related Instruction at FVCC is to prepare students for a productive life of work by developing skills in the areas of communication, computation, and human relations that align with and support program specific outcomes. Related Instruction courses are embedded within the AAS and CAS program curricula and are organized into three categories: Communication, Interactions, and Quantitative Literacy.

**Communication**

Upon completion of the Communication Related Instruction requirement, students should be able to express, interpret, or modify ideas to communicate effectively.

Components:

- A. Speaking
  - Develop the main point of a speech/presentation with specific, concrete examples and details
  - Present in an organized manner, connecting sections with effective transitions
  - Use appropriate delivery strategies and techniques
  - Use outside sources, vocabulary and visual aids with accuracy and relevancy
  - Actively listen using paraphrasing, questions and reflections
  - Recognize that conflict is natural and demonstrate competent methods/strategies of conflict management
  - Employ strategies to overcome communication problems
- B. Writing
  - Effectively use relevant, adequate support details, examples, reasons, logical arguments, facts, and/or statistics
  - Organize and connect major ideas with effective transitions
  - Use a variety of sentence structures and appropriate word choice in the expression of ideas for readers and purposes
  - Use appropriate conventions in areas of mechanics, usage, sentence structure, spelling and format

**Interactions**

Upon completion of the Interactions Related Instruction requirement, students should be able to collaborate with others in complicated, dynamic, and/or ambiguous situations.

Components:

- A. Self-Awareness
  - Demonstrate responsibility/accountability for one's actions/thoughts/emotions
  - Display self-initiative
- B. Interpersonal Communication/Teamwork
  - Apply appropriate verbal and nonverbal communication skills
  - Demonstrate methods/strategies of conflict management
  - Respond to changing job demands and help others succeed as needed
- C. Human Relations/Ethics
  - Respect cultural and ethnic differences
  - Maintain positive working relationships
  - Practice integrity and observe confidentiality
  - Apply ethical principles to situations and make decisions appropriately

**Quantitative Literacy**

Upon completion of the Quantitative Literacy Related Instruction requirement, students should be able to understand and apply quantitative concepts and reasoning using numerical data.

Components:

- A. Ratios and Percents
  - Recognize problems as ratios or proportions
  - Use proportional reasoning, when appropriate
- B. Graphical Interpretation
  - Collect and identify information from graphical representations of data using appropriate terminology/units of measurement
  - Evaluate graphical information and interpolate and/or extrapolate as necessary
  - Recognize trends in data from a graphical display
- C. Problem Solving
  - Represent mathematical information symbolically and numerically as needed to solve a problem
  - Evaluate results for acceptable solutions and communicate findings using appropriate mathematical language and symbolism.

## Communication Courses

(two courses)

### A - Speaking

(one course)

- AHXR 101 - Patient Care in Radiology Credit(s): 2 \*
- BGEN 110 - Applied Business Leadership Credit(s): 3
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- COMX 150CF - Video Communication Credit(s): 3
- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
- CULA 299 - Capstone: Professional Chef IV Credit(s): 12 \*
- GDSN 250 - Graphic Design I Credit(s): 3
- GDSN 274 - Portfolio Presentation Credit(s): 1 \*
- NRSR 144 - Core Concepts of Mental Health Nursing Credit(s): 2 \*

### Interactions Courses:

(one course)

- AGSC 202 - Organic Crop Production: Fall Credit(s): 3
- AGSC 202 - Organic Crop Production: Spring Credit(s): 3
- AHPT 105 - Introduction to Physical Therapist Assisting Credit(s): 3
- AHXR 295 - Radiographic Clinical: V Credit(s): 8 \*
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMGT 237 - Human Relations in Business Credit(s): 3
- CJUS 121A - Introduction to Criminal Justice Credit(s): 3
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
- CULA 104 - Professional Chef II: Savory Credit(s): 5 \*
- ECP 104 - Workplace Safety Credit(s): 1
- ENST 285 - Environmental Policy and Impact Analysis Credit(s): 3
- GDSN 247 - Digital Portfolio Preparation Credit(s): 4 \*
- NRSR 138 - Gerontology for Nursing Credit(s): 2 \*
- NRSR 271GN - Conservation Ecology Credit(s): 3
- SRVY 270 - Legal Principles in Surveying I Credit(s): 5 \*

### B - Writing

(one course)

- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMGT 237 - Human Relations in Business Credit(s): 3
- CJLE 109C - Police Report Writing Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- WRIT 121C - Introduction to Technical Writing Credit(s): 3 \*

### Quantitative Literacy Courses:

(one course)

- ACTG 122 - Accounting and Business Decisions Credit(s): 2
- AHMS 100 - Math Applications for Allied Health Professionals Credit(s): 3 \*
- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*
- CULA 299 - Capstone: Professional Chef IV Credit(s): 12 \*
- FORS 153 - Forest Resource Calculations Credit(s): 3 \*
- M 090~ - Introductory Algebra Credit(s): 4 \*
- M 095~ - Intermediate Algebra Credit(s): 4 \*
- M 111 - Technical Mathematics Credit(s): 3 \*
- M 114 - Extended Technical Mathematics Credit(s): 3 \*
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- M 121M - College Algebra Credit(s): 3 \*
- M 123 - Surveying Mathematics I Credit(s): 2 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

**Associate of Arts (AA) Degree**

The Associate of Arts (AA) degree is a general transfer degree. This degree indicates that the student has completed a course of study equivalent to the first two years of a bachelor degree. This degree does not officially include a major or minor course of study.

With an Associate of Arts degree from FVCC, a student can transfer to any Montana University System school with junior class status and be guaranteed that the lower division general education core requirements have been completed for the transfer school.

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

- I. Completion of 60 semester credits in courses numbered 100 level and above. A course cannot satisfy more than one general education core or graduation requirement.
- II. Completion of the General Education Core Curriculum\* (30 credits).
- III. Completion of Additional Degree Requirements: three semester credits of Fine Arts (F) and three semester credits of either Writing (W), Communications (C), Humanities (H), or Social Sciences (A or B).
- IV. Final cumulative grade point average of 2.0 or above. A grade of "C-" or better is required for all courses other than electives unless otherwise stated.
- V. At least 20 semester credits earned at FVCC and the final 10 credits earned at FVCC.
- VI. A limit of 15 semester credits graded "S" may count toward the Associate degree. Check with transfer institution regarding the acceptance of "S" credits.

**GRADUATION CHECKLIST: Associate of Arts (AA) Degree**

✓ General Education Core*	Min. Credits	# of Courses	Courses Completed	Grade	Credits
WRITING (W)	3	1 W			
COMMUNICATIONS (C)	3	1 C			
MATHEMATICS (M)	3	1 M			
HUMANITIES (H)/ FINE ARTS (F)	6	1 H <b>and</b> 1 H or 1 F			
SOCIAL SCIENCES (A, B)	6	1 A <b>and</b> 1 B			
NATURAL SCIENCE (NL, N)	6	1 NL <b>and</b> 1 NL or 1 N			
GLOBAL ISSUES (G)	3	1 G			
<b>Total Credits :</b>					

✓ Additional Degree Requirements	Min. Credits	# of Courses	Courses Completed	Grade	Credits
FINE ARTS (F)	3	1 F			
WRITING (W) or COMMUNICATIONS (C) or HUMANITIES (H) or SOCIAL SCIENCES (A, B)	3	3 credits from W, C, H, A or B courses			
<b>Total Credits :</b>					

✓ Major Requirements or Electives	20-24 Credits	Grade	Credits
<b>Total Credits:</b>			

\*Refer to the General Education Core Curriculum for a list of courses meeting these requirements.

*Total: 60 credits*



Associate of Science (AS) Degree

The Associate of Science (AS) degree is a general transfer degree. This degree indicates that the student has completed a course of study equivalent to the first two years of a bachelor degree. This degree does not officially include a major or minor course of study.

With an Associate of Science degree from FVCC, a student can transfer to any Montana University System school with junior class status and be guaranteed that the lower division general education core requirements have been completed for the transfer school.

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

- I. Completion of 60 semester credits in courses numbered 100 level and above. A course cannot satisfy more than one general education core or graduation requirement.
- II. Completion of the General Education Core Curriculum\* (30 credits).
- III. Completion of Additional Degree Requirements: six semester credits of Mathematics (M) and/or Natural Science (NL or N or L).
- IV. Final cumulative grade point average of 2.0 or above. A grade of "C-" or better is required for all courses other than electives unless otherwise stated.
- V. At least 20 semester credits earned at FVCC and the final 10 credits earned at FVCC.
- VI. A limit of 15 semester credits graded "S" may count toward the Associate degree. Check with transfer institution regarding the acceptance of "S" credits.

GRADUATION CHECKLIST: Associate of Science (AS) Degree

✓	General Education Core*	Min. Credits	# of Courses	Courses Completed	Grade	Credits
	WRITING (W)	3	1 W			
	COMMUNICATIONS (C)	3	1 C			
	MATHEMATICS (M)	3	1 M			
	HUMANITIES (H)/ FINE ARTS (F)	6	1 H and 1 H or 1 F			
	SOCIAL SCIENCES (A, B)	6	1 A and 1 B			
	NATURAL SCIENCE (NL, N)	6	1 NL and 1 NL or 1 N			
	GLOBAL ISSUES (G)	3	1 G			
<b>Total Credits :</b>						

✓	Additional Degree Requirements	Min. Credits	# of Courses	Courses Completed	Grade	Credits
	MATHEMATICS (M) or NATURAL SCIENCE (NL, N, L)	6	6 credits from M, NL, N, or L courses			
<b>Total Credits :</b>						

✓	Major Requirements or Electives	20-24 Credits	Grade	Credits
<b>Total Credits:</b>				

\*Refer to the General Education Core Curriculum for a list of courses meeting these requirements.

Total: 60 credits

**Combined Associate of Arts (AA) and Associate of Science (AS) Degree**

To receive both transfer degrees (Associate of Arts and Associate of Science), the degree requirements for BOTH degrees must be met. An additional 15 credits are required as specified below.

To receive both the AA and AS degrees, the following requirements must be met:

- I. Completion of 75 semester credit hours in courses numbered 100 level and above. A course cannot satisfy more than one general education core or graduation requirement.
- II. Completion of the General Education Core Curriculum\* (30 credits).
- III. Completion of three semester credits of Fine Arts (F) and three semester credits of either Writing (W), Communications (C), Humanities (H), or Social Sciences (A or B).
- IV. Completion of six semester credits of Mathematics (M) and/or Natural Science (NL or N or L).
- V. Final cumulative grade point average of 2.0 or above. A grade of "C-" or better is required for courses other than electives unless otherwise stated.
- VI. At least 20 semester credits earned at FVCC and the final 10 credits earned at FVCC.
- VII. A limit of 15 semester credits graded "S" may count toward the Associate degree. Check with transfer institution regarding the acceptance of "S" credits.

**GRADUATION CHECKLIST: Associate of Arts (AA) and Associate of Science (AS) Degrees**

✓ General Education Core*	Min. Credits	# of Courses	Courses Completed	Grade	Credits
WRITING (W)	3	1 W			
COMMUNICATIONS (C)	3	1 C			
MATHEMATICS (M)	3	1 M			
HUMANITIES (H)/ FINE ARTS (F)	6	1 H and 1 H or 1 F			
SOCIAL SCIENCES (A, B)	6	1 A and 1 B			
NATURAL SCIENCE (NL, N)	6	1 NL and 1 NL or 1 N			
GLOBAL ISSUES (G)	3	1 G			
<b>Total Credits :</b>					

✓ Additional Degree Requirements	Min. Credits	# of Courses	Courses Completed	Grade	Credits
FINE ARTS (F)	3	1 F			
WRITING (W) or COMMUNICATIONS (C) or HUMANITIES (H) or SOCIAL SCIENCES (A, B)	3	3 credits from W, C, H, A or B courses			
MATHEMATICS (M) or NATURAL SCIENCE (NL, N, L)	6	6 credits from M, NL, N, or L courses			
<b>Total Credits:</b>					

✓ Major Requirements or Electives	20-24 Credits	Grade	Credits
<b>Total Credits:</b>			

\*Refer to the General Education Core Curriculum for a list of courses meeting these requirements.

*Total: 75 credits*

## General Education Core Curriculum

Montana University System General Education Core criteria, in addition to departmental review, were used as a guideline in determining the core requirements listed below. Please note in some cases an individual course may transfer to one school, but not another, as an individual general education core course.

An FVCC student having completed ALL the FVCC General Education Core requirements can transfer to any Montana University System school and be guaranteed the lower division general education core requirements of that school have been met.

### Writing (W): 3 credits

Writing courses focus on the writing process, rhetorical knowledge, conventions, critical thinking, reading, and research. Writing courses are foundational to success in college-level writing assignments.

Complete three semester credits selected from the following:

- WRIT 101W - College Writing I Credit(s): 3 \*
- WRIT 201W - College Writing II Credit(s): 3 \*

### Communications (C): 3 credits

Communication courses will help students with the diverse applied writing and listening, speaking, and presenting opportunities they will encounter in their lives.

Complete three semester credits selected from the following:

- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- CJLE 109C - Police Report Writing Credit(s): 3
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- COMX 150CF - Video Communication Credit(s): 3
- COMX 217CF - Oral Interpretation of Literature Credit(s): 3
- JRNL 111C - Student Newspaper Credit(s): 3 \*
- JRNL 272C - News Writing and Reporting Credit(s): 3
- THTR 122C - Acting for Non-Majors Credit(s): 3
- THTR 239CF - Creative Drama and Dance for K-8 Credit(s): 3
- WRIT 121C - Introduction to Technical Writing Credit(s): 3 \*

### Mathematics (M): 3 credits

Mathematics courses focus on comprehension of elementary quantitative concepts, development of quantitative reasoning skills, and the ability to reasonably ascertain the implications of quantitative information.

Complete three semester credits selected from the following:

- HONR 252HM - Honors: Humanities/Mathematics Credit(s): 4 \*
- HONR 254AM - Honors: Social Sciences-A/Mathematics Credit(s): 4 \*
- HONR 256NM - Honors: Science/Mathematics Credit(s): 4 \*
- HONR 259MB - Honors: Mathematics/Social Sciences-B Credit(s): 4 \*
- HONR 263FM - Honors: Fine Arts/Mathematics Credit(s): 4 \*
- HONR 265GM - Honors: Global Issues/Mathematics Credit(s): 4 \*
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- M 121M - College Algebra Credit(s): 3 \*
- M 132M - Number and Operations for K-8 Teachers Credit(s): 3 \*
- M 133M - Geometry and Geometric Measurement for K-8 Teachers Credit(s): 3 \*
- M 145M - Mathematics for the Liberal Arts Credit(s): 3 \*
- M 152M - Precalculus Algebra Credit(s): 3 \*
- M 153M - Precalculus Trigonometry Credit(s): 4 \*
- M 162M - Applied Calculus Credit(s): 5 \*
- M 171M - Calculus I Credit(s): 5 \*

- M 172M - Calculus II Credit(s): 5 \*
- M 221M - Introduction to Linear Algebra Credit(s): 4 \*
- M 225M - Introduction to Discrete Mathematics Credit(s): 4 \*
- M 273M - Multivariable Calculus Credit(s): 5 \*
- M 274M - Introduction to Differential Equations Credit(s): 5 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*

### Humanities (H)/Fine Arts (F): 6 credits

The Humanities reveal what it means to be human. Humanities courses explore societies, cultures, ideas and art, as well as examine the forces that shape and connect them.

Fine Arts courses explore how people reveal and express feelings, emotions and beliefs, as well as how different cultures value the arts. Through the Fine Arts, students explore the creative process as they study and construct expressions of their own creativity, talent, and passion.

Complete six semester credits in Humanities/Fine Arts selected from the list below. Students may choose to take six credits in Humanities or three credits in Humanities and three credits in Fine Arts.

### Humanities (H)

- ARTH 200FGH - Art of World Civilization I Credit(s): 3
- ARTH 201FGH - Art of World Civilization II Credit(s): 3
- ARTH 228FGH - History of Early Italian Renaissance Credit(s): 3
- ARTH 229FGH - History: Italian Renaissance II Credit(s): 3
- FRCH 101GH - Elementary French I Credit(s): 5
- FRCH 102GH - Elementary French II Credit(s): 5 \*
- GRMN 101GH - Elementary German I Credit(s): 5
- GRMN 102GH - Elementary German II Credit(s): 5 \*
- HONR 251HA - Honors: Humanities/Social Sciences-A Credit(s): 4 \*
- HONR 252HM - Honors: Humanities/Mathematics Credit(s): 4 \*
- HONR 253HN - Honors: Humanities/Science Credit(s): 4 \*
- HONR 257HB - Honors: Humanities/Social Sciences-B Credit(s): 4 \*
- HONR 264GH - Honors: Global Issues/Humanities Credit(s): 4 \*
- ITLN 101GH - Elementary Italian I Credit(s): 5
- ITLN 102GH - Elementary Italian II Credit(s): 5 \*
- LIT 110H - Introduction to Literature Credit(s): 3
- LIT 112H - Introduction to Fiction Credit(s): 3
- LIT 120H - Poetry Credit(s): 3
- LIT 206GH - European Literature of the 20th Century Credit(s): 3
- LIT 210H - American Literature I Credit(s): 3
- LIT 211H - American Literature II Credit(s): 3
- LIT 213H - Montana Literature Credit(s): 3
- LIT 216H - American Short Story Credit(s): 3
- LIT 223H - British Literature I Credit(s): 3
- LIT 224H - British Literature II Credit(s): 3
- LIT 225H - Shakespeare: Tragedy and Comedy Credit(s): 3
- LIT 226H - Shakespeare: History and Tragedy Credit(s): 3
- LIT 240H - Bible as Literature Credit(s): 3

# General Education Requirements

2015-2016

- LIT 271H - Introduction to Science Fiction Literature Credit(s): 4
- LIT 285H - Mythologies Credit(s): 3
- LIT 286GH - Comparative Mythology Credit(s): 3
- LSH 261H - Introduction to the Humanities Origins and Influences I Credit(s): 4
- LSH 262H - Introduction to the Humanities Origins and Influences II Credit(s): 4
- PHL 101H - Introduction to Philosophy: Reason and Reality Credit(s): 3
- PHL 110H - Introduction to Ethics: Problems of Good and Evil Credit(s): 3
- RUSS 101GH - Elementary Russian I Credit(s): 5
- RUSS 102GH - Elementary Russian II Credit(s): 5 \*
- SPNS 101GH - Elementary Spanish I Credit(s): 5
- SPNS 102GH - Elementary Spanish II Credit(s): 5 \*
- THTR 101FH - Introduction to Theatre Credit(s): 3
- THTR 235H - Dramatic Literature Credit(s): 3

## Fine Arts (F)

- ARTH 200FGH - Art of World Civilization I Credit(s): 3
- ARTH 201FGH - Art of World Civilization II Credit(s): 3
- ARTH 225FG - Art and Architecture of Venice Credit(s): 3 \*
- ARTH 227FG - History of Theatre in Venice Credit(s): 3 \*
- ARTH 228FGH - History of Early Italian Renaissance Credit(s): 3
- ARTH 229FGH - History: Italian Renaissance II Credit(s): 3
- ARTJ 210F - Jewelry and Metalsmithing I Credit(s): 3
- ARTJ 211F - Jewelry and Metalsmithing II Credit(s): 3 \*
- ARTJ 212F - Jewelry and Metalsmithing III Credit(s): 3 \*
- ARTZ 105F - Visual Language-Drawing Credit(s): 3
- ARTZ 106F - Visual Language-2-D Foundations Credit(s): 3
- ARTZ 108F - Visual Language-3-D Foundations Credit(s): 3 \*
- ARTZ 221F - Painting I Credit(s): 3
- ARTZ 224F - Watercolor I Credit(s): 3
- ARTZ 231F - Ceramics I Credit(s): 3
- COMX 150CF - Video Communication Credit(s): 3
- COMX 217CF - Oral Interpretation of Literature Credit(s): 3
- CRWR 110F - Beginning Fiction Credit(s): 3
- CRWR 111F - Beginning Poetry Credit(s): 3
- FILM 111F - Basic Videomaking Credit(s): 3 \*
- HONR 260FA - Honors: Fine Arts/Social Sciences-A Credit(s): 4 \*
- HONR 261FB - Honors: Fine Arts/Social Sciences-B Credit(s): 4 \*
- HONR 262FN - Honors: Fine Arts/Science Credit(s): 4 \*
- HONR 263FM - Honors: Fine Arts/Mathematics Credit(s): 4 \*
- HONR 268GF - Honors: Global Issues/Fine Arts Credit(s): 4 \*
- MUSI 101F - Enjoyment of Music Credit(s): 3
- MUSI 105F - Music Theory I Credit(s): 3 \*
- MUSI 106F - Music Theory II Credit(s): 3 \*
- MUSI 130F - History of Jazz Credit(s): 3
- MUSI 132 F - History of Rock and Roll Credit(s): 3
- MUSI 207FG - World Music Credit(s): 3
- PHOT 113F - Understanding Photography Credit(s): 3
- PHOT 116F - Intermediate Black and White Photography Credit(s): 3 \*
- PHOT 154F - Exploring Digital Photography Credit(s): 3 \*
- PHOT 213F - Intermediate Photography Credit(s): 3 \*
- PHOT 254F - Intermediate Digital Photography Credit(s): 3 \*
- PHOT 255F - Introduction to Color Photography Credit(s): 3 \*
- THTR 101FH - Introduction to Theatre Credit(s): 3
- THTR 102F - Introduction to Theatre Design Credit(s): 3

- THTR 120F - Introduction to Acting I Credit(s): 3
- THTR 121F - Introduction to Acting II Credit(s): 3 \*
- THTR 239CF - Creative Drama and Dance for K-8 Credit(s): 3

## Social Sciences (A, B): 6 credits

Social Sciences courses explore people, movements, institutions, and forces which play a major role in human history and development.

Complete six (6) semester credits selected from the following. At least one (1) course must be selected from each of Group A and Group B.

### Group A (one course):

- ANTY 101A - Anthropology and the Human Experience Credit(s): 3
- CJUS 121A - Introduction to Criminal Justice Credit(s): 3
- GPHY 121GA - Human Geography Credit(s): 3
- GPHY 141GA - Geography of World Regions Credit(s): 3
- HONR 251HA - Honors: Humanities/Social Sciences-A Credit(s): 4 \*
- HONR 254AM - Honors: Social Sciences-A/Mathematics Credit(s): 4 \*
- HONR 255AN - Honors: Social Sciences-A/Science Credit(s): 4 \*
- HONR 260FA - Honors: Fine Arts/Social Sciences-A Credit(s): 4 \*
- HONR 266GA - Honors: Global Issues/Social Sciences-A Credit(s): 4 \*
- HS 100A - Introduction to Human Services/Social Work Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- PSYX 240A - Fundamentals of Abnormal Psychology Credit(s): 3 \*
- PSYX 250NA - Fundamentals of Biological Psychology Credit(s): 3 \*
- PSYX 260A - Fundamentals of Social Psychology Credit(s): 3 \*
- SOCI 101A - Introduction to Sociology Credit(s): 3
- SOCI 220GA - Race, Gender and Class Credit(s): 3

### Group B (one course):

- ECNS 101GB - Economic Way of Thinking Credit(s): 3
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- HONR 257HB - Honors: Humanities/Social Sciences-B Credit(s): 4 \*
- HONR 258NB - Honors: Science/Social Sciences-B Credit(s): 4 \*
- HONR 259MB - Honors: Mathematics/Social Sciences-B Credit(s): 4 \*
- HONR 261FB - Honors: Fine Arts/Social Sciences-B Credit(s): 4 \*
- HONR 267GB - Honors: Global Issues/Social Sciences-B Credit(s): 4 \*
- HSTA 101B - American History I Credit(s): 4
- HSTA 102B - American History II Credit(s): 4
- HSTA 111B - American Civil Rights Movement Credit(s): 3
- HSTA 255B - Montana History Credit(s): 3
- HSTR 101B - Western Civilization I Credit(s): 4
- HSTR 102B - Western Civilization II Credit(s): 4
- PSCI 210B - Introduction to American Government Credit(s): 3
- PSCI 250B - Introduction to Political Theory Credit(s): 3

## Natural Science (NL, N): 6 credits

Natural Science courses explore the principles that rule the physical universe by asking and answering questions about processes that can be observed and measured.

Complete two or more courses selected from the following (at least one course must be a conventional laboratory experience selected from Group NL):

## 2015-2016

### **Group NL (Laboratory Courses):**

- BCH 280N - Biochemistry Credit(s): 3 \* **and**
- BCH 281L - Biochemistry Lab Credit(s): 2 \*
- BIOB 101NL - Discover Biology Credit(s): 4 **OR**
- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 105NL - Introduction to Biotechnology Credit(s): 3
- BIOB 126NL - General Science: Earth and Life Science Credit(s): 5
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \* **and**
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- BIOB 256NL - Introduction Biology: Cells to Organisms Credit(s): 4 \*
- BIOB 258NL - Introduction Biology: Organism to Popltns Credit(s): 4 \*
- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*
- BIOE 172N - Introductory Ecology Credit(s): 3 **and**
- BIOE 173L - Introductory Ecology Laboratory Credit(s): 1 \*
- BIOH 104N - Basic Human Biology Credit(s): 3 **and**
- BIOH 105L - Basic Human Biology Laboratory Credit(s): 1 \*
- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
- BIOM 260N - General Microbiology Credit(s): 3 \* **and**
- BIOM 261L - General Microbiology Lab Credit(s): 2 \*
- BIOO 105NL - Introduction to Botany Credit(s): 3
- BIOO 235NL - Rocky Mountain Flora Credit(s): 3
- BIOO 262NL - Introduction to Entomology Credit(s): 3 \*
- CHMY 105NL - Exploration in Chemistry Credit(s): 4 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- CHMY 280NL - Forensic Science I Credit(s): 4 \*
- CHMY 282NL - Forensic Science II Credit(s): 4 \*
- ENSC 105NL - Environmental Science Credit(s): 4
- ENSC 245NL - Soils Credit(s): 4
- GEO 100NL - Introduction to Earth Science Credit(s): 4
- GEO 101NL - Introduction to Physical Geology Credit(s): 4
- GPHY 111NL - Introduction to Physical Geography Credit(s): 4
- PHSX 126NL - General Science: Physical Science Credit(s): 5 \*
- PHSX 205NL - College Physics I Credit(s): 5 \*
- PHSX 207NL - College Physics II Credit(s): 5 \*
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*
- PHSX 222NL - Physics II (with Calculus) Credit(s): 5 \*

#### **Note:**

PHSX 210 and 212 are no longer offered, but can still be counted as fulfilling the NL requirement for students who have already completed the course(s).

### **Group N (Non-Conventional Lab):**

- ASTR 110N - Introduction to Astronomy Credit(s): 3
- BCH 280N - Biochemistry Credit(s): 3 \*
- BIOB 110N - Plant Science Credit(s): 3
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 272N - Genetics and Evolution Credit(s): 4 \*
- BIOB 275N - General Genetics Credit(s): 4 \*
- BIOE 172N - Introductory Ecology Credit(s): 3
- BIOH 104N - Basic Human Biology Credit(s): 3
- BIOM 260N - General Microbiology Credit(s): 3 \*
- BIOO 115N - Practical Botany Credit(s): 3
- BIOO 215N - Field Botany Credit(s): 3
- GEO 130N - Geology of Northwest Montana Credit(s): 3

## General Education Requirements

- HONR 253HN - Honors: Humanities/Science Credit(s): 4 \*
- HONR 255AN - Honors: Social Sciences-A/Science Credit(s): 4 \*
- HONR 256NM - Honors: Science/Mathematics Credit(s): 4 \*
- HONR 258NB - Honors: Science/Social Sciences-B Credit(s): 4 \*
- HONR 262FN - Honors: Fine Arts/Science Credit(s): 4 \*
- HONR 269GN - Honors: Global Issues/Science Credit(s): 4 \*
- NRSG 258N - Principles of Pathophysiology Credit(s): 4 \*
- NRSM 271GN - Conservation Ecology Credit(s): 3
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- PSYX 250NA - Fundamentals of Biological Psychology Credit(s): 3 \*
- WILD 270N - Wildlife Habitat and Conservation Credit(s): 3

### **Global Issues (G): 3 credits**

Global Issues courses explore differences in race, ethnicity, gender, sexual orientation, class, disability status, language, national origin, and/or religion within and across peoples and nations.

Complete three semester credits selected from the following:

- ANTY 220G - Culture and Society Credit(s): 3
- ARTH 200FGH - Art of World Civilization I Credit(s): 3
- ARTH 201FGH - Art of World Civilization II Credit(s): 3
- ARTH 225FG - Art and Architecture of Venice Credit(s): 3 \*
- ARTH 227FG - History of Theatre in Venice Credit(s): 3 \*
- ARTH 228FGH - History of Early Italian Renaissance Credit(s): 3
- ARTH 229FGH - History: Italian Renaissance II Credit(s): 3
- ECNS 101GB - Economic Way of Thinking Credit(s): 3
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- FRCH 101GH - Elementary French I Credit(s): 5
- FRCH 102GH - Elementary French II Credit(s): 5 \*
- GPHY 121GA - Human Geography Credit(s): 3
- GPHY 141GA - Geography of World Regions Credit(s): 3
- GRMN 101GH - Elementary German I Credit(s): 5
- GRMN 102GH - Elementary German II Credit(s): 5 \*
- HONR 264GH - Honors: Global Issues/Humanities Credit(s): 4 \*
- HONR 265GM - Honors: Global Issues/Mathematics Credit(s): 4 \*
- HONR 266GA - Honors: Global Issues/Social Sciences-A Credit(s): 4 \*
- HONR 267GB - Honors: Global Issues/Social Sciences-B Credit(s): 4 \*
- HONR 268GF - Honors: Global Issues/Fine Arts Credit(s): 4 \*
- HONR 269GN - Honors: Global Issues/Science Credit(s): 4 \*
- HSTR 284G - Environmental History Credit(s): 3
- ITLN 101GH - Elementary Italian I Credit(s): 5
- ITLN 102GH - Elementary Italian II Credit(s): 5 \*
- LIT 206GH - European Literature of the 20th Century Credit(s): 3
- LIT 286GH - Comparative Mythology Credit(s): 3
- MUSI 207FG - World Music Credit(s): 3
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
- NRSM 271GN - Conservation Ecology Credit(s): 3
- RLST 100G - Introduction to the Study of Religion Credit(s): 3
- RLST 220G - Interpretations of American Religion Credit(s): 3
- RUSS 101GH - Elementary Russian I Credit(s): 5
- RUSS 102GH - Elementary Russian II Credit(s): 5 \*
- SIGN 101G - Introduction to American Sign Language Credit(s): 3
- SIGN 201G - Intermediate American Sign Language Credit(s): 3 \*
- SIGN 243G - Advanced American Sign Language Credit(s): 3 \*
- SOCI 220GA - Race, Gender and Class Credit(s): 3
- SPNS 101GH - Elementary Spanish I Credit(s): 5
- SPNS 102GH - Elementary Spanish II Credit(s): 5 \*



## fvcc Criteria for General Education Courses

### Writing

Writing courses focus on the writing process, rhetorical knowledge, conventions, critical thinking, reading, and research. Writing courses are foundational to success in college-level writing assignments. These courses will provide instruction and practice in the following:

- multiple, flexible strategies for the writing process;
- writing as a means to engage in critical inquiry;
- conventions of language and forms of discourse;
- research as a process;
- formulating and supporting assertions with appropriate evidence
- how to use appropriate documentation; and
- use of a variety of technologies to facilitate academic research.

### Communications

Communication courses will help students with the diverse applied writing and listening, speaking, and presenting opportunities they will encounter in their lives. These courses will provide instruction and practice in four or more of the following:

- speaking with clarity, accuracy, and fluency in a variety of contexts;
- use of the conventions of language and forms of discourse;
- research as a process;
- listening actively in a variety of situations;
- adapting content and mode of presentation to fit a given audience and medium;
- conventions for the discipline including format and media presentation; and
- practical writing skills in the workplace.

### Mathematics

Mathematics courses focus on comprehension of elementary quantitative concepts, development of quantitative reasoning skills, and the ability to reasonably ascertain the implications of quantitative information. These courses will provide instruction and practice in the following:

- methods employed in the mathematical sciences;
- application of mathematical or statistical models to complex problems;
- quantitatively-based problems of importance to contemporary society; and
- practical applications for consumers of quantitative information.

### Humanities

The humanities reveal what it means to be human. Humanities courses explore societies, cultures, ideas, and art as well as examine the forces that shape and connect them. These courses will provide instruction and practice in the following:

- critical analysis of how others perceive and express the human condition;
- the human search for meaning and value in one or more time period(s) and cultures;
- understanding how others make and express meaning in their lives;
- respectful inquiry to understand global concepts, values, and beliefs; and
- personal reflection and values identification.

### Social Sciences

Social Sciences courses explore people, movements, institutions, and forces which play a major role in human history and development. These courses will provide instruction and practice in two or more of the following:

#### Social Sciences A course criteria

- diversity of purpose, focus, and methodology among social sciences;
- the role and impact of major social institutions on the daily existence of individuals, and on social and cultural groups;
- analysis of human behavior, ideas, and social institutions for historical and cultural meaning and significance; and
- historical construction of differences and similarities among peoples within and across groups, regions, and nations.

#### Social Sciences B course criteria

- nature, structure, and historical development of human organization and the extent to which individuals (in contrast to physical or social forces) are able to influence events;
- historical, economic, and/or political analysis of interrelations among humans;
- analysis of interactions between humans and their environments, on local, national, and international scales;
- uses and limitations of historical, economic, and/or political comparison as an analytical tool; and
- distinctions between primary and secondary sources.

### Natural Science

Natural Science courses explore the principles that rule the physical universe by asking and answering questions about processes that can be observed and measured. These courses will provide instruction and/or practice in the following:

- the experimental basis of science and how scientists accumulate new knowledge;
- methods scientists use to gather, validate, and interpret data within the broad area of the specific discipline being studied;
- scientific facts and how those facts help us understand our observations and the laws that govern the natural world;
- goals and limitations of science; and
- the role of science in the development of modern technological civilization.

### Global Issues

Global Issues courses explore differences in race, ethnicity, gender, sexual orientation, class, disability status, language, national origin, and/or religion within and across peoples and nations. These courses will provide instruction and practice in the following:

- impact of historical events, geography, institutionalized differences in power, and long-standing customs on cultural diversity;
- discrimination within and across specific institutions and groups and the attitudes that create barriers for some and opportunities for others; and
- effect of cultural diversity on the ways in which individuals and peoples perceive, understand, and live in the world.

## 2015-2016

### Fine Arts

Fine Arts courses explore how people reveal and express feelings, emotions and beliefs, as well as how different cultures value the arts. Through the Fine Arts, students explore the creative process as they study and construct expressions of their own creativity, talent, and passion. These courses will provide instruction and practice in three or more the following:

- examination of aesthetic expressions from a historical/cultural perspective;
- personal responses to various aesthetic expressions;
- expressions of creativity and talent;
- influence of the arts on individuals and society; and
- the place of arts in cultural and intellectual history.

## Alternate Transfer Option (MUS Core)

**For students who cannot complete the AA or AS degree at FVCC:**

Students transferring to a Montana University System school have the option to complete the Montana University System Transferable Core (MUS Core) in lieu of the FVCC General Education Core. This option may be advantageous for students who transfer prior to completing an AA or AS degree.

### Montana University System Transferable Core (MUS Core)

See the MUS Core course lists at  
<http://mus.edu/Transfer/MUSCoreByCampus.asp>

✓	MUS Core	Minimum Credits	Courses Completed	Grade	Credits
	Communication: Written and Oral	6			
	Mathematics	3			
	Humanities/ Fine Arts	6			
	Social Sciences/ History	6			
	Natural Science (at least one laboratory class)	6			
	Cultural Diversity	3			
	<i>One course must include significant content related to the cultural heritage of American Indians (may be from above categories).</i>				
<b>Total Credits = 30 semester credits</b>					

## General Education Requirements

### Montana University System Board Policy:

#### I. Policy:

A. The Montana University System is committed to facilitating the ease of undergraduate student transfer to its campuses, particularly in the area of general education. Therefore, all campuses of the Montana University System will recognize the integrity of general education programs and courses offered by units of the Montana University System, Montana's three publicly supported community colleges, the seven tribal colleges and regionally accredited independent colleges in the State of Montana. All campuses in the Montana University System shall also recognize the integrity and transferability of the Montana University System Transferable Core. <http://mus.edu/borpol/default.asp>.

#### II. Procedures:

A. Campus General Education Programs: An undergraduate student who has completed the lower division coursework in an approved general education program at one of the institutions noted above, and who transfers to another of those institutions, cannot be required to take additional general education coursework at the lower division level. The student may be required to take additional coursework at the upper division level that is part of an approved general education program at the new campus. The approved general education program at each of the campuses can be found at this link:  
<http://mus.edu/transfer/genedbycampus.asp>.

## Rules for the Alternate Transfer Option

The Montana University System Transferable Core: An undergraduate student who has completed courses identified as part of the Montana University System Transferable Core, hereafter referred to as the MUS Core, will be governed by the following rules:

1. If the student has completed the entire 30 credit MUS Core, following the operating rules approved by the Montana Board of Regents, and transfers to another unit in the Montana University System, that student cannot be required to take additional general education courses at the lower division level.
2. If that student has completed fewer than 20 MUS Core credits, that student will be required to complete the approved general education program at the campus to which he/she transfers. All general education transfer credits that are part of the MUS Core will be reviewed for possible application in the approved general education program at the campus.
3. If that student has completed 20 or more MUS Core credits, that student may choose to complete either the MUS Core or the approved general education program at the campus to which he/she transfers. The student should make that decision in consultation with a faculty advisor.
4. The student may be required to take additional coursework at the upper division level that is part of an approved general education program at the new campus.

FVCC offers several types of programs that vary by subject area. Transfer programs prepare students to transfer to a four-year institution. The other programs vary in length and prepare students for employment.

Transfer Programs		Career and Technical Education Programs	
AA (Associate of Arts)	at least 60 credits	AAS (Associate of Applied Science)	64-72 credits
AS (Associate of Science)	at least 60 credits	CAS (Certificate of Applied Science)	30-45 credits
		CT (Certificate)	16-29 credits

3D Jewelry Design and Production, AAS.....	55	Heating, Ventilation and Air Condition, CAS .....	129
Accounting		Heavy Equipment Operator, CAS .....	130
Accounting Technology, AAS .....	56	History Transfer.....	131
Accounting Technology, CAS.....	57	Human Services, AAS.....	134
Accounting Transfer.....	58	Human Services Transfer.....	132
Agriculture Transfer.....	60	Industrial Machine Technology, AAS, CAS, CTs .....	135
Art Transfer.....	62	Industrial Maintenance, CAS, CTs.....	137
Biology Transfer.....	63	Information Technology, AAS.....	138
Biotechnology Transfer.....	65	Integrated Agriculture and Food Systems, AAS.....	139
Brewing Science and Brewery Operations, AAS .....	66	Liberal Studies Transfer .....	140
Building Trades, AAS, CAS (In Moratorium) .....	67	Machinist Technician, Tiers I, II, III, IV, CAS, AAS .....	135
Business Administration		Marketing/Sales Specialist, CAS .....	141
AAS.....	70	Mathematics Transfer .....	142
CAS.....	71	Medical Assistant, AAS .....	143
Transfer.....	68	Medical Coding, AAS .....	145
Business Innovation and Development, CT .....	72	Medical Transcription, CAS (in moratorium) .....	146
Chemistry Transfer .....	73	Music Transfer.....	147
Communication Studies Transfer .....	76	Natural Resources Conservation and Management, AAS .....	149
Computer Science Transfer .....	77	Nondestructive Testing, CAS .....	150
Criminal Justice		Paramedicine, AAS .....	151
AAS.....	81	Parks, Tourism, and Recreation Management Transfer .....	153
Transfer.....	79	Patient Relations Specialist, CT .....	154
Culinary Arts, AAS.....	82	Payroll Accounting, CAS.....	155
Dental Hygiene Transfer .....	84	Personal Trainer, CAS .....	156
Early Childhood Education, AAS .....	85	Pharmacy Technology, CT .....	157
Economics Transfer .....	86	Pharmacy Transfer .....	158
Education		Physical Therapist Assistant, AAS .....	159
Elementary Education Transfer.....	87	Physics Transfer.....	161
Secondary Education Transfer .....	92	Political Science Transfer.....	162
Electrical Technology, CAS, AAS.....	101	Practical Nursing, AAS .....	163
Electronics Technician, Tiers I, II, III, IV, CAS, AAS.....	102	Pre-Dental Transfer .....	165
Emergency Dispatcher, CT .....	103	Pre-Medicine Transfer.....	166
Emergency Management, AAS .....	104	Pre-Nursing Model Curriculum.....	168
Engineering Transfer.....	105	Pre-Nursing Transfer .....	169
English Transfer .....	108	Pre-Physical Therapy Transfer .....	171
Entrepreneurship, CAS.....	109	Pre-Veterinary Medicine Transfer .....	172
Environmental Biology Transfer .....	110	Psychology Transfer .....	173
Environmental Science Transfer .....	111	Radiologic Technology, AAS .....	175
Environmental Studies Transfer .....	112	Registered Nursing, ASN.....	177
Firearms Technology, CT.....	113	Resource Conservation Transfer .....	178
Forensic Science Transfer .....	114	Small Business Management, AAS .....	179
Forestry Transfer .....	115	Sociology Transfer .....	180
Geography Transfer.....	116	Substance Abuse Counseling, AA .....	182
Geology Transfer .....	118	Support Professional, AAS.....	183
Goldsmithing and Jewelry Arts, AAS.....	119	Surgical Technology, AAS .....	184
Graphic Design, AAS .....	120	Surveying, AAS.....	186
Graphic Design, CAS.....	121	Theatre Arts Transfer .....	187
Health and Human Performance Transfer.....	122	Web Technology, AAS .....	188
Health Care Informatics Transfer.....	125	Welding and Fabrication Technology, CTs, CAS, AAS .....	189
Health Care Office Management, AAS.....	126	Welding and Inspection Technology, AAS .....	190
Health Information Technology		Wildlife Biology Transfer .....	191
Implementation Specialist, CT (online) .....	127		
Health Occupations, CT .....	128		

*FVCC has developed the following curricula to assist students in planning a two-year course of study. These programs emphasize particular academic or occupational areas and are recommended to students planning careers and/or further college work in those areas. Where FVCC has a formal transfer agreement with another institution, the curriculum is designated "Transfer to \_\_\_\_\_." The selection of programs is not limited to those listed. Students seeking emphasis in other academic areas are invited to see a counselor or academic advisor to explore other options.*

Programs of study are suggested only and are kept current with the lower division requirements at the four-year institution. Sometimes the four-year school makes subsequent changes after this catalog is printed, so it is advisable to go over the curriculum in the catalog of the four-year school a year prior to transferring to ensure all transferable courses can be taken at FVCC as some may be offered once a year.

All programs can be modified to meet individual needs and to fulfill specific degree requirements. These modifications should be made with the assistance of the student's faculty advisor. Students planning to transfer to another institution should refer to the transfer procedure described in the Student Services section of the catalog.

For specific degree and core curriculum requirements, consult the "Academic Requirements" section.

The following pages have been developed in a worksheet style to assist students in meeting graduation requirements. General Education courses can be taken in either year unless they have a prerequisite. Mark off each course as it is completed. Indicate the name and number of courses selected as electives.

Accounting .....	58
Agriculture .....	60
Art .....	62
Biology .....	63
Biotechnology .....	65
Business Administration.....	68
Chemistry .....	73
Communication Studies .....	76
Computer Science .....	77
Criminal Justice .....	79
Dental Hygiene.....	84
Economics .....	86
Education	
Elementary Education .....	87
Secondary Education .....	92
Engineering .....	105
English Transfer.....	108
Environmental Biology .....	110
Environmental Science .....	111
Environmental Studies .....	112
Forensic Science .....	114
Forestry .....	115
Geography .....	116
Geology .....	118
Health and Human Performance .....	122
Health Care Informatics .....	125
History .....	131
Human Services.....	132
Liberal Studies .....	140
Mathematics .....	142
Music .....	147
Parks, Tourism, and Recreation Management .....	153
Physics .....	161
Political Science .....	162
Pre-Dental .....	165
Pre-Medicine .....	166
Pre-Nursing .....	169
Pre-Physical Therapy .....	171
Pre-Veterinary Medicine .....	172
Psychology .....	173
Resource Conservation .....	178
Sociology .....	180
Theatre Arts .....	187
Wildlife Biology .....	195

**Associate of Applied Science Degrees (AAS)**

Accounting Technology ..... 56  
 Brewing Science and Brewery Operations ..... 66  
 Building Trades (In Moratorium) ..... 67  
 Business Administration ..... 70  
 Criminal Justice ..... 81  
 Culinary Arts ..... 82  
 Early Childhood Education ..... 85  
 Electrical Technology ..... 101  
 Electronics Technician ..... 102  
 Emergency Management ..... 104  
 Goldsmithing and Jewelry Arts ..... 119  
 Graphic Design ..... 120  
 Health Care Office Management ..... 126  
 Human Services ..... 134  
 Industrial Machine Technology ..... 135  
 Information Technology ..... 138  
 Integrated Agriculture and Food Systems ..... 139  
 Medical Assistant ..... 143  
 Medical Coding ..... 145  
 Natural Resources Conservation and Management ..... 149  
 Paramedicine ..... 151  
 Physical Therapist Assistant ..... 159  
 Practical Nursing ..... 163  
 Radiologic Technology ..... 175  
 Small Business Management ..... 179  
 Support Professional ..... 183  
 Surgical Technology ..... 184  
 Web Technology ..... 188  
 Surveying ..... 186  
 Welding and Fabrication Technology ..... 189  
 Welding and Inspection Technology ..... 190

**Associate of Arts Degree (AA)**

Substance Abuse Counseling, AA ..... 182

**Associate of Applied Science Nursing Degree (ASN)**

Registered Nursing, ASN ..... 177

**Certificate of Applied Science Degrees (CAS)**

3D Jewelry Design and Production ..... 55  
 Accounting Technology ..... 57  
 Business Administration ..... 71  
 Electrical Technology ..... 101  
 Electronics Technician ..... 102  
 Entrepreneurship ..... 109  
 Graphic Design ..... 121  
 Heating, Ventilation and Air Conditioning ..... 129  
 Heavy Equipment Operator ..... 130  
 Industrial Machine Technology ..... 135  
 Marketing/Sales Specialist ..... 141  
 Medical Transcription (in moratorium) ..... 146  
 Nondestructive Testing ..... 150  
 Payroll Accounting ..... 155  
 Personal Trainer ..... 156  
 Welding and Fabrication Technology ..... 189

**Certificates (CT)**

Business Innovation and Development ..... 72  
 Electronics Technician, Tiers I, II, III, IV ..... 102  
 Emergency Dispatcher ..... 103  
 Firearms Technology ..... 113  
 Health Information Technology  
     Implementation Specialist (online) ..... 127  
 Health Occupations ..... 128  
 Industrial Maintenance Technician, Tiers I, II ..... 137  
 Machinist Technician, Tiers I, II, III, IV ..... 135  
 Patient Relations Specialist ..... 154  
 Pharmacy Technology ..... 157  
 Welding and Fabrication Technology, Tiers I, II, III, IV ..... 189

**Individual Courses for Certification or Licensure**

Certified Nurse's Aide Training Course (NRS 106) ..... 260  
 Commercial Driver's License Training Course (EQOP 100) ..... 236  
 Emergency Medical Technician Training Course (ECP 130) ..... 227

**Lincoln County Campus**

**Career and Technical Education Program Offerings**

**Associate of Applied Science Degrees (AAS)**

Business Administration ..... 70  
 Health Care Office Management ..... 126  
 Medical Coding ..... 145  
 Small Business Management ..... 179

**Certificate of Applied Science Degrees (CAS)**

Accounting Technology ..... 57  
 Business Administration ..... 71  
 Entrepreneurship ..... 109  
 Marketing/Sales Specialist ..... 141

**Certificates (CT)**

Patient Relations Specialist ..... 154



This program prepares the student for employment in the high-tech field of CAD/CAM jewelry design and production. The central focus of this program integrates a rich and creatively challenging emphasis in computer-aided design/computer-aided manufacturing with fabrication, casting and stone setting. Upon completion of this program, students will:

- Learn and effectively practice basic and advanced technical skills in CAD/CAM;
- Understand the principles of vector-based drawing and relief editing;
- Gain experience in the proper use and maintenance of CNC mills; and
- Develop a sense of professionalism necessary for working successfully in the jewelry industry.

#### Required Courses

- ARTJ 210F - Jewelry and Metalsmithing I Credit(s): 3
- ARTJ 231 - 3D Jewelry Design and Modeling I Credit(s): 4
- ARTJ 232 - 3D Jewelry Design and Modeling II Credit(s): 4 \*
- ARTJ 233 - 3D Jewelry Design and Modeling III Credit(s): 4 \*
- ARTJ 234 - 3D Jewelry Design and Modeling IV Credit(s): 4 \*
- ARTJ 240 - Jewelry Design and Rendering I Credit(s): 3 \*
- ARTJ 250 - Wax Modeling and Casting I Credit(s): 3
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- M 111 - Technical Mathematics Credit(s): 3 \*

**Total Credits: 31**

*\*Indicates prerequisite and/or corequisite needed. Check course description.*

#### Additional professional development program offering:

- ARTJ 260 - Stone Setting I Credit(s): 3 \*

#### Admission Guidelines

- Any of the Level I classes are open to general students. No prior knowledge of jewelry fabrication is required for Level I classes.

#### Program Information

- All courses within this certificate program must be taken for a letter grade. No courses may be taken on a Satisfactory/Unsatisfactory (S/U) basis.
- This Certificate of Applied Science program requires a minimum of four semesters to complete.

#### Opportunities after Graduation

- This certificate will prepare students for high-tech CAD/CAM CNC positions in the jewelry industry.

#### Advisor:

Douglas Harling  
AT 110  
(406) 756-3634  
dharling@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

# Accounting Technology, AAS

2015-2016

This program is designed to give the student a high level of proficiency as a technical accountant and leads to an Associate of Applied Science degree in Accounting Technology. A technical accountant will possess the skills necessary to perform all accounting functions within the business organization except those of a very advanced nature. The student receives a well-rounded business education and should be able to perform organizational and supervisory duties within the office. Upon completion of this program, students will:

- Understand different types of business organizations;
- Understand the internal control structure of a business organization;
- Analyze and record financial transactions in a manual and computerized general ledger;
- Prepare financial statements according to generally accepted accounting standards;
- Analyze and prepare financial information for management decision making;
- Prepare personal income tax returns;
- Process payroll transactions in accordance with current payroll reporting requirements;
- Develop and apply flexible solutions to accounting problems with the use of spreadsheets;
- Complete tasks for the accounting cycle using general ledger accounting software; and
- Communicate financial information effectively within a business environment.

## Required Courses

### First Year - Fall Semester

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMGT 215 - Human Resource Management Credit(s): 3
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3

**First Semester Total: 17**

### Spring Semester

- ACTG 180 - Payroll Accounting Credit(s): 2 \*
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BGEN 235 - Business Law Credit(s): 4
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4 \*
- ECNS 201B - Principles of Microeconomics Credit(s): 3

**Second Semester Total: 17**

### Second Year - Fall Semester

- ACTG 205 - Computerized Accounting Credit(s): 2 \*
- ACTG 211 - Income Tax Fundamentals Credit(s): 4 \*
- ACTG 231 - Applied Accounting Credit(s): 2 \*
- ACTG 241 - Intermediate Financial Accounting I Credit(s): 4 \*
- BMIS 270 - MIS Foundations for Business Credit(s): 3 \*

**First Semester Total: 15**

### Spring Semester

- ACTG 207 - Advanced Accounting on Microcomputers Credit(s): 2 \*
- ACTG 210 - Cost and Advanced Accounting Credit(s): 4 \*
- ACTG 298 - Internship Credit(s): 3 \*
- BFIN 260 - Principles of Finance Credit(s): 4 \*
- Elective(s) - ACTG, BFIN, CAPP Credit(s): 4

**Second Semester Total: 17**

**Total Credits: 66**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Program Information

**All Required Courses within this degree program must be taken for a letter grade. Only electives may be taken on a Satisfactory/Unsatisfactory (S/U) basis.**

- An internship is required for this program. Students must apply for internship placements for this program the prior semester. See Internships for more information and application deadlines.
- Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, please contact the AmeriCorps office at (406) 756-3908.
- If you are considering transfer to a four-year college, some of the courses will transfer as electives only. See your advisor. If you are going to graduate in the current academic year, you must see an advisor in the Business Division prior to enrolling fall semester.

## Opportunities after Graduation

- Graduates work as bookkeepers, accounts payable/receivable clerks, staff accountants and office managers. The majority of new jobs will be created in small, rapidly growing organizations. Many opportunities for temporary and part-time work should be available. Experienced bookkeeping and accounting clerks may move into management positions.

## Advisor:

Ronnie Laudati  
BSS 127  
(406) 756-3990  
rlaudati@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

## 2015-2016

*(Also offered at Lincoln County Campus)*

The following curriculum develops the competencies needed for success as an entry-level bookkeeper and may serve as the basis for further courses leading toward a full-charge bookkeeper. Upon completion of this program, students will:

- Understand different types of business organizations;
- Understand the internal control structure of a business organization;
- Prepare financial statements according to generally accepted accounting standards;
- Complete tasks for the accounting cycle using general ledger accounting software;
- Communicate financial information effectively within a business environment; and
- Record financial transactions in a manual and computerized general ledger.

### Required Courses

#### Fall Semester

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 205 - Computerized Accounting Credit(s): 2 \*
- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*
- BMGT 215 - Human Resource Management Credit(s): 3
- CAPP 156 - MS Excel Credit(s): 3 \*

**First Semester Total: 16**

#### Spring Semester

- ACTG 122 - Accounting and Business Decisions Credit(s): 2
- ACTG 150 - Accounting on Microcomputers Credit(s): 3 \*
- ACTG 180 - Payroll Accounting Credit(s): 2 \*
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- CAPP 103 - QuickBooks Fundamentals Credit(s): 2
- CAPP 118 - Short Courses: MS Access Credit(s): 1 \*

**Second Semester Total: 17**

**Total Credits: 33**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- All courses within the certificate must be taken for a letter grade. No courses may be taken on a Satisfactory/Unsatisfactory (S/U) basis.
- Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, contact the AmeriCorps office at (406) 756-3908.
- If you are considering transfer to a four-year college, some of the courses will transfer as electives only. See your advisor. If you are going to graduate in the current academic year, you must see an advisor in the Business Division prior to enrolling fall semester.

## Accounting Technology, CAS

### Opportunities after Graduation

- This certificate will prepare students for entry-level positions in bookkeeping, accounts payables or receivables, or as billing clerks or office assistants. Opportunities for advancement will grow with increased skills and experience.

### Advisors:

Kalispell  
Ronnie Laudati  
BSS 127  
(406) 756-3990  
rlaudati@fvcc.edu

Libby  
Chad Shilling  
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(406) 756-3847.

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# Accounting Transfer

2015-2016

The study of accounting leads to career opportunities in accounting and finance. This program provides the first two years of study leading to a bachelor's degree in accounting.

## Associate of Science Degree

### Suggested course of study for transfer to Montana State University - Billings:

(The BS in Accounting at MSU-Billings can be completed online.)

#### First Year

- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4 \*
- OR**
- CAPP 131 - Basic MS Office Credit(s): 2 \*
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 4
- Social Sciences (A) Requirement Credit(s): 3
- Electives Credit(s): 4-6 <sup>1</sup>

**First Year Total: 30**

#### Second Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BGEN 235 - Business Law Credit(s): 4
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Elective Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- OR**
- Natural Science (NL or N) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3

**Second Year Total: 31**

**Total Credits: 61**

<sup>1</sup>Depends on whether student took BMIS 211\* or CAPP 131\*.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

## Associate of Science Degree

### Suggested course of study for transfer to Montana State University - Bozeman:

#### First Year

- BGEN 204 - Business Fundamentals Credit(s): 3
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4 \*
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- M 162M - Applied Calculus Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3-4
- Social Sciences (A) Requirement Credit(s): 3

**First Year Total: 30-31**

#### Second Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- ACTG 223 - Principles of Financial Accounting II Credit(s): 2 \*
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Electives Credit(s): 6
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- OR**
- Natural Science (NL or N) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3

**Second Year Total: 32**

**Total Credits: 62-63**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## 2015-2016

## Accounting Transfer

### Associate of Science Degree

#### Suggested course of study for transfer to The University of Montana - Missoula:

##### First Year

- BMIS 211 - Introduction to Business Decision Support  
Credit(s): 4 \*
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**First Year Total: 28**

##### Second Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BGEN 235 - Business Law Credit(s): 4
- BMIS 270 - MIS Foundations for Business Credit(s): 3 \*
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Mathematics (M) Requirement Credit(s): 3  
**OR**
- Natural Science (NL or N) Requirement Credit(s): 3
  
- Natural Science (NL or N) Requirement Credit(s): 4

**Second Year Total: 32**

**Total Credits: 60**

\*Indicates prerequisite and/or corequisite needed. Check course description.

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

##### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.



# Agriculture Transfer

2015-2016

The Agriculture transfer program at FVCC offers a range of freshman and sophomore level classes to prepare students transferring to one of three Bachelor of Science programs offered within the College of Agriculture at **Montana State University - Bozeman**.

The Bachelor of Science in Agricultural Business prepares students for careers that apply business and economic principles to farming and ranching. Currently, **Montana State University - Bozeman** offers two different concentrations within this degree program, Agribusiness Management and Farm and Ranch Management. The recommended course of study specified below is suggested for both concentrations.

## Associate of Science Degree

### Suggested course of study for transfer to Montana State University - Bozeman in Agricultural Business:

#### First Year

- ANSC 100 - Introduction to Animal Science Credit(s): 3
  - BIOB 110N - Plant Science Credit(s): 3
  - CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
  - COMX 111C - Introduction to Public Speaking Credit(s): 3
  - ECNS 101GB - Economic Way of Thinking Credit(s): 3
  - ECNS 202GB - Principles of Macroeconomics Credit(s): 3
  - M 115M - Probability and Linear Mathematics Credit(s): 3 \*
  
  - M 162M - Applied Calculus Credit(s): 5 \*
- OR**
- M 171M - Calculus I Credit(s): 5 \*

- WRIT 101W - College Writing I Credit(s): 3 \*

**First Year Total: 30**

#### Second Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
  - ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
  - ENSC 245NL - Soils Credit(s): 4
  - STAT 216M - Introduction to Statistics Credit(s): 4 \*
  - WRIT 201W - College Writing II Credit(s): 3 \*
  - Electives Credit(s): 3
  - Humanities (H) Requirement Credit(s): 3
  
  - Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 31**

**Total Credits: 61**

\*Indicates prerequisite and/or corequisite needed. Check course description.

The Bachelor of Science in Plant Science prepares students for careers in agriculture, biotechnology, and recreational land management. **Montana State University - Bozeman** offers two options within this degree program, Crop Science and Plant Biology. The course of study specified below is suggested for the Crop Science option only.

## Associate of Science Degree

### Suggested course of study for a transfer to Montana State University - Bozeman in Plant Science (Crop Science option):

#### First Year

- BIOB 110N - Plant Science Credit(s): 3
- BIOB 160NL - Principles of Living Systems Credit(s): 4
  
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*  
**and**
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
  
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**First Year Total: 32**

#### Second Year

- BIOB 275N - General Genetics Credit(s): 4 \*
  - BIOO 262NL - Introduction to Entomology Credit(s): 3 \*
  - ECNS 101GB - Economic Way of Thinking Credit(s): 3
  - ENSC 245NL - Soils Credit(s): 4
  - STAT 216M - Introduction to Statistics Credit(s): 4 \*
  - WRIT 201W - College Writing II Credit(s): 3
  - Communications (C) Requirement Credit(s): 3
  - Global Issues (G) Requirement Credit(s): 3
  
  - Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 30**

### Suggested Course Offering:

- AGSC 241 - Field Crop Production Credit(s): 3 \*

**Total Credits: 62**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## 2015-2016

The Bachelor of Science in Sustainable Food and Bioenergy Systems is an interdisciplinary program designed for students interested in the processes of crop production, processing, distribution, and utilization of food and bioenergy. **Montana State University - Bozeman** offers four program options within this degree program: Sustainable Food Systems, Agroecology, Sustainable Crop Production, and Sustainable Livestock Production. Students completing this degree program are prepared for careers in an array of related disciplines, including agriculture business, public health and community food security, food and bioenergy production, marketing, distribution and local food systems. The course of study specified below is suggested for all four options, with footnotes recommending coursework specific to each option.

As programs change and evolve, it is important to consult with an advisor to keep abreast of changes and to register for classes in the proper order.

### Associate of Science Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman in Sustainable Food and Bioenergy Systems

(Sustainable Food Systems, Agroecology, Sustainable Crop Production, or Sustainable Livestock Production option):

#### First Year

- BIOB 110N - Plant Science Credit(s): 3
- BIOB 160NL - Principles of Living Systems Credit(s): 4 <sup>1</sup>
  
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \* <sup>2</sup>  
**and**
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
  
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*<sup>3</sup>
- OR**
- CHMY 141NL - College Chemistry I Credit(s): 5 \* <sup>4</sup>
  
- ENSC 105NL - Environmental Science Credit(s): 4
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- SFBS 146 - Introduction to Sustainable Food and Bioenergy Systems Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives Credit(s): 3-5 <sup>5</sup>

**First Year Total: 32-35**

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer

## Agriculture Transfer

### Second Year

- ANSC 222 - Livestock in Sustainable Systems Credit(s): 3 \* <sup>6</sup>
- ECNS 101GB - Economic Way of Thinking Credit(s): 3
- ENSC 245NL - Soils Credit(s): 4
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
  
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Communications (C) Requirement Credit(s): 3 <sup>7</sup>
- Humanities (H) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (A) Requirement Credit(s): 3 <sup>8</sup>
- Electives Credit(s): 0-4 <sup>9</sup>

**Second Year Total: 32-36**

**Total Credits: 64-71**

<sup>1</sup> Not required for Sustainable Livestock Production option; take AGSC 241 instead.

<sup>2</sup> Students pursuing the Sustainable Livestock Production option should take ANSC 100 and NRSM 101 instead. Students pursuing the Sustainable Food Systems options should take ACTG 201 instead.

<sup>3</sup> Not required for Agroecology option; take CHMY 141NL\* instead.

<sup>4</sup> Not required for Sustainable Livestock Production option; take CHMY 121NL\* instead.

<sup>5</sup> Students choosing to pursue the Agroecology option should take CHMY 143NL\*.

<sup>6</sup> Students pursuing the Agroecology option are not required to take ANSC 222\*.

<sup>7</sup> Students pursuing the Sustainable Livestock Production option should take COMX 111C.

<sup>8</sup> Students pursuing Sustainable Food Systems options should take SOCI 101A.

<sup>9</sup> Students pursuing the Agroecology or Sustainable Livestock Production option should take CHMY 123NL\*.

\*Indicates prerequisite and/or corequisite needed. Check course description

### Suggested Course Offering:

AGSC 241 - Field Crop Production Credit(s): 3\*

### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

The School of Fine Arts at **The University of Montana - Missoula** and the School of Art at **Montana State University - Bozeman** provide students with intensive professional training for students interested in careers in the field of art. Admission into the Bachelor of Fine Arts program is competitive at both schools and successful completion of lower division art classes is only a first step. Students will need to submit an extensive portfolio and adhere to specific application deadlines. **The University of Montana - Missoula** offers a BA and BFA in Sculpture, Ceramics, Printmaking, Photography, Painting and Drawing and a degree in Art Education K-12. **Montana State University - Bozeman** offers a BFA in Studio Arts and Graphic Design and a BA in Art History, Art Education K-12, Liberal Arts Studio and a Photography option in the Film and Photography department.

## Associate of Arts Degree

### Suggested course of study for a transfer to Montana State University - Bozeman in Fine Arts:

#### First Year

- ARTH 200FGH - Art of World Civilization I Credit(s): 3
- ARTZ 105F - Visual Language-Drawing Credit(s): 3
- ARTZ 106F - Visual Language-2-D Foundations Credit(s): 3
- ARTZ 231F - Ceramics I Credit(s): 3 <sup>1,2</sup>
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- PHOT 113F - Understanding Photography Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
  
- Communications (C) Requirement Credit(s): 3
- OR**
- Humanities (H) Requirement Credit(s): 3
- OR**
- Social Sciences (A or B) Requirement Credit(s): 3
  
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 30**

#### Second Year

- ARTH 201FGH - Art of World Civilization II Credit(s): 3
- ARTJ 210F - Jewelry and Metalsmithing I Credit(s): 3 <sup>1,2</sup>
- ARTJ 211F - Jewelry and Metalsmithing II Credit(s): 3 \* <sup>1,2</sup>
- ARTZ 108F - Visual Language-3-D Foundations Credit(s): 3 \*
- ARTZ 211 - Drawing I Credit(s): 3 \* <sup>1,2</sup>
- ARTZ 221F - Painting I Credit(s): 3 <sup>1,2</sup>
- ARTZ 271 - Printmaking I Credit(s): 3 \* <sup>1,2</sup>
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 60**

<sup>1</sup> Students who wish to pursue the Photography option should take the following courses instead:

- PHOT 213F - Intermediate Photography Credit(s): 3 \*
- PHOT 255F - Introduction to Color Photography Credit(s): 3\*

<sup>2</sup> Graphic Design students only need one of the 200-level studio arts classes and can take other electives. However, ARTZ 210 and ARTZ 211\* both need to be completed to satisfy MSU's Metals course.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Associate of Arts Degree

### Suggested course of study for a transfer to The University of Montana - Missoula in Fine Arts:

#### First Year

- ARTH 200FGH - Art of World Civilization I Credit(s): 3
- ARTZ 105F - Visual Language-Drawing Credit(s): 3
- ARTZ 106F - Visual Language-2-D Foundations Credit(s): 3
- ARTZ 231F - Ceramics I Credit(s): 3
- PHOT 113F - Understanding Photography Credit(s): 3
- PHOT 116F - Intermediate Black and White Photography Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 30**

#### Second Year

- ARTH 201FGH - Art of World Civilization II Credit(s): 3
- ARTZ 108F - Visual Language-3-D Foundations Credit(s): 3 \*
- ARTZ 211 - Drawing I Credit(s): 3 \*
- ARTZ 221F - Painting I Credit(s): 3
- ARTZ 222 - Painting Studio: Composition Credit(s): 3 \*
- ARTZ 271 - Printmaking I Credit(s): 3 \*
  
- Communications (C) Requirement Credit(s): 3
- OR**
- Humanities (H) Requirement Credit(s): 3
- OR**
- Social Sciences (A or B) Requirement Credit(s): 3
  
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 60 \*\***

\* Indicates prerequisite and/or corequisite needed. Check course description.

\*\* As time and interest allows students can take studio level art classes which are the next step up from entry-level art classes (i.e. Painting I, Ceramics I, etc). Although these credits do not transfer directly as level II classes at the university, these advanced classes are designed for the development of more specific skills, and allows the student to develop a portfolio which can be used to petition for credit at the university level.

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For general information, contact the Admissions Office:  
 (406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

## 2015-2016

Biologists are employed in a wide variety of fields including: research, teaching, industry, governmental agencies, consulting firms in environmental work, health, and wildlife. Some positions are open to holders of the bachelor's degree, but most opportunities exist at the master's and doctoral levels of preparation. Most biologists need a broad background in the natural sciences, mathematics, and communication skills.

Students may prepare themselves for transfer for nearly any biology-related bachelor's degree, and they should be aware of the options in Montana. The biology department at **The University of Montana - Missoula** offers the following options: Biology Education (see Transfer Programs of Study section in this catalog), Cellular and Molecular Biology, Ecology and Organismal Biology, Field Ecology, Ecology for Teacher Preparation in General Science (see Transfer Programs of Study in this catalog), Human Biological Sciences, and Natural History. The Ecology and Organismal Biology and the Human Biological Sciences curriculums each have options of one or two years of Chemistry.

The biology department at **Montana State University - Bozeman** offers: Ecology and Evolution, Biomedical Sciences, Biology Teaching (see Transfer Programs of Study in this catalog), and Fish and Wildlife Management (See Wildlife Biology section in this catalog.) The intent of this program is to generally prepare students for biology-related programs for Montana universities, including **The University of Montana - Missoula, Montana Tech of The University of Montana and Montana State University - Bozeman**, and most other four-year institutions.

Students should choose from among the recommended courses with the close assistance of their advisor. Those with inadequate preparation to begin these courses can expect more than two years to ready themselves for transfer to the junior level. Close attention should be paid to specific program requirements at your desired four-year college or university.

### Associate of Science Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
  
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*  
**and**
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- OR**
- CHMY 141NL - College Chemistry I Credit(s): 5 \*<sup>1</sup> **and**
- CHMY 143NL - College Chemistry II Credit(s): 5 \*<sup>1</sup>
  
- M 162M - Applied Calculus Credit(s): 5 \*
- OR**
- M 171M - Calculus I Credit(s): 5 \*<sup>2</sup>
  
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Science (A) Requirement Credit(s): 3
- Social Science (B) Requirement Credit(s): 3

##### First Year Total: 34-36

For general information, contact the Admissions Office:  
(406) 756-384

## Biology Transfer

### Second Year

- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*
- BIOB 275N - General Genetics Credit(s): 4 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
  
- COMX 111C - Introduction to Public Speaking Credit(s): 3  
**OR**
- WRIT 121C - Introduction to Technical Writing Credit(s): 3 \*<sup>4</sup>
  
- Elective Credit(s): 3-5<sup>5,6</sup>
- OR**
- M 172M - Calculus II Credit(s): 5 \*<sup>2</sup>
  
- PHSX 205NL - College Physics I Credit(s): 5 \*<sup>3</sup> **and**
- PHSX 207NL - College Physics II Credit(s): 5 \*<sup>3</sup>
- OR**
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \* **and**
- PHSX 222NL - Physics II (with Calculus) Credit(s): 5 \*
  
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3

### Second Year Total: 35-37

### Total Credits: 69-73 \*\*

<sup>1</sup> If pursuing the Ecology option, students may select either chemistry sequence. If pursuing the Organismal Biology or Biomedical Science or Cell Biology and Neuroscience option, students should take CHMY 141NL\* and CHMY 143NL\*.

<sup>2</sup> If pursuing the Cell Biology and Neuroscience option, students should take M 171M\* and M 172M\*.

<sup>3</sup> If pursuing the Ecology option, students may select either physics sequence. If pursuing the Organismal Biology, Biomedical Sciences, or Cell Biology and Neuroscience option, students should take PHSX 205NL\* and PHSX 207NL\*.

<sup>4</sup> For the Biomedical Sciences option take WRIT 121C\*.

<sup>5</sup> If time permits, students may consider taking the following courses if pursuing the Biomedical Sciences option:

- BCH 280N - Biochemistry Credit(s): 3 \*
- BCH 281L - Biochemistry Lab Credit(s): 2 \*
- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*

<sup>6</sup>For the Ecology and Evolution option additional requirements that could be completed if time and course load allow:

- BCH 280N - Biochemistry Credit(s): 3 \*
- BCH 281L - Biochemistry Lab Credit(s): 2 \*
- WRIT 201W - College Writing II Credit(s): 3 \*

\*\*If time permits, students may consider taking the following courses if pursuing the Cell Biology and Neuroscience option:

- BCH 280N - Biochemistry Credit(s): 3 \*
- BCH 281L - Biochemistry Lab Credit(s): 2 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*

\* Indicates prerequisite and/or corequisite needed. Check course description.

### Advisor:

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# Biology Transfer

2015-2016

## Associate of Science Degree

### Suggested course of study for a transfer to Montana Tech of The University of Montana:

#### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOE 172N - Introductory Ecology Credit(s): 3 \*
- BIOE 173L - Introductory Ecology Laboratory Credit(s): 1 \*
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- M 171M - Calculus I Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 34**

#### Second Year

- CAPP 156 - MS Excel Credit(s): 3 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- PHSX 205NL - College Physics I Credit(s): 5 \*
- PHSX 207NL - College Physics II Credit(s): 5 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Global Issues (G) Requirement Credit(s): 3

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

- Social Sciences (A) Requirement Credit(s): 3

- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 32**

**Total Credits: 66 \*\***

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*If time permits students may consider taking the following courses:

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- BIOM 260N - General Microbiology Credit(s): 3 \*
- BIOO 235NL - Rocky Mountain Flora Credit(s): 3
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*

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For general information, contact the Admissions Office:  
(406) 756-3847.

## Associate of Science Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*

- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*<sup>1</sup> **and**

- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*<sup>1</sup>

**OR**

- CHMY 141NL - College Chemistry I Credit(s): 5 \*<sup>2</sup> **and**

- CHMY 143NL - College Chemistry II Credit(s): 5 \*<sup>2</sup>

- GEO 101NL - Introduction to Physical Geology Credit(s): 4

- M 162M - Applied Calculus Credit(s): 5 \*<sup>3</sup>

- PSYX 100A - Introduction to Psychology Credit(s): 4 \*<sup>4</sup>

**OR**

- Social Science (A) Requirement Credit(s): 3-4

- WRIT 101W - College Writing I Credit(s): 3 \*

- Humanities (H) Requirement Credit(s): 3

- Social Sciences (B) Requirement Credit(s): 3

**First Year Total: 38-41**

#### Second Year

- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*

- BIOB 272N - Genetics and Evolution Credit(s): 4 \*

- BIOO 235NL - Rocky Mountain Flora Credit(s): 3 \*<sup>1</sup>

- PHSX 205NL - College Physics I Credit(s): 5 \*<sup>3</sup>

- PHSX 207NL - College Physics II Credit(s): 5 \*<sup>5</sup>

- STAT 216M - Introduction to Statistics Credit(s): 4 \*<sup>6</sup>

- Communications (C) Requirement Credit(s): 3

- Global Issues (G) Requirement Credit(s): 3

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 35**

**Total Credits: 73-76\*\***

<sup>1</sup> If pursuing the Natural History option only.

<sup>2</sup> If pursuing the Microbiology, Human Biological Sciences, Field Ecology or the Ecology and Organismal Biology option students should take either CHMY 121NL\* and CHMY 123NL\* or CHMY 141NL\* and CHMY 143NL\*, CHMY 221NL\* and CHMY 223NL\*. If pursuing the Cellular or Molecular Biology or Microbiology option, take CHMY 141NL\* and CHMY 143NL\*, CHMY 221NL\* and CHMY 223NL\*.

<sup>3</sup> If pursuing the Natural History option, student should take M 152M\* instead of M 162M\* and take GEO 101NL instead of Physics.

<sup>4</sup> Required for Human Biological Sciences option as the SSA requirement.

<sup>5</sup> If doing the Physics sequence rather than the GEO 101NL course choice.

<sup>6</sup> STAT 216M\* is not required for the Cellular and Molecular or Natural History options.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\* If time permits, students pursuing the Human Biological Sciences option may consider taking the following courses:

- BCH 280N - Biochemistry Credit(s): 3 \*

- BCH 281L - Biochemistry Lab Credit(s): 2 \*

- BIOB 275N - General Genetics Credit(s): 4



Biotechnology is a rapidly expanding field of academic research and industry. Biotechnology industries are developing new approaches to treating diseases, finding new pharmaceutical agents, developing renewable energy sources, and improving food production. Students who are interested in entering this field will find many challenging career opportunities and the potential to develop new products aimed at solving some of society's urgent problems. To prepare for careers in Biotechnology students need to have a foundation in biology, microbiology, chemistry, and mathematics.

### Associate of Science Degree

#### Suggested course of study for transfer to Montana State University - Bozeman

##### First Year

- BIOB 105NL - Introduction to Biotechnology Credit(s): 3
- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- M 162M - Applied Calculus Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3-4

**First Year Total: 36-37**

##### Second Year

- BIOB 205 - Methods in Biotechnology Credit(s): 3 \*
- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*
- BIOM 260N - General Microbiology Credit(s): 3 \*
- BIOM 261L - General Microbiology Lab Credit(s): 2 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- ECNS 101GB - Economic Way of Thinking Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 35**

**Total Credits: 71-72**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

The Brewing Science and Brewery Operations program prepares individuals for careers in the brewing industry through coursework and hands-on training in brewing science, technology, and brewery operations. While enrolled in the program, students will complete coursework in microbiology, chemistry, brewing science, agronomy, facilities and operations, and a variety of business applications. Upon completion of this program, students will be able to:

- Demonstrate the fundamental techniques of brewing beer;
- Demonstrate knowledge of the microbiology and biochemistry concepts of fermentation pertaining to the brewing of beer;
- Discuss the production, selection, and analysis of brewing materials including malt and hops;
- Evaluate quality of beer, and identify beer style and characteristics;
- Identify, select, and safely utilize technology in brewery operations, packaging, and handling;
- Demonstrate an understanding of the practical aspects of the brewing process; and
- Describe and apply business principles related to brewing, including compliance and licensing.

## Required Courses

### First Year - Fall Semester

- BIOM 108 - Introduction to Food and Beverage Fermentation Credit(s): 3
- BREW 101 - Brewing Methods I Credit(s): 4 \*
- BREW 121 - Brewing Safety and Sanitation Credit(s): 2 \*
- BREW 131 - Beer Styles and Sensory Evaluation Credit(s): 3 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- ECP 104 - Workplace Safety Credit(s): 1

**First Semester Total: 17**

### Spring Semester

- BIOM 208 - Applied Brewing Microbiology Credit(s): 3
- BREW 102 - Brewing Methods II Credit(s): 4 \*
- BREW 151 - Finishing Processes Credit(s): 3 \*
- BREW 152 - Beer Packaging Credit(s): 2 \*
- CHMY 170 - Applied Brewing Chemistry Credit(s): 4 \*

**Second Semester Total: 16**

### Second Year - Fall Semester

- AGSC 105 - Malting and Barley Production Credit(s): 2
- AGSC 106 - Hop Selection and Production Credit(s): 2
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BREW 201 - Brewing Methods III Credit(s): 4 \*
- BREW 221 - Brewery Equipment and Maintenance Credit(s): 3 \*
- BREW 222 - Environmental Sustainability in Brewing Credit(s): 2 \*

**First Semester Total: 16**

### Spring Semester

- ACTG 122 - Accounting and Business Decisions Credit(s): 2
- BREW 141 - The Business of Brewing Credit(s): 2 \*
- BREW 202 - Brewing Methods IV Credit(s): 4 \*
- BREW 298 - Internship: Professional Brewing Credit(s): 4 \*
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- HVC 120 - Boiler Operator Certification Credit(s): 2

**Second Semester Total: 17**

**Total Credits: 66**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- An internship is required for this program. Students must apply for internship placements for this program the prior semester.

### Admission Guidelines

- Due to limited classroom and lab availability, the AAS in Brewing Science and Brewery Operations requires an admissions process.
- Students must be 21 years of age at the start of the program.
- See Brewing Science and Brewery Operations Admissions Packet for detailed information.

### Additional Costs

- There are lab fees associated with some of the classes in this program. They are listed in the semester schedule.

### Opportunities after Graduation

- This degree prepares students for entry-level brewing industry positions. Graduates may work as assistant brewers, laboratory technicians, quality assurance technicians, and equipment operators. Combined with practical brewing experience, an associate's degree in brewing is preferred by today's brewing employers.

### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

**This program is currently in moratorium. No new students will be admitted into this program until further notice.**

This is a program of study oriented toward preparing a student for entry-level positions within the Building Trades field. The program encompasses all trades involved with the construction of a single-family residence including layout, framing, electrical, plumbing, roofing and finish. The program is offered as a one-year Certificate of Applied Science or two-year Associate of Applied Science (AAS) degree program. Graduates of the Building Trades program will be able to:

- Solve construction problems using accepted principles, tools and skills;
- Apply techniques and principles appropriate to building science;
- Investigate basic construction business operational strategies;
- Model professional and ethical behavior;
- Demonstrate appropriate interpersonal relationship skills;
- Analyze the environmental impacts of building practices; and
- Apply safety practices and procedures in the work area.

#### First Year - Fall Semester

- CSTN 130 - Introduction to Building Trades I  
Credit(s): 3 ++
- CSTN 131 - Building Trades Field Experience I  
Credit(s): 10 \* ++
- ECP 104 - Workplace Safety Credit(s): 1
- M 111 - Technical Mathematics Credit(s): 3 \* ++

**First Semester Total: 17**

#### Spring Semester

- BMGT 205C - Professional Business Communication  
Credit(s): 3 \*
- CAPP 106 - Short Courses: Computer Applications  
Credit(s): 1 \* ++
- CSTN 140 - Introduction to Building Trades II  
Credit(s): 3 \* ++
- CSTN 141 - Building Trades Field Experience II  
Credit(s): 10 \* ++

**Second Semester Total: 17**

#### Second Year - Fall Semester

- BMGT 237 - Human Relations in Business Credit(s): 3
- COMX 111C - Introduction to Public Speaking  
Credit(s): 3

#### OR

- COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3
- CSTN 271 - Construction Project Management  
Credit(s): 6 \* ++
- DDSN 114 - Introduction to CAD Credit(s): 3 \*

**First Semester Total: 15**

#### Spring Semester

- BMGT 235 - Management Credit(s): 3
- CSTN 281 - Construction Project Management II Credit(s): 6 \*
- WLDG 111 - Welding Theory I Practical Credit(s): 4 \* ++
- CAPP Elective Credit(s): 1
- Elective(s) Credit(s): 2

**Second Semester Total: 16**

**Total Credits: 65**

++Required Courses for a one-year Certificate of Applied Science.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Program Information

- Building Trades (CSTN) classes meet four hours per day, five days per week.
- The Certificate of Applied Science will be completed at the end of the first year.
- Students in the Building Trades program must earn a "C-" or better in all Building Trades (CSTN) classes.
- Students will earn the American Red Cross First Aid/CPR Certification.

#### Opportunities after Graduation

- Graduates with certificates may start as construction helpers or as electrician or plumbing apprentices. Further education and experience will offer many opportunities for advancement.

#### Advisor:

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*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

# Business Administration Transfer

2015-2016

The study of business administration leads to career opportunities in accounting, economics, information systems, finance, human resources management, marketing, production management, and other business-related fields of study. This program provides the first two years of study leading to a bachelor's degree in these fields.

Completion of the following courses results in an associate degree. The associate degree meets the lower division general core requirements at **The University of Montana - Missoula, Montana State University - Billings, Montana State University - Bozeman, Montana State University - Northern**, the University of Great Falls, and most other four-year institutions. The suggested coursework normally fulfills the first half of baccalaureate degree requirements in Business Administration. Course selection should be tailored to match requirements defined by intended transfer institutions.

## Associate of Science Degree

### Suggested course of study for a transfer to Montana State University - Billings:

The General Business or Accounting Bachelor's Degree at MSU - Billings can be earned online.

#### First Year

- CAPP 131 - Basic MS Office Credit(s): 2 \*
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 4
- Electives Credit(s): 5

**First Year Total: 30**

#### Second Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BGEN 235 - Business Law Credit(s): 4
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- OR**
- Natural Science (NL or N) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3
- Electives Credit(s): 3

**Second Year Total: 30**

**Total Credits: 60**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Associate of Science Degree

### Suggested course of study for a transfer to Montana State University - Bozeman:

#### First Year

- BGEN 204 - Business Fundamentals Credit(s): 3
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4 \*
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- M 162M - Applied Calculus Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Non-physics Requirement Credit(s): 3
- Social Science (A) Requirement Credit(s): 3

**First Year Total: 33**

#### Second Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \* <sup>1</sup>
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Electives Credit(s): 3 <sup>2</sup>
- Electives Credit(s): 3 <sup>2</sup>
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- OR**
- Natural Science (NL or N) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 63**

<sup>1</sup> Not needed for the finance option.

<sup>2</sup> Suggested business electives that will not transfer for a specific class but will prepare the student for upper division classes include:

- BFIN 260 - Principles of Finance Credit(s): 4 \*
- BMGT 215 - Human Resource Management Credit(s): 3
- BMGT 235 - Management Credit(s): 3
- BMKT 225 - Marketing Credit(s): 3

\* Indicates prerequisite and/or corequisite needed. Check course description.

## 2015-2016

### Associate of Arts/Associate of Science Degree

#### Suggested course of study for a transfer to Montana State University - Northern:

The General Business Bachelor's degree at MSU - Northern can be earned online.

#### First Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BGEN 110 - Applied Business Leadership Credit(s): 3
- BMGT 215 - Human Resource Management Credit(s): 3
  
- COMX 111C - Introduction to Public Speaking Credit(s): 3  
**OR**
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
  
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3-4
- Social Sciences (A) Requirement Credit(s): 3-4

**First Year Total: 31-33**

#### Second Year

- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BGEN 235 - Business Law Credit(s): 4
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Electives Credit(s): 12 <sup>1,2</sup>
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Natural Science (NL or N) Requirement Credit(s): 3

**Second Year Total: 33**

**Total Credits: 64-66**

<sup>1</sup> Students need to take a fine arts course to earn the AA degree or another science or mathematics course to earn the AS degree.

<sup>2</sup> Approved electives include ACTG 205\*, BFIN 260\*, BGEN 280\*, BMGT 205C\*, BMGT 235, and BMKT 225.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## Business Administration Transfer

### Associate of Science Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- BGEN 235 - Business Law Credit(s): 4
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \* <sup>1</sup>
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 32**

#### Second Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BMIS 270 - MIS Foundations for Business Credit(s): 3 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Electives Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Mathematics (M) Requirement Credit(s): 3  
**OR**
- Natural Science (NL or N) Requirement Credit(s): 3
  
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 62**

<sup>1</sup> Finance majors should take M 162M\*. This course should be taken prior to or concurrently with ACTG 201.

\*Indicates prerequisite and/or corequisite needed. Check course description.

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*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*



# Business Administration, AAS

2015-2016

(Also offered at Lincoln County Campus)

This program is designed to give the student a high level of proficiency as a technical business manager/marketer and leads to an Associate of Applied Science degree in business administration. Upon completion of this program, students will:

- Read, understand, explain, and use basic financial statements to make management and marketing decisions;
- Be able to use Microsoft Office, Word, and Excel as related to business applications;
- Explain how marketing relates to the overall management and success of a business enterprise;
- Understand and apply basic business law applications to daily business operations and personnel;
- Develop a basic business plan, marketing plan and financial projections as commonly used in business; and
- Explain the importance of Human Resource Management to the overall management of an organization including job analysis, job descriptions, job specifications, hiring, training, and employee appraisal.

## Required Courses

### First Year - Fall Semester

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BMGT 215 - Human Resource Management Credit(s): 3
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4 \*
- BMKT 225 - Marketing Credit(s): 3
  
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- OR**
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3

**First Semester Total: 17**

### Spring Semester

- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMGT 235 - Management Credit(s): 3
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- M 095- - Intermediate Algebra Credit(s): 4 \*

**Second Semester Total: 17**

### Second Year - Fall Semester

- ACTG 180 - Payroll Accounting Credit(s): 2 \*
- BGEN 235 - Business Law Credit(s): 4
  
- CAPP 112 - Short Courses: MS PowerPoint Credit(s): 1 **and**
- CAPP 116 - Short Courses: MS Excel Credit(s): 1 **and**
- CAPP 118 - Short Courses: MS Access Credit(s): 1
- OR**
- CAPP 156 - MS Excel Credit(s): 3
  
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- Electives: Take one class from: ACTG or CAPP Credit(s): 3

**First Semester Total: 15**

## Spring Semester

- ACTG 150 - Accounting on Microcomputers Credit(s): 3 \*
- BFIN 260 - Principles of Finance Credit(s): 4 \*
- BGEN 110 - Applied Business Leadership Credit(s): 3
- BGEN 280 - Business Planning Credit(s): 3 \*
- BGEN 299 - Capstone Credit(s): 3 \*

**Second Semester Total: 16**

**Total Credits: 65**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Optional Course Offering:

- BGEN 298 - Internship Credit(s): 3 \*

## Program Information

- An internship is optional for this program. Students must apply for internship placements for this program the prior semester. See Internships for more information and application deadlines.
- The program provides primary training for entry-level management/supervisory positions.
- A student going to class part-time in the evenings only should be able to complete the Business Administration or Small Business Management AAS degree in eight semesters or less.
- All Required Courses within the degree program must be taken for a letter grade. No courses may be taken on a Satisfactory/Unsatisfactory (S/U) basis.
- If you are considering transfer to a four-year college, some of the courses will transfer as electives only. See your advisor. If you are going to graduate in the current academic year, you must see an advisor in the Business Division prior to enrolling fall semester.

## Opportunities after Graduation

- This degree prepares graduates for employment in entry-level management positions with both small and large businesses in retail, wholesale trade, manufacturing or banking industries along with local and state governments.
- Graduates may work as employment specialists, cashiers, administrative assistants, shipping/receiving, project managers, assistant managers or management trainees.
- Growth opportunities vary with industry.

## Advisors:

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## 2015-2016

*(Also offered at Lincoln County Campus)*

The following curriculum develops entry-level competencies necessary for supervisory positions. The curriculum also provides a foundation for the student who may desire to seek a two-year Business Administration AAS degree at a future date. Upon completion of this program, students will:

- Read, understand, explain and use basic financial statements to make management decisions;
- Use Microsoft Office, Word and Excel as related to business applications;
- Explain how marketing and management are interrelated to overall success of a business; and
- Explain the importance of human relations to the overall management of an organization including job analysis, job descriptions, job specifications, hiring, training, employee appraisal, and discipline.

### Required Courses

#### Fall Semester

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BMGT 235 - Management Credit(s): 3
- BMIS 211 - Introduction to Business Decision Support  
Credit(s): 4 \*
- BMKT 225 - Marketing Credit(s): 3
- COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3

**First Semester Total: 17**

#### Spring Semester

- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BGEN 299 - Capstone Credit(s): 3 \*
- BMGT 205C - Professional Business Communication  
Credit(s): 3 \*
  
- ECNS 201B - Principles of Microeconomics Credit(s): 3  
**OR**
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
  
- M 095~ - Intermediate Algebra Credit(s): 4 \*

**Second Semester Total: 17**

**Total Credits: 34**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Business Administration, CAS

### Program Information

- This program is designed primarily for entry-level management/ supervisory positions.
- All courses within the certificate must be taken for a letter grade. No courses may be taken on a Satisfactory/Unsatisfactory (S/U) basis. Final grade point average of 2.0 or above is required for completion of the certificate.

### Opportunities after Graduation

- This certificate will prepare students for entry-level positions assisting managers with customer service, sales or marketing. Faster than average growth is anticipated for this industry both nationwide and in Montana.

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The Business Innovation and Development certificate will introduce students to business management, accounting and marketing, entrepreneurial thinking, and launching a new business. The student will explore and conceptualize innovative ideas, expand the entrepreneurial thinking mindset through activities and problem solving, develop and refine vision statements, mission statements, and business plans and implement steps toward starting a small business. Upon completion of this program, students will:

- Identify business opportunities through market research;
- Implement strategies and make modifications based on feedback from potential customers;
- Articulate a vision statement for their business idea, both orally and in writing; and
- Develop a professional grade business plan that could be presented to financial institutions for consideration.

## Required Courses

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BGEN 120 - Business Innovation: Concept to Launch  
Credit(s): 5
- BMGT 210 - Small Business Entrepreneurship Credit(s): 3
- BMKT 225 - Marketing Credit(s): 3
- CAPP 103 - QuickBooks Fundamentals Credit(s): 2\*

### Total Credits: 17

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Program Information

- This program is designed to expand an entrepreneurial mindset and develop an innovative idea into a viable business.
- Provides an introduction into small business management concepts, which can be translated into accelerated launching of a business.

## Opportunities after Graduation

- This certificate prepares a student to launch a small business or acquire entry-level business management positions. Self-employment is the fastest growing sector in Flathead County. Small businesses employ over 70% of all employees in Montana and create 50% of all new jobs in the U.S.

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## 2015-2016

Chemistry is broadly defined as the physical science of matter and the changes matter undergoes. This discipline includes the study of atoms and molecules, and how these sub-microscopic objects combine with one another in chemical reactions. Understanding the fundamentals of chemistry serves as a foundation to nearly all other areas of science. Applications of chemistry are widespread in industry, environmental science, and medicine. A few careers that rely heavily on chemical principles are chemical engineering, biology, pharmacy, pharmacology, medicine, veterinary medicine, geology, psychology, criminology, business, industry, law, journalism, and art.

In addition to courses required in their major areas of study, colleges and universities require students working toward baccalaureate degrees to complete certain general education requirements. Students should be able to complete the general education requirements of the Montana University System and earn an Associate of Science (AS) degree by following FVCC's chemistry transfer program. Students intending to begin their work at FVCC toward a degree or a major in chemistry should carefully consult the current catalog of the college or university to which they anticipate transferring. Every program has specific degree requirements. **Montana State University - Bozeman** offers bachelor degrees in chemistry and biochemistry with professional and teaching options. **Montana Tech of the University of Montana** offers bachelor programs in chemistry and biochemistry. **The University of Montana - Missoula** offers bachelor degrees in chemistry, biochemistry, biological chemistry, environmental chemistry, and pharmacology. MSU and UM also offer graduate study programs leading to the MS and PhD degrees.

### Associate of Science Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year - Fall Semester

- BMIS 211 - Introduction to Business Decision Support Credit(s): 4 \*
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- M 171M - Calculus I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 17**

##### Spring Semester

- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*

**Second Semester Total: 15**

##### Summer Semester

- Global Issues (G) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Third Semester Total: 9**

## Chemistry Transfer

### Second Year - Fall Semester

- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- M 273M - Multivariable Calculus Credit(s): 5 \*
- PHSX 222NL - Physics II (with Calculus) Credit(s): 5
- Humanities (H) Requirement Credit(s): 3

**First Semester Total: 18**

### Spring Semester

- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- M 221M - Introduction to Linear Algebra Credit(s): 4 \*<sup>1</sup>
- Communications (C) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 15**

**Total Credits: 74\*\***

*\*Indicates prerequisite and/or corequisite needed. Check course description.*

*\*\*Specific options students may pursue are biochemistry, biological chemistry, environmental chemistry or pharmacology. These alternative courses may include the following:*

- |                                      |                                |              |
|--------------------------------------|--------------------------------|--------------|
| <input type="checkbox"/> BCH 280N*   | Biochemistry                   | Credit(s): 3 |
| <input type="checkbox"/> BCH 281L*   | Biochemistry Lab               | Credit(s): 2 |
| <input type="checkbox"/> BIOB 160NL  | Principles of Living Systems   | Credit(s): 4 |
| <input type="checkbox"/> BIOB 260NL* | Cellular and Molecular Biology | Credit(s): 5 |
| <input type="checkbox"/> BIOB 275N*  | General Genetics               | Credit(s): 4 |
| <input type="checkbox"/> GEO 101NL   | Intro to Physical Geology      | Credit(s): 4 |

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# Chemistry Transfer

2015-2016

## Associate of Science Degree

**Suggested course of study for Biochemistry majors transferring to Montana State University - Bozeman:**

### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
  
- M 162M - Applied Calculus Credit(s): 5 \*
- OR**
- M 171M - Calculus I Credit(s): 5 \*
  
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 17**

### Spring Semester

- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- Communications (C) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 19**

### Second Year - Fall Semester

- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- PHSX 205NL - College Physics I Credit(s): 5
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**First Semester Total: 19**

### Spring Semester

- BCH 280N - Biochemistry Credit(s): 3 \*
- BCH 281L - Biochemistry Lab Credit(s): 2 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- PHSX 207NL - College Physics II Credit(s): 5 \*

**Second Semester Total: 15**

**Total Credits: 70**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Associate of Science

**Suggested course of study for Biochemistry majors transferring to Montana Tech of The University of Montana:**

### First Year - Fall Semester

- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- M 171M - Calculus I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Social Sciences (A) Requirement Credit(s): 3

**First Semester Total: 16**

### Spring Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- Communications (C) Requirement Credit(s): 3

**Second Semester Total: 17**

### Summer Semester

- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3

**Third Semester Total: 6**

### Second Year - Fall Semester

- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- PHSX 205NL - College Physics I Credit(s): 5 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**First Semester Total: 17**

### Spring Semester

- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*
- OR**
- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
  
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- PHSX 207NL - College Physics II Credit(s): 5 \*
- Social Science (B) Requirement Credit(s): 3

**Second Semester Total: 17-18**

**Total Credits: 73-74 \*\***

In addition, BIOH 201NL\* is also recommended prior to transferring. The rigor of this program may necessitate it be completed with a third year and/or by attending additional semesters.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\* CSCI 111 could be taken to satisfy another requirement if a student spends additional time at FVCC before transferring.

Montana Tech's Chemistry major has a curriculum very similar to that of Biochemistry. See an advisor for the specific differences.



## 2015-2016

### Associate of Science Degree

#### Suggested course of study for Chemistry majors transferring to Montana State University - Bozeman:

##### First Year - Fall Semester

- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- M 171M - Calculus I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Social Sciences (A) Requirement Credit(s): 3

##### First Semester Total: 16

##### Spring Semester

- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*<sup>1</sup>

##### Second Semester Total: 15

##### Summer Semester

- Communications (C) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

##### Third Semester Total: 9

##### Second Year - Fall Semester

- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- M 273M - Multivariable Calculus Credit(s): 5 \*
- PHSX 222NL - Physics II (with Calculus) Credit(s): 5 \*<sup>1</sup>

##### First Semester Total: 15

##### Spring Semester

- BCH 280N - Biochemistry Credit(s): 3 \*
- BCH 281L - Biochemistry Lab Credit(s): 2 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

##### Second Semester Total: 16

##### Total Credits: 71

<sup>1</sup> Physics option. A student can take the alternate College Physics option. A student who does not place into M 171M\* would need to follow the College Physics option in order to complete the AS degree in two years.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Chemistry Transfer

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

# Communication Studies Transfer

2015-2016

The program in communication studies helps to prepare students for such diverse professions as: public relations officer, marketing analyst, human resources or personnel manager, community mediator, political speech writer, health communication trainer, social services director or student services coordinator.

The Department of Communication Studies at **The University of Montana - Missoula** focuses on three broad areas of study: interpersonal interaction and human relationships, organizational communication, and rhetoric and public discourse.

## Associate of Arts Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives Credit(s): 3
- Electives Credit(s): 3
- Fine Arts (F) Requirement Credit(s): 3
  
- LIT 110H - Introduction to Literature Credit(s): 3 <sup>3</sup>
- OR**
- Humanities (H) Requirement Credit(s): 3 <sup>1,2</sup>
  
- Natural Science (NL) Requirement Credit(s): 3
  
- PSYX 100A - Introduction to Psychology Credit(s): 4 <sup>2</sup>
- OR**
- SOCI 101A - Introduction to Sociology Credit(s): 3 <sup>1</sup>
- OR**
- Social Sciences (A) Requirement Credit(s): 3 <sup>3</sup>

**First Year Total: 30-31**

#### Second Year

- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
  
- ANTY 220G - Culture and Society Credit(s): 3 <sup>1</sup>
- OR**
- SOCI 220GA - Race, Gender and Class Credit(s): 3 <sup>2,3</sup>
  
- Electives Credit(s): 3
- Electives Credit(s): 3
  
- HSTA 102B - American History II Credit(s): 4 <sup>3</sup>
- OR**
- Social Sciences (B) Requirement Credit(s): 3-4 <sup>1,2</sup>
  
- PSCI 250B - Introduction to Political Theory Credit(s): 3 <sup>3</sup>
- OR**
- Humanities (H) Requirement Credit(s): 3 <sup>1,2</sup>
- OR**
- Fine Arts (F) Requirement Credit(s): 3 <sup>1,2</sup>
  
- PSYX 230A - Developmental Psychology Credit(s): 3 \* <sup>2</sup>
- OR**
- Electives Credit(s): 3 <sup>1,3</sup>
  
- PSYX 233 - Fundamentals of Psychology of Aging Credit(s): 3 \* <sup>2</sup>
- OR**
- Electives Credit(s): 3 <sup>1,3</sup>

**Second Year Total: 31-32**

**Total Credits: 61-63**

<sup>1</sup> If pursuing the Organizational Communication option.

<sup>2</sup> If pursuing the Communication and Human Relationships option.

<sup>3</sup> If pursuing the Rhetoric and Public Discourse option.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

Joe Legate  
AT 255  
(406) 756-3906  
jlegate@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

## 2015-2016

Computer Science is a profession concerned with both the theoretical investigations and practical developments in computer technology, programming, and applications. Computer Science graduates generally find employment in the high tech or scientific areas. Listed below is the suggested course of study for students transferring to **Montana State University - Bozeman, The University of Montana - Missoula, and Montana Tech of The University of Montana.** The computer engineering transfer program to MSU is listed under the engineering transfer program.

Those students who do not meet the prerequisites for the computer science or the math courses in the course of study listed below should meet with an advisor to discuss their options.

### Associate of Science Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman:

##### First Year - Fall Semester

- CSCI 111 - Programming with Java I Credit(s): 4
- M 171M - Calculus I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3

**First Semester Total: 15**

##### Spring Semester

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- M 172M - Calculus II Credit(s): 5 \*
- WRIT 201W - College Writing II Credit(s): 3 \*
  
- Fine Arts (F) Requirement Credit(s): 3
- OR**
- Humanities (H) Requirement Credit(s): 3
  
- Social Sciences (B) Requirement Credit(s): 3

**Second Semester Total: 17**

##### Second Year - Fall Semester

- CSCI 232 - Data Structures and Algorithms Credit(s): 3 \*
- M 225M - Introduction to Discrete Mathematics Credit(s): 4 \*
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*

**First Semester Total: 15**

##### Spring Semester

- CSCI 113 - Programming with C++ I Credit(s): 4 \*
- M 221M - Introduction to Linear Algebra Credit(s): 4 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Social Sciences (A) Requirement Credit(s): 3

**Second Semester Total: 15**

**Total Credits: 62**

\* Indicates prerequisite and/or corequisite needed. Check course description.

## Computer Science Transfer

### Associate of Science Degree

#### Suggested course of study for a transfer to Montana Tech of The University of Montana:

##### First Year - Fall Semester

- CSCI 111 - Programming with Java I Credit(s): 4
- M 171M - Calculus I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Social Sciences (A) Requirement Credit(s): 3

**First Semester Total: 15**

##### Spring Semester

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- CSCI 121 - Programming with Java II Credit(s): 4 \*
- M 172M - Calculus II Credit(s): 5 \*
- Natural Science (NL) Requirement Credit(s): 5-6 <sup>1</sup>

**Second Semester Total: 17-18**

##### Second Year - Fall Semester

- M 273M - Multivariable Calculus Credit(s): 5 \*
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 5-6 <sup>1</sup>
- Social Sciences (B) Requirement Credit(s): 3

**First Semester Total: 16-17**

##### Spring Semester

- CSCI 113 - Programming with C++ I Credit(s): 4 \*
- CSCI 232 - Data Structures and Algorithms Credit(s): 3 \*
- M 274M - Introduction to Differential Equations Credit(s): 5 \*
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 18**

**Total Credits: 66-68**

<sup>1</sup>This Natural Science requirement must be fulfilled with a two semester sequence of laboratory science (minimum of 12 credits total). Students must choose either CHMY 141NL\* and CHMY 143NL\* and two additional science credits OR PHSX 220NL\* and PHSX 222NL\*. Students pursuing the control systems option at MT Tech must take the PHSX sequence. This program at Montana Tech requires a third, 3-credit science elective which students could take as time permits. Computer Science

\*Indicates prerequisite and/or corequisite needed. Check course description.

# Computer Science Transfer

2015-2016

## Associate of Science Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year - Fall Semester

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- CSCI 111 - Programming with Java I Credit(s): 4
- M 171M - Calculus I Credit(s): 5 \*
- Humanities (H) Requirement Credit(s): 3

**First Semester Total: 15**

#### Spring Semester

- CSCI 121 - Programming with Java II Credit(s): 4 \*
  - M 172M - Calculus II Credit(s): 5 \*
  - WRIT 101W - College Writing I Credit(s): 3 \*
  - Global Issues (G) Requirement Credit(s): 3
- 
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 18**

#### Second Year - Fall Semester

- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CSCI 232 - Data Structures and Algorithms Credit(s): 3 \*
- M 225M - Introduction to Discrete Mathematics Credit(s): 4 \*
- Social Sciences (A) Requirement Credit(s): 3

**First Semester Total: 15**

#### Spring Semester

- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- M 221M - Introduction to Linear Algebra Credit(s): 4 \*
- WRIT 201W - College Writing II Credit(s): 3 \*
- Social Sciences (B) Requirement Credit(s): 3

**Second Semester Total: 15**

**Total Credits: 63\*\***

\* Indicates prerequisite and/or corequisite needed. Check course description.

\*\* If time permits, students should consider taking CSCI 113\*.

#### Advisor:

Jim Goudy  
RH 133B  
(406) 756-3617  
jgoudy@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## 2015-2016

The Criminal Justice program at the **University of Great Falls**, **The University of Montana - Missoula**, and **Montana State University - Northern** prepares students for employment in public and private criminal justice agencies, law enforcement agencies, as well as correctional, probation, and parole organizations. After earning a bachelor's degree in criminal justice, students may also choose to pursue graduate school, studying sociology, criminal justice, or law. As of 2009-2010 under a new 2+2 partnership, students will be able to complete the Bachelor of Arts degree in Criminal Justice through the University of Great Falls on the FVCC campus.

### Associate of Arts Degree

#### Criminal Justice Transfer to Montana State University - Northern (on-line)

##### First Year

- CJUS 121A - Introduction to Criminal Justice Credit(s): 3
- CJUS 220 - Introduction to Corrections Credit(s): 3
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- PSCI 210B - Introduction to American Government Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- SOCI 101A - Introduction to Sociology Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3

**First Year Total: 31**

##### Second Year

- CHMY 280NL - Forensic Science I Credit(s): 4\* <sup>1</sup>
- CHMY 282NL - Forensic Science II Credit(s): 4\* <sup>1</sup>
- CJUS 200 - Principles of Criminal Law Credit(s): 3
- CJUS 230 - Police Organization Credit(s): 3
  
- CJUS 298 - Internship Credit(s): 3\* <sup>2</sup>
- OR**
- Electives Credit(s): 3
- OR**
- Minor Course Credit(s): 3 <sup>3</sup>
  
- PSYX 240A - Fundamentals of Abnormal Psychology Credit(s): 3 \*
- WRIT 201W - College Writing II Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 29**

**Total Credits: 60 \*\***

<sup>1</sup> The CHMY courses would be advised although any approved NL and N or NL will work.

<sup>2</sup> A student is required to do six credits of Internship to earn the bachelor's degree and could do all six while earning the FVCC associate degree.

<sup>3</sup> MSU-Northern requires a minor. See their website for a list of minors. Speak with an advisor of that minor and take lower division courses in that minor at FVCC.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*Students could take more courses which are in their chosen minor.

## Criminal Justice Transfer

### Associate of Science Degree

#### Suggested course of study for a transfer to the University of Great Falls:

##### First Year

- CAPP 120 - Introduction to Computers Credit(s): 3
- CJUS 121A - Introduction to Criminal Justice Credit(s): 3
- CJUS 200 - Principles of Criminal Law Credit(s): 3
- CJUS 220 - Introduction to Corrections Credit(s): 3
- CJUS 231 - Criminal Evidence and Procedure Credit(s): 2 \*
- CJUS 271 - Introduction to Judicial Function Credit(s): 1 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \* <sup>1</sup>
- SOCI 101A - Introduction to Sociology Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3 <sup>2</sup>

- RLST 100G - Introduction to the Study of Religion Credit(s): 3
- OR**
- RLST 220G - Interpretations of American Religion Credit(s): 3

**First Year Total: 33**

##### Second Year

- CHMY 280NL - Forensic Science I Credit(s): 4 \*
- CHMY 282NL - Forensic Science II Credit(s): 4 \*
- LIT 110H - Introduction to Literature Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- SOCI 260 - Introduction to Juvenile Delinquency Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \* <sup>1</sup>
- WRIT 201W - College Writing II Credit(s): 3 \*

- Mathematics (M) Requirement Credit(s): 4
- OR**
- Natural Science (NL or N) Requirement Credit(s): 4
  
- Social Sciences (B) Requirement Credit(s): 3-4

**Second Year Total: 32-33**

**Total Credits: 65-66**

<sup>1</sup>Students could take M 145M\* and a UGF Statistics course instead.

<sup>2</sup>Needed to satisfy a UGF Fine Arts requirement and the second AS Humanities/Fine Arts requirement.

\*Indicates prerequisite and/or corequisite needed. Check course description.



# Criminal Justice, Transfer

2015-2016

## Associate of Arts/Associate of Science Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- CJUS 121A - Introduction to Criminal Justice Credit(s): 3
- CJUS 230 - Police Organization Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- PSCI 210B - Introduction to American Government Credit(s): 3
- SOCI 101A - Introduction to Sociology Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 3 <sup>1</sup>
- Electives Credit(s): 3 <sup>1</sup>
- Electives Credit(s): 3 <sup>1</sup>
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 30**

#### Second Year

- CHMY 280NL - Forensic Science I Credit(s): 4 \*
- CJUS 231 - Criminal Evidence and Procedure Credit(s): 2 \*
- CJUS 271 - Introduction to Judicial Function Credit(s): 1 \*
- SOCI 220GA - Race, Gender and Class Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Electives Credit(s): 3 <sup>1</sup>
- Electives Credit(s): 4

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

- Fine Arts (F) Requirement Credit(s): 3-4 <sup>3</sup>

**OR**

- Mathematics (M) Requirement Credit(s): 3-4

**OR**

- Natural Science (NL or N) Requirement Credit(s): 3-4 <sup>4</sup>

- Natural Science (NL or N) Requirement Credit(s): 3-4 <sup>2</sup>

**Second Year Total: 30-32**

**Total Credits: 60-62**

<sup>1</sup> Suggested electives include PSYX 100A, PSYX 150 and PSYX 240A\*.

<sup>2</sup> Although only CHMY 280NL\* will directly work as a transfer course, CHMY 282NL\* would also prepare the student for a 400-level course at The University of Montana.

<sup>3</sup> For an AA degree.

<sup>4</sup> For a BS degree.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor

Michael Skinner  
BSS 128  
(406) 756-3870  
mskinner@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change.  
Students should see their advisor to explore other possibilities not specifically listed in the program*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## 2015-2016

This program provides a well-rounded general education in criminal justice. The curriculum is designed to assist students in preparation for entry-level positions in the criminal justice field. Upon completion of this program, students will:

- Define, describe and analyze the various components of the criminal justice system including the courts, law enforcement and corrections;
- Describe, discuss and identify various causes of crime;
- Critically examine various sources of crime data and patterns;
- Describe and assess multicultural communities; and
- Evaluate, plan and formulate the most effective law enforcement actions to reduce crime.

### Required Courses

#### First Year - Fall Semester

- CJUS 121A - Introduction to Criminal Justice Credit(s): 3
- CJUS 200 - Principles of Criminal Law Credit(s): 3
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 16**

#### Spring Semester

- BMIS 211 - Introduction to Business Decision Support Credit(s): 4 \*
- CJUS 230 - Police Organization Credit(s): 3
- M 095~ - Intermediate Algebra Credit(s): 4 \*
- SOCI 101A - Introduction to Sociology Credit(s): 3
- Electives Credit(s): 2

**Second Semester Total: 16**

#### Second Year - Fall Semester

- CHMY 280NL - Forensic Science I Credit(s): 4 \*
- CJUS 231 - Criminal Evidence and Procedure Credit(s): 2 \* +
- CJUS 271 - Introduction to Judicial Function Credit(s): 1 \* +
- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
- PSCI 210B - Introduction to American Government Credit(s): 3
  
- SOCI 201 - Social Problems Credit(s): 3
- OR**
- SOCI 220GA - Race, Gender and Class Credit(s): 3

**First Semester Total: 16**

#### Spring Semester

- AMGT 113 - Keyboarding and Document Processing Credit(s): 3 \*
- CHMY 282NL - Forensic Science II Credit(s): 4 \*
- CJLE 109C - Police Report Writing Credit(s): 3
- CJUS 220 - Introduction to Corrections Credit(s): 3
- SOCI 260 - Introduction to Juvenile Delinquency Credit(s): 3

**Second Semester Total: 16**

**Total Credits: 64**

## Criminal Justice, AAS

### Optional Course Offerings:

- ACT 285 - Handgun Marksmanship Credit(s): 1 \*
  - CJUS 298 - Internship Credit(s): 3 \*
- + Indicates courses that must be taken concurrently.

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, contact the AmeriCorps office at (406) 756-3908.
- An internship is optional for this program. Students must apply for internship placements for this program the prior semester. See internships for more information and application deadlines.
- .22-caliber handgun is required for ACT 285\* (optional course).

### Opportunities after Graduation

- Criminal Justice graduates work as bailiffs, security guards, investigators, border patrol agents, and in positions in law enforcement and corrections. Job opportunities in the criminal justice field are greater in Montana compared to the national average.

### Advisor:

Michael Skinner  
BSS 128  
(406) 756-3870  
mskinner@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

# Culinary Arts, AAS

2015-2016

The Culinary Arts program provides students with entry-level skills in the culinary arts industry. Students receive instruction in cooking and baking, as well as theoretical knowledge that underlines competency in the field. Additional training involves table services, menus, cost controls, storeroom and stewarding. Upon completion of this program, students will:

- Learn and effectively practice basic and advanced technical skills in food preparation and service;
- Explain and apply sanitation guidelines related to food handling;
- Understand usage, storage, nutrition and identification of product;
- Define and describe classic cooking terminology and methods;
- Gain experience in the proper use and maintenance of professional culinary equipment;
- Employ station organization and line management;
- Become familiar with production, layout and workflow of professional kitchens and bakeshops;
- Gain an appreciation for the history, evolution, and international diversity of culinary arts;
- Illustrate skill in completing various components of front-of-house operations, particularly those related to food and beverage service and customer relations;
- Implement human resource management strategies to increase motivation and productivity;
- Use basic accounting procedures for creating a financial plan or budget, cost controls, and forecasting or projecting sales; and
- Develop a sense of professionalism and management skills necessary for successfully operating within a food service facility.

Please note that there is a mandatory orientation prior to official start of classes. Once accepted into the program, students will be notified of the orientation dates.

## Required Courses

### Fall Semester

- CULA 103 - Professional Chef I: Savory Credit(s): 5 \*
- CULA 105 - Food Service Sanitation Credit(s): 1 \*
- CULA 106 - Professional Chef I: Baking and Pastry Credit(s): 5 \*
- CULA 111 - Catering: Fall Credit(s): 1 \*
- CULA 120 - Purchasing and Product Identification Credit(s): 1 \*
- CULA 148 - Food and Beverage Service Credit(s): 2 \*
- CULA 149 - Food Service Lab Credit(s): 1 \*<sup>1</sup>
- CULA 152 - Chef's Table Credit(s): 2 \*<sup>1</sup>

### First Semester Total: 16-18

<sup>1</sup> CULA 149\* and CULA 152\* may be taken either fall or spring semester, but must be completed by the end of the spring semester.

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Spring Semester

- CULA 104 - Professional Chef II: Savory Credit(s): 5 \*
- CULA 108 - Professional Chef II: Baking and Pastry Credit(s): 5 \*
- CULA 111 - Catering: Spring Credit(s): 1 \*
- CULA 149 - Food Service Lab Credit(s): 1 \*<sup>1</sup>
- CULA 152 - Chef's Table Credit(s): 2 \*<sup>1</sup>
- CULA 220 - Purchasing and Cost Control Credit(s): 3 \*<sup>2</sup>
- CULA 250 - Hospitality Supervision Credit(s): 3 \*

### Second Semester Total: 18-20

<sup>1</sup>CULA 149\* and CULA 152\* may be taken either fall or spring semester, but must be completed by the end of spring semester.

<sup>2</sup>M 065-\* MUST be completed as a prerequisite before registering for CULA 220\* if required COMPASS score was not met.

### Summer Semester

- CULA 111 - Catering: Summer Credit(s): 2 \*
- CULA 201 - Professional Chef III Credit(s): 6 \*
- CULA 210 - Nutritional Cooking Credit(s): 2 \*
- CULA 240 - Menu Planning Credit(s): 2 \*

### Third Semester Total: 12

### Fall Semester

- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMGT 210 - Small Business Entrepreneurship Credit(s): 3
- CULA 299 - Capstone: Professional Chef IV Credit(s): 12 \*

### Fourth Semester Total: 18

### Total Credits: 65

\*Indicates prerequisite and/or corequisite needed. Check course description.

### **Admission Guidelines**

- Before applying, students must first be accepted to Flathead Valley Community College, or, if currently a high school student, supply all application materials and a letter from a school counselor verifying readiness for graduation until such time an official transcript is supplied in May/June.
- Students must apply for select admission to this program. Applications are available after January 15 from the Admissions Office in Blake Hall, Room 111, and must be completed and returned to the Admissions Office by April 15.
- Admission to the program is based upon the following:
  1. Proof of a score of 78 or higher on the Reading Skills portion of the COMPASS or equivalent placement test
  2. Proof of a score of 71 or higher on the Writing Skills portion of the COMPASS or equivalent placement test
  3. Proof of a score of 50 or higher on the Pre-Algebra portion of the COMPASS or equivalent placement test
- Educational Performance in lieu of placement scores (see previous bullet):
  - An official copy of transcript proving a "C-" or better in a 100-level or above college course requiring college-level reading  
AND/OR
  - An official copy of transcript proving a "C-" or better in M 065~\*, its equivalent, or higher math course  
AND/OR
  - An official copy of transcript proving a "C-" or better in BMGT 205C \*, WRIT 095~\*, or WRIT 101W\*, or their equivalents
- Experience in the culinary field, if any.
- Well-written essay (details provided within application packet).
- References from two people who are not relatives who have knowledge of the student's work ethic, maturity, and passion for culinary arts.

### **Program Information**

- Fees for this program are higher than average. Please see the program director for more details.

### **Opportunities after Graduation**

- Graduates will work in restaurants, resorts, schools, hotels and health care facilities. The Flathead Valley offers many job opportunities in the Culinary Arts Industry.

### **Advisor:**

Howard M. Karp  
AT 149  
(406) 756-3862  
chefhmk@gmail.com

For general information, contact the Admissions Office:  
(406) 756-3847.

# Dental Hygiene Transfer

2015-2016

The dental hygienist is a licensed health care professional, oral health educator, and clinician who is an integral part of the dental team. Registered dental hygienists provide direct dental hygiene care to patients.

Dental hygienists discuss general health issues with patients. They look for any abnormalities or disease in the oral cavity. Hygienists take x-rays and inspect patients' teeth for deposits and decay. They perform cancer screenings of the head and neck lymph nodes. Hygienists use dental instruments to remove deposits and stains from around the teeth. They administer anesthetic agents and nitrous oxide sedation for ease and comfort of the client/patient during hygiene care. They also do preventative procedures such as fluoride and sealant placement.

**Great Falls College - Montana State University** offers an Associate of Applied Science Degree in Dental Hygiene. It is a competitive program and students often times seek the entire AS degree to enhance their application or for flexibility to transfer for other health majors. **Sheridan College**, part of the Northern Wyoming Community College, has an AAS degree which has similar prerequisite courses as the one for Great Falls College - Montana State University.

## Associate of Science Degree

### Suggested course of study for a transfer to Great Falls College - Montana State University in pre-dental hygiene:

#### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
  
- M 145M - Mathematics for the Liberal Arts Credit(s): 3 \*
- OR**
- M 152M - Precalculus Algebra Credit(s): 3 \*
  
- PSYX 100A - Introduction to Psychology Credit(s): 4<sup>1</sup>
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 18**

#### Spring Semester

- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- SOCI 101A - Introduction to Sociology Credit(s): 3 <sup>1</sup>
  
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- OR**
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3 <sup>1</sup>

**Second Semester Total: 18++**

++All of the above are prerequisites or program requirements (as noted). Finishing the remainder of the degree will give the student a slight advantage in the application evaluation process.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Second Year - Fall Semester

- CHMY 160 - Pharmacology Credit(s): 3 <sup>1</sup>
- Electives Credit(s): 3
- Electives Credit(s): 3
- Humanities (H) Requirement Credit(s): 3

**First Semester Total: 12**

#### Spring Semester

- Electives Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (B) Requirement Credit(s): 3

**Second Semester Total: 12**

**Total Credits: 60 \*\***

<sup>1</sup> Program requirements which can be taken at FVCC to lighten the load when the student is in the Great Falls College - MSU Dental Hygiene program.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\* Additional requirements at Sheridan College are NUTR 221N and WRIT 121C\* or WRIT 201W\*.

#### Advisor:

Adam Wenz  
RH 106  
(406) 756-3616  
awenz@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.



## 2015-2016

The Early Childhood Education program provides students with the theoretical and practical knowledge needed to create environments that will maximize the developmental and learning potential of all young children (birth to age 8) using developmentally appropriate practices as a foundation for program planning. Issues of diversity, inclusion and professionalism are intricately woven throughout all of the coursework. Students will have an opportunity to gain experience and knowledge through hands-on participation in early education settings. Upon completion of this program, students will:

- Apply child development theory to practice;
- Observe, record, and assess child growth and development;
- Implement developmentally appropriate curriculum;
- Incorporate developmentally appropriate guidance strategies;
- Integrate health, safety, and nutrition practices according to local, state and national standards;
- Provide a respectful, diverse and inclusive program;
- Use interpersonal skills to develop respectful relationships with children and adults;
- Demonstrate professional and ethical standards; and
- Advocate for children, families, and the profession.

### Required Courses

#### First Year - Fall Semester

- COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3
- EDEC 108 - Introduction to Early Childhood Education  
Credit(s): 3
- EDEC 130 - Health, Safety, and Nutrition in Early Childhood  
Credit(s): 3
- EDEC 245 - Early Childhood Developmental Themes  
Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4

**First Semester Total: 16**

#### Spring Semester

- EDEC 210 - Meeting the Needs of Families Credit(s): 3
- EDEC 235 - Creative Art for the Developing Child Credit(s): 2 \*
- EDEC 281 - Early Childhood Curriculum Design and Implementation I Credit(s): 3 \*
- EDEC 295 - Early Childhood Fieldwork/Practicum I  
Credit(s): 3 \*
- SOCI 101A - Introduction to Sociology Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*

**Second Semester Total: 17**

#### Second Year - Fall Semester

- EDEC 135 - Language and Literature for Young Children  
Credit(s): 2 \*
- EDEC 230 - Positive Child Guidance Credit(s): 3 \*
- EDEC 249 - Infant/Toddler Development and Group Care  
Credit(s): 4
- EDU 270 - Instructional Technology Credit(s): 3
- M 095~ - Intermediate Algebra Credit(s): 4 \*
- PSYX 230A - Developmental Psychology Credit(s): 3 \*

**First Semester Total: 19**

## Early Childhood Education, AAS

### Spring Semester

- EDEC 250 - Math and Science Curriculum for Early Childhood  
Credit(s): 2 \*
- EDEC 252 - Music and Movement for Young Children  
Credit(s): 2 \*
- EDEC 260 - Administration of Early Childhood Programs  
Credit(s): 3 \*
- EDEC 295 - Early Childhood Fieldwork/Practicum II  
Credit(s): 3 \*
- Electives Credit(s): 3-5

**Second Semester Total: 13-15**

**Total Credits: 65-67**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- All EDEC coursework is offered on a two-year rotation with the exception of EDEC 108, which is offered each fall.
- Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, contact the AmeriCorps office at (406) 756-3908.

### Opportunities after Graduation

- The demand for well-educated early childhood educators continues to increase. Program graduates are qualified to practice in a variety of early education and care settings, including early childhood education programs, child care centers, family home care settings, preschools and public school classrooms as primary grade para-educators. Continued education and experience provides opportunities to become teacher trainers, early childhood consultants, early education specialists and program administrators. The AAS degree in Early Childhood Education also articulates into UM-Western's BS program in Early Childhood Education.

### Advisor:

Marlyn James  
BSS 123  
(406) 756-3869  
mjames@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

# Economics Transfer

2015-2016

The transfer program in economics prepares students for a successful transfer to **The University of Montana - Missoula, Montana State University - Bozeman**, or other four-year institutions. **Montana State University - Bozeman** offers students two options, general economics and economic science, which could lead them to the Bachelor of Science degree in economics.

Students earning a bachelor degree in economics are prepared for various graduate programs including law school. Economists often seek employment opportunities as consultants, helping private businesses, non-profit organizations, and branches of government.

## Associate of Science Degree

### Suggested course of study for a transfer to Montana State University - Bozeman:

#### First Year

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- ECNS 101GB - Economic Way of Thinking Credit(s): 3
- ECNS 201B - Principles of Microeconomics Credit(s): 3 <sup>1</sup>
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- WRIT 201W - College Writing II Credit(s): 3 \*
- Electives Credit(s): 3
- Electives Credit(s): 3
- Electives Credit(s): 3
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 34**

#### Second Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- M 162M - Applied Calculus Credit(s): 5 \*
- M 171M - Calculus I Credit(s): 5 \*
- Humanities (H) Requirement Credit(s): 3
- OR
- Fine Arts (F) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- OR
- Natural Science (NL or N) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 64**

<sup>1</sup> Students will still need to take ECNS 204 at Montana State University - Bozeman but this will prepare the student for that course.

\*Indicates prerequisite and/or corequisite needed. Check course description.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

## Associate of Science Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- ECNS 201B - Principles of Microeconomics Credit(s): 3
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- M 152M - Precalculus Algebra Credit(s): 3 \* **and**
- M 162M - Applied Calculus Credit(s): 5 \*
- OR
- M 171M - Calculus I Credit(s): 5 \* <sup>1</sup> **and**
- M 172M - Calculus II Credit(s): 5 \* <sup>1</sup>
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 3
- Electives Credit(s): 3
- Electives Credit(s): 3
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 35-37**

#### Second Year

- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Electives Credit(s): 3
- Electives Credit(s): 3
- Electives Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- OR
- Fine Arts (F) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- OR
- Natural Science (NL or N) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 28**

**Total Credits: 63-65**

<sup>1</sup>If student has intention of going to graduate school.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

Gregg Davis, BSS 125  
(406) 756-3867, gdavis@fvcc.edu

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## 2015-2016

Most Montana four-year colleges and universities have teacher training programs in both elementary and secondary education. Elementary teachers are certified by the state to teach grades K-8. The national job outlook for teachers for the next five to ten years is quite favorable due to projected high levels of retirement.

Students may begin their teacher training at FVCC and in most cases complete their education in an additional two years at a transfer institution.

Admission into teacher education programs at four-year schools can be competitive and requires good grades, experience working with youth, and strong recommendations. Students need to apply to the school of education at their transfer school, usually the semester prior to starting at that school.

If time permits, students may consider taking additional coursework to fulfill concentration or endorsement requirements at their transfer institutions. ECP 100 - First Aid and CPR, could be taken but current certification is needed prior to student teaching, so a student may want to wait until the semester prior to student teaching. Students should consult their advisors and their transfer institutions for specific recommendations.

The suggested course load for the elementary education transfer programs is rigorous. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or by extending the course load for an additional semester or two at FVCC before transferring.

Education requirements vary from school to school, as well as deadlines to apply for admission into the School of Education. Therefore, it is important for students to meet with their advisor regularly.

### Associate of Arts Degree

#### Suggested course of study for a transfer to Montana State University - Billings majoring in elementary education or special education:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
  
- GPHY 121GA - Human Geography Credit(s): 3  
**OR**
- HSTR 102B - Western Civilization II Credit(s): 4
  
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- M 132M - Number and Operations for K-8 Teachers Credit(s): 3 \*
- M 133M - Geometry and Geometric Measurement for K-8 Teachers Credit(s): 3 \*
- MUSI 101F - Enjoyment of Music Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 31-32**

## Education: Elementary Transfer

### Second Year

- EDSP 204 - Introduction to Teaching Exceptional Learners Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3
  
- HSTA 101B - American History I Credit(s): 4  
**OR**
- HSTA 102B - American History II Credit(s): 4
  
- M 234 - Higher Mathematics for K-8 Teachers Credit(s): 3 \*
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- PHSX 126NL - General Science: Physical Science Credit(s): 5
- PSCI 210B - Introduction to American Government Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- PSYX 230A - Developmental Psychology Credit(s): 3 \*
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 34**

**Total Credits: 65-66**

\*Indicates prerequisite and/or corequisite needed. Check course description.

# Education: Elementary Transfer

2015-2016

## Associate of Arts Degree

### Suggested course of study for a transfer to Montana State University - Bozeman:

#### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- OR**
- PHSX 126NL - General Science: Physical Science Credit(s): 5
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- EDU 222 - Educational Psychology and Child Development Credit(s): 3 <sup>1</sup>
- OR**
- EDU 231 - Literature and Literacy for Children Credit(s): 3 <sup>1</sup>
- LIT 110H - Introduction to Literature Credit(s): 3
- M 132M - Number and Operations for K-8 Teachers Credit(s): 3 \*
- M 133M - Geometry and Geometric Measurement for K-8 Teachers Credit(s): 3 \*
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- OR**
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
- PSCI 210B - Introduction to American Government Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Year Total: 32**

#### Second Year

- ASTR 110N - Introduction to Astronomy Credit(s): 3 <sup>2</sup>
- EDU 222 - Educational Psychology and Child Development Credit(s): 3 <sup>1</sup>
- OR**
- EDU 231 - Literature and Literacy for Children Credit(s): 3 <sup>1</sup>
- EDU 270 - Instructional Technology Credit(s): 3
- GEO 100NL - Introduction to Earth Science Credit(s): 4
- OR**
- GPHY 111NL - Introduction to Physical Geography Credit(s): 4
- GPHY 121GA - Human Geography Credit(s): 3
- OR**
- GPHY 141GA - Geography of World Regions Credit(s): 3
- OR**
- SOCI 101A - Introduction to Sociology Credit(s): 3
- HSTA 101B - American History I Credit(s): 4
- OR**
- HSTA 102B - American History II Credit(s): 4
- M 234 - Higher Mathematics for K-8 Teachers Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3 <sup>3</sup>
- Fine Arts (F) Requirement Credit(s): 3
- OR**
- Humanities (H) Requirement Credit(s): 3

**Second Year Total: 29**

**Total Credits: 61**

<sup>1</sup> These courses are each offered every other year, so take each course as offered.

<sup>2</sup> Students wanting to have math as their area of concentration should take M 152M\* instead.

<sup>3</sup> Should be a studio arts or music class.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## 2015-2016

### Associate of Arts Degree

#### Suggested course of study for a transfer to Montana State University - Northern:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4  
**OR**
- BIOH 104N - Basic Human Biology Credit(s): 3 **and**
- BIOH 105L - Basic Human Biology Laboratory Credit(s): 1 \*
  
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3
- HSTA 255B - Montana History Credit(s): 3
- LIT 110H - Introduction to Literature Credit(s): 3
- M 132M - Number and Operations for K-8 Teachers Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Year Total: 32**

##### Second Year

- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- M 152M - Precalculus Algebra Credit(s): 3 \*
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- PHSX 126NL - General Science: Physical Science Credit(s): 5 \*
- PSCI 210B - Introduction to American Government Credit(s): 3
- Electives Credit(s): 6 <sup>1</sup>
- Fine Arts (F) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 28**

**Total Credits 60 \*\***

<sup>1</sup> Electives should be in the desired area of concentration.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*If course load allows, students could also take HTH 110 to fulfill another health requirement at MSU - Northern.

Most UGF curriculums are more than the 60 credits required for the AA or AS degree and few students could complete this curriculum in two years. This is because UGF is generous in accepting FVCC credits and has additional general education credits. Students who wish to earn a UGF degree must meet UGF residency requirements (number of UGF credits delivered to our campus or online) in the major. Please see the UGF catalog for details. Students applying only for licensure in a major should contact the UGF Education Department in Great Falls to determine if a specialized plan of study is appropriate.

## Education: Elementary Transfer

### Associate of Arts Degree

#### Suggested course of study for a transfer to the University of Great Falls:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CAPP 120 - Introduction to Computers Credit(s): 3
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- EDU 297 - Methods: K-8 Art Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- HSTA 101B - American History I Credit(s): 4
- M 132M - Number and Operations for K-8 Teachers Credit(s): 3 \*
- M 133M - Geometry and Geometric Measurement for K-8 Teachers Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3

**First Year Total: 35**

##### Second Year

- BIOB 126NL - General Science: Earth and Life Science Credit(s): 5
- EDSP 204 - Introduction to Teaching Exceptional Learners Credit(s): 3
- EDU 242 - Introduction to Gifted Education Credit(s): 2
- EDU 270 - Instructional Technology Credit(s): 3 <sup>1</sup>
- EDU 297 - Methods: K-8 Music Credit(s): 3
- GPHY 141GA - Geography of World Regions Credit(s): 3
- HSTA 102B - American History II Credit(s): 4
  
- LIT 110H - Introduction to Literature Credit(s): 3 <sup>2</sup>  
**OR**
- PHL 101H - Introduction to Philosophy: Reason and Reality Credit(s): 3
  
- M 234 - Higher Mathematics for K-8 Teachers Credit(s): 3 \*
- PHSX 126NL - General Science: Physical Science Credit(s): 5 \*
  
- RLST 100G - Introduction to the Study of Religion Credit(s): 3  
**OR**
- RLST 220G - Interpretations of American Religion Credit(s): 3
  
- STAT 216M - Introduction to Statistics Credit(s): 4 \* <sup>3</sup>
- WRIT 201W - College Writing II Credit(s): 3 \*
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 43-47**

**Total Credits: 78-82**

<sup>1</sup> Students should take this class near the end of their AA completion.

<sup>2</sup> Required if the student's concentration will be Communication Arts, otherwise either will work.

<sup>3</sup> Students could omit this course or take a UGF statistics course online instead.

\* Indicates prerequisite and/or corequisite needed. Check course description.

# Education: Elementary Transfer

2015-2016

## Associate of Arts Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year - Fall Semester

- BIOB 126NL - General Science: Earth and Life Science Credit(s): 5
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- M 132M - Number and Operations for K-8 Teachers Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
  
- Humanities (H)  
**OR**
- Fine Arts (FA) Requirement Credit(s): 3

**First Semester Total: 17**

#### Spring Semester

- EDU 297 - Methods: K-8 Music Credit(s): 3
- HSTA 255B - Montana History Credit(s): 3
- M 133M - Geometry and Geometric Measurement for K-8 Teachers Credit(s): 3 \*
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- PHSX 126NL - General Science: Physical Science Credit(s): 5 \*

**Second Semester Total: 17**

#### Summer Semester or Online

- PSCI 210B - Introduction to American Government Credit(s): 3

**Third Semester Total: 3**

**First Year Total: 37**

#### Second Year - Fall Semester

- EDU 297 - Methods: K-8 Art Credit(s): 3
- GPHY 141GA - Geography of World Regions Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- LIT 110H - Introduction to Literature Credit(s): 3
- M 234 - Higher Mathematics for K-8 Teachers Credit(s): 3 \*

**First Semester Total: 15\*\***

#### Spring Semester

- COMX 217CF - Oral Interpretation of Literature Credit(s): 3
- EDU 231 - Literature and Literacy for Children Credit(s): 3
- HEE 202 - Instructional Strategies in Elementary Physical Education Credit(s): 3 \*
- HSTA 102B - American History II Credit(s): 4
- THTR 239CF - Creative Drama and Dance for K-8 Credit(s): 3

**Spring Semester Total: 16\*\***

**Second Year Total: 31**

**Total Credits: 68**

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\* Students must apply to the School of Education during their final semester at FVCC, September 15th when finishing fall semester and February 15th when finishing spring semester.



## 2015-2016

### Associate of Arts Degree

#### Suggested course of study for a transfer to The University of Montana - Western:

##### First Year

- ARTZ 105F - Visual Language-Drawing Credit(s): 3
- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CAPP 106 - Short Courses: Computer Applications  
Credit(s): 1 \* <sup>1</sup>
- CAPP 131 - Basic MS Office Credit(s): 2 <sup>1</sup>
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- EDEC 135 - Language and Literature for Young Children  
Credit(s): 2 \* <sup>2</sup>
- EDU 201 - Introduction to Education with Field Experience  
Credit(s): 3
- M 132M - Number and Operations for K-8 Teachers  
Credit(s): 3 \*
- M 133M - Geometry and Geometric Measurement for K-8  
Teachers Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3 <sup>2</sup>

**First Year Total: 30**

##### Second Year

- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*  
**OR**
- PHSX 126NL - General Science: Physical Science  
Credit(s): 5 \*
  
- EDU 270 - Instructional Technology Credit(s): 3
- GEO 101NL - Introduction to Physical Geology Credit(s): 4
- GPHY 121GA - Human Geography Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
  
- HSTA 101B - American History I Credit(s): 4  
**OR**
- HSTA 102B - American History II Credit(s): 4
  
- M 234 - Higher Mathematics for K-8 Teachers Credit(s): 3 \* <sup>3</sup>
- PSCI 210B - Introduction to American Government Credit(s): 3
- THTR 101FH - Introduction to Theatre Credit(s): 3
  
- Global Issues (G) Requirement Credit(s): 3  
**OR**
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 30-34**

**Total Credits: 60-64**

<sup>1</sup> UM-Western requires a computer competency exam. Having the skills from these courses should prepare the student for this competency exam.

<sup>2</sup> Any literature course plus EDEC 135\* will fulfill the UM-Western literature requirement.

<sup>3</sup> Take only if mathematics is the desired area of concentration.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Education: Elementary Transfer

### Advisors:

Marlyn James  
BSS 123  
(406) 756-3869  
mjames@fvcc.edu

Laura VanDeKop  
RH 144  
(406) 756-3998  
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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change.  
Students should see their advisor to explore other possibilities not  
specifically listed in the program.*

# Education: Secondary Transfer

2015-2016

## Transfer to all Montana Colleges and Universities

In Montana, those desiring to become secondary teachers (grades 5-12) must pursue a bachelor degree in a certifiable major, often with a minor, from a four-year college or university. Most four-year institutions in Montana offer secondary teaching degrees but offerings for majors and minors vary from school to school, so students must carefully select their courses. Secondary education students can complete two years of study at FVCC in most majors. There are a few courses, listed below, that all secondary education majors must typically take before entrance into a teacher education program their junior year. Additionally, by seeking an associate's degree from FVCC, the general education core for all MUS colleges and universities will have been completed before transfer.

### I. Required for most Secondary Education Majors

- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3

### II. Major/Minor Requirements in a Certifiable Area

See transfer school catalog and consult with your advisor for specific course suggestions. Suggested course outlines are shown below for common secondary teaching majors.

### III. For elementary and secondary education

The University of Great Falls offers the following education courses at FVCC on a two-year rotation:

- EDU 211 - Multicultural Education Credit(s): 3
- EDU 284 - Cognitive Psychology Applied to Learning Credit(s): 4
- EDU 315 - Assessment of Learning Credit(s): 3
- EDU 338 - Teaching Reading in the Content Area Credit(s): 2
- EDU 430 - Secondary Teaching Procedures Credit(s): 3
- EDU 462 - Pre-professional Integrative Experience (Elementary School) Credit(s): 2
- EDU 472 - Pre-professional Integrative Experience (Middle School) Credit(s): 2
- EDU 482 - Pre-professional Integrative Experience (High School) Credit(s): 2
- EDU 489 - Elementary/Secondary Education Internship Seminar Credit(s): 2
- EDU 490 - Secondary Internship Credit(s): 10

Most UGF curriculums are more than the 60 credits required for the AA or AS degree and few students could complete this curriculum in two years. This is because UGF is generous in accepting FVCC credits and has additional general education credits. Students who wish to earn a UGF degree must meet UGF residency requirements (number of UGF credits delivered to our campus or online) in the major. Please see the UGF catalog for details. Students applying only for licensure in a major should contact the UGF Education Department in Great Falls to determine if a specialized plan of study is appropriate.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

## Secondary Education - Art

### Associate of Arts Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year

- ARTZ 105F - Visual Language-Drawing Credit(s): 3
  - ARTZ 106F - Visual Language-2-D Foundations Credit(s): 3
  - ARTZ 108F - Visual Language-3-D Foundations Credit(s): 3 \*
  - ARTZ 231F - Ceramics I Credit(s): 3
  - ARTZ 232 - Ceramics Studio: Personal Techniques Credit(s): 3 \*
  - EDU 201 - Introduction to Education with Field Experience Credit(s): 3
  - WRIT 101W - College Writing I Credit(s): 3 \*
- OR**
- Communications (C) Requirement Credit(s): 3
  - Humanities (H) Requirement Credit(s): 3
- OR**
- Social Sciences (A or B) Requirement Credit(s): 3
  - WRIT 201W - College Writing II Credit(s): 3 \*
- OR**
- Mathematics (M) Requirement Credit(s): 3
  - Natural Science (NL or N) Requirement Credit(s): 3
  - Social Sciences (A) Requirement Credit(s): 3

##### First Year Total: 33

##### Second Year

- ARTH 200FGH - Art of World Civilization I Credit(s): 3
  - ARTH 201FGH - Art of World Civilization II Credit(s): 3
  - ARTZ 212 - Drawing Studio: Personal Style Credit(s): 3 \*
  - ARTZ 221F - Painting I Credit(s): 3
  - ARTZ 222 - Painting Studio: Composition Credit(s): 3 \*
  - HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- OR**
- NASX 105G - Introduction to Native American Studies Credit(s): 3
  - NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
- OR**
- Communications (C) Requirement Credit(s): 3
  - Natural Science (NL) Requirement Credit(s): 3
  - Social Sciences (B) Requirement Credit(s): 3

##### Second Year Total: 30

##### Total Credits: 63 \*\*

\*Indicates prerequisite and/or corequisite needed. Check course description.

**\*\* If time allows, students could take EDU 221\* and EDU 270.**

##### Advisor:

David Regan  
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For general information, contact the Admissions Office:  
(406) 756-3847.

## 2015-2016

### Secondary Education - Biology

#### Associate of Science Degree

##### Suggested course of study for a transfer to The University of Montana - Missoula:

###### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
  
- M 162M - Applied Calculus Credit(s): 5 \*
- OR**
- M 171M - Calculus I Credit(s): 5 \*
  
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- OR**
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
  
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**First Year Total: 34**

###### Second Year

- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*
- BIOB 272N - Genetics and Evolution Credit(s): 4 \*
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- PHSX 205NL - College Physics I Credit(s): 5 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Communications (C) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 33**

**Total Credits: 67 \*\***

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*If time allows, students could take EDU 270.

###### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

## Education: Secondary Transfer

### Secondary Education -

### Broadfield Social Studies/History

#### Associate of Arts Degree

##### Suggested course of study for a transfer to the University of Great Falls:

###### First Year

- CAPP 120 - Introduction to Computers Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- GPHY 141GA - Geography of World Regions Credit(s): 3
- HSTA 101B - American History I Credit(s): 4
- HSTR 101B - Western Civilization I Credit(s): 4
- M 115M - Probability and Linear Mathematics Credit(s): 3 \* 5
- PSCI 210B - Introduction to American Government Credit(s): 3 3
- PSYX 100A - Introduction to Psychology Credit(s): 4 1
  
- RLST 100G - Introduction to the Study of Religion Credit(s): 3
- OR**
- RLST 220G - Interpretations of American Religion Credit(s): 3
  
- SOCI 101A - Introduction to Sociology Credit(s): 3 1
- WRIT 101W - College Writing I Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Natural Science (NL) Requirement Credit(s): 3 2

**First Year Total: 45**

###### Second Year

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- EDSP 204 - Introduction to Teaching Exceptional Learners Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3 4
- HSTA 102B - American History II Credit(s): 4
- HSTA 255B - Montana History Credit(s): 3
- HSTR 102B - Western Civilization II Credit(s): 4
  
- LIT 110H - Introduction to Literature Credit(s): 3
- OR**
- PHL 101H - Introduction to Philosophy: Reason and Reality Credit(s): 3
  
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
- PSYX 230A - Developmental Psychology Credit(s): 3 \* 3
- SOCI 201 - Social Problems Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \* 5
- WRIT 201W - College Writing II Credit(s): 3 \*
- Natural Science (NL or N) Requirement Credit(s): 3

**Second Year Total: 42**

**Total Credits: 87**

<sup>1</sup> Only one of these is required for a History only major.

<sup>2</sup> GPHY 111NL is not an acceptable Lab Science course for UGF.

<sup>3</sup> Not required for a History only major.

<sup>4</sup> Students should take this class near the end of their AA completion.

<sup>5</sup> Students can take M 145M\* and a 100-level UGF Statistics course instead.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Education: Secondary Transfer

2015-2016

### Secondary Education - Business and Information Technology Education

#### Associate of Arts Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year

- BGEN 235 - Business Law Credit(s): 4
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
  
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- OR**
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
  
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 35**

##### Second Year

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BMIS 270 - MIS Foundations for Business Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Fine Arts (F) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits 65 \*\***

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*If time allows, students could take EDU 270.

#### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

### Secondary Education - English

#### Associate of Arts Degree

#### Suggested course of study for a transfer to the University of Great Falls:

##### First Year

- CAPP 120 - Introduction to Computers Credit(s): 3
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- CRWR 110F - Beginning Fiction Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
  
- LIT 110H - Introduction to Literature Credit(s): 3
- LIT 211H - American Literature II Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \* 4
- WRIT 101W - College Writing I Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3 <sup>1</sup>
- Natural Science (NL) Requirement Credit(s): 3 <sup>2</sup>

**First Year Total: 30**

##### Second Year

- EDSP 204 - Introduction to Teaching Exceptional Learners Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3 <sup>3</sup>
- LIT 224H - British Literature II Credit(s): 3
  
- PSYX 100A - Introduction to Psychology Credit(s): 4
- OR**
- SOCI 101A - Introduction to Sociology Credit(s): 3
  
- RLST 100G - Introduction to the Study of Religion Credit(s): 3
- OR**
- RLST 220G - Interpretations of American Religion Credit(s): 3
  
- STAT 216M - Introduction to Statistics Credit(s): 4 \* 4
- WRIT 201W - College Writing II Credit(s): 3 \*
- Electives Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3-4

**Second Year Total: 31-33**

**Total Credits: 61-63**

<sup>1</sup> CRWR 110F and an additional Fine Arts course are both required.

<sup>2</sup> GPHY 111NL is not an acceptable Lab Science for UGF.

<sup>3</sup> Students should take this class near the end of their AA completion.

<sup>4</sup> Students could take M 145M\* and a 100-level UGF Statistics course instead.

\*Indicates prerequisite and/or corequisite needed. Check course description.

Most UGF curriculums are more than the 60 credits required for the AA or AS degree and few students could complete this curriculum in two years. This is because UGF is generous in accepting FVCC credits and has additional general education credits. Students who wish to earn a UGF degree must meet UGF residency requirements (number of UGF credits delivered to our campus or online) in the major. Please see the UGF catalog for details. Students applying only for licensure in a major should contact the UGF Education Department in Great Falls to determine if a specialized plan of study is appropriate.

## 2015-2016

## Education: Secondary Transfer

### Associate of Arts Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year

- CRWR 211 - Introduction Poetry Workshop Credit(s): 3
- OR**
- LIT 120H - Poetry Credit(s): 3
  
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- LIT 210H - American Literature I Credit(s): 3
- LIT 211H - American Literature II Credit(s): 3
- LIT 223H - British Literature I Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Fine Arts (F) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3-4

**First Year Total: 30-31**

##### Second Year

- EDU 270 - Instructional Technology Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- LIT 224H - British Literature II Credit(s): 3
- LIT 225H - Shakespeare: Tragedy and Comedy Credit(s): 3
- LIT 226H - Shakespeare: History and Tragedy Credit(s): 3
  
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- OR**
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
  
- Electives Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 60-61**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

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(406) 756-3847

*The information on all transfer programs is subject to change.  
Students should see their advisor to explore other possibilities not specifically listed in the program.*



## Education: Secondary Transfer

2015-2016

### Secondary Education - General Science Broadfield

#### Associate of Science Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- M 162M - Applied Calculus Credit(s): 5 \*
- PHSX 205NL - College Physics I Credit(s): 5 \*
  
- PSYX 100A - Introduction to Psychology Credit(s): 4 <sup>1</sup>
- OR**
- Social Sciences (A) Requirement Credit(s): 3-4
  
- WRIT 101W - College Writing I Credit(s): 3
- Humanities (H) Requirements Credit(s): 3

**First Year Total: 33-34**

##### Second Year

- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3
- PHSX 207NL - College Physics II Credit(s): 5 \*
- PSYX 230A - Developmental Psychology Credit(s): 3 \* <sup>1</sup>
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (B) Requirement Credit(s): 3-4

**Second Year Total: 31-32**

**Total Credits 64-66 \*\***

<sup>1</sup> Students could take both PSYX 100A and PSYX 230A\* here to satisfy the three-credit Life Span course at MSU or take any SS(A) here, not take PSYX 230A\* and postpone the Life Span course until they are at MSU.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*As time and course load permit, students could also take BIOB 275N\* General Genetics to fulfill an additional MSU requirement.

#### Advisor:

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(406) 756-3847.

The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program

#### Associate of Science Degree

#### Suggested course of study for a transfer to Montana State University - Northern:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOO 105NL - Introduction to Botany Credit(s): 3
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- PHSX 205NL - College Physics I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3

**First Year Total: 37**

##### Second Year

- EDU 270 - Instructional Technology Credit(s): 3
- GEO 100NL - Introduction to Earth Science Credit(s): 4
- GEO 101NL - Introduction to Physical Geology Credit(s): 4
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- PHSX 207NL - College Physics II Credit(s): 5 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- PSYX 230A - Developmental Psychology Credit(s): 3 \*
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 35**

**Total Credits: 72**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

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#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer



## 2015-2016

## Education: Secondary Transfer

### Associate of Science Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
  
- M 162M - Applied Calculus Credit(s): 5 \*
- OR**
- M 171M - Calculus I Credit(s): 5 \*
  
- PHSX 205NL - College Physics I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**First Year Total: 44**

##### Second Year

- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*
- BIOB 272N - Genetics and Evolution Credit(s): 4 \*
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- GEO 101NL - Introduction to Physical Geology Credit(s): 4
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
  
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- OR**
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
  
- PHSX 207NL - College Physics II Credit(s): 5 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Communications (C) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 38**

**Total Credits: 82**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## Education: Secondary Transfer

### Secondary Education - Government

#### Associate of Arts Degree

##### Suggested course of study for a transfer to The University of Montana - Missoula:

###### First Year

- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
  
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- OR**
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
  
- PSCI 210B - Introduction to American Government Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 3
- Fine Arts (F) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 30**

###### Second Year

- PSCI 230 - Introduction to International Relations Credit(s): 3
- PSCI 250B - Introduction to Political Theory Credit(s): 3
  
- Communications (C) Requirement Credit(s): 3
- OR**
- Humanities (H) Requirement Credit(s): 3
- OR**
- Social Sciences (A or B) Requirement Credit(s): 3
  
- Electives Credit(s): 9
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 60**

\*Indicates prerequisite and/or corequisite needed. Check course description.

###### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

## 2015-2016

### Secondary Education - History

#### Associate of Arts Degree

##### Suggested course of study for a transfer to The University of Montana - Missoula:

###### First Year

- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- HSTA 101B - American History I Credit(s): 4
- HSTA 102B - American History II Credit(s): 4
  
- HSTR 101B - Western Civilization I Credit(s): 4
- OR**
- HSTR 102B - Western Civilization II Credit(s): 4
  
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- OR**
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
  
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 30**

###### Second Year

- EDU 270 - Instructional Technology Credit(s): 3
- HSTA 255B - Montana History Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- Communications (C) Requirement Credit(s): 3
- Fine Arts (F) Requirement Credit(s): 3 <sup>1</sup>
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Electives Credit(s): 6

**Second Year Total: 31**

**Total Credits: 61**

<sup>1</sup> An art history course is preferred for one of these requirements.

\*Indicates prerequisite and/or corequisite needed. Check course description.

###### Advisor:

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*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

*Secondary Education - Mathematics***Associate of Science Degree****Suggested course of study for transfer to the University of Great Falls:****First Year**

- CAPP 120 - Introduction to Computers Credit(s): 3
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- LIT 110H - Introduction to Literature Credit(s): 3
- M 171M - Calculus I Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
  
- PSYX 100A - Introduction to Psychology Credit(s): 4
- OR**
- SOCI 101A - Introduction to Sociology Credit(s): 3
  
- WRIT 101W - College Writing I Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3-4 <sup>1</sup>

**First Year Total: 34-36****Second Year**

- EDSP 204 - Introduction to Teaching Exceptional Learners Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3 <sup>2</sup>
- M 221M - Introduction to Linear Algebra Credit(s): 4 \*
- M 225M - Introduction to Discrete Mathematics Credit(s): 4 \*
  
- RLST 100G - Introduction to the Study of Religion Credit(s): 3
- OR**
- RLST 220G - Interpretations of American Religion Credit(s): 3
  
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WRIT 201W - College Writing II Credit(s): 3 \*
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30****Total Credits: 64-66**<sup>1</sup> GPHY 111NL is not an acceptable Lab Science for UGF.<sup>2</sup> Students should take this class near the end of their AS completion.

\* Indicates prerequisite and/or corequisite needed. Check course description.

**Advisors:**Dr. Don Hickethier, RH 172, (406) 756-3361,  
dhicketh@fvcc.eduDr. Molly Maxwell, RH 171, (406) 756-3354,  
mmaxwell@fvcc.eduFor general information, contact the Admissions Office:  
(406) 756-3847.*The information on all transfer programs is subject to change.  
Students should see their advisor to explore other possibilities not specifically listed in the program.***Transfer Notes for Associate of Science Degree Students**

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## Education: Secondary Transfer

2015-2016

### Secondary Education - Social Science Broadfield

#### Associate of Arts Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman:

##### First Year

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- HSTR 101B - Western Civilization I Credit(s): 4
- HSTR 102B - Western Civilization II Credit(s): 4
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 33**

##### Second Year

- ANTY 101A - Anthropology and the Human Experience Credit(s): 3
- OR**
- GPHY 121GA - Human Geography Credit(s): 3
- OR**
- GPHY 141GA - Geography of World Regions Credit(s): 3
- OR**
- SOCI 101A - Introduction to Sociology Credit(s): 3
  
- EDU 270 - Instructional Technology Credit(s): 3
- HSTA 101B - American History I Credit(s): 4
- HSTA 102B - American History II Credit(s): 4
- PSCI 210B - Introduction to American Government Credit(s): 3
- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Natural Science (NL or N) Requirement Credit(s): 3
  
- PSCI Elective Credit(s): 3
- OR**
- PSYX Elective Credit(s): 3
- OR**
- SOCI Elective Credit(s): 3

**Second Year Total: 32**

**Total Credits: 65**

\*Indicates prerequisite and/or corequisite needed. Check course description

##### .Advisor:

Robert Bauer  
BSS 124  
(406) 756-3860  
rbauer@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

#### Associate of Arts Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year

- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3
  
- HSTR 101B - Western Civilization I Credit(s): 4
- OR**
- HSTR 102B - Western Civilization II Credit(s): 4
  
- PSCI 210B - Introduction to American Government Credit(s): 3
- PSCI 250B - Introduction to Political Theory Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3-4
- Social Sciences Elective Credit(s): 3<sup>1</sup>

**First Year Total: 32-33**

##### Second Year

- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- HSTA 101B - American History I Credit(s): 4
- HSTA 102B - American History II Credit(s): 4
- HSTA 255B - Montana History Credit(s): 3
  
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- OR**
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
  
- PSCI 230 - Introduction to International Relations Credit(s): 3
- Fine Arts (F) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3

**Second Year Total: 35**

**Total Credits: 67-68**

<sup>1</sup> As time and course load allow, students could take more Social Sciences electives from the following disciplines: Economics, Geography, Psychology or Sociology. Some could be left to take as upper division courses at UM.

\*Indicates prerequisite and/or corequisite needed. Check course description.

##### Advisor:

Robert Bauer  
BSS 124  
(406) 756-3860  
rbauer@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change.  
Students should see their advisor to explore other possibilities not specifically listed in the program.*

## 2015-2016

Both the CAS and AAS provide students the training necessary to enter the field of electrical wiring in residential, commercial, and industrial construction sites. Upon successful completion of the first two semesters, the student has met the requirements for the CAS. Successful completion of all four semesters meets the requirement for the AAS. Graduates are eligible for advanced placement into a registered apprentice position. Upon completion of this program, students will:

- Analyze, configure, troubleshoot, and assist in designing and measuring electrical and electronic circuits and systems
- Relate the National Electrical Code to wiring designs and explain how that design ensures safety
- Discuss the advantages and disadvantages of three phase and single phase systems
- Determine the proper grounding techniques to employ for various electrical devices and installations
- Communicate clearly and effectively in speaking and writing with peers, engineers, teams, and customers using appropriate technologies including audio, visual, and graphics
- Synthesize the theory and operation of transformers with single and three phase connections and alternating current machines
- Demonstrate the assembly and installation of photovoltaic systems

### Required Courses

#### First Year - Fall Semester

- ELCT 100 - Introduction to Electricity Credit(s): 3
- ELCT 110 - Basic Electricity I Credit(s): 5 \*
- ELCT 133 - Basic Wiring Credit(s): 4 \*
- ELCT 137 - Electrical Drafting Credit(s): 2
- M 114 - Extended Technical Mathematics Credit(s): 3 \*

**First Semester Total: 17**

#### Spring Semester

- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- ECP 104 - Workplace Safety Credit(s): 1
- ELCT 102 - Electrical Fundamentals II Credit(s): 4 \*
- ELCT 111 - Electric Meters and Motors Credit(s): 3
- ELCT 139 - Electric Code Study - Residential Credit(s): 3 \*
- ELCT 205 - Electrical Design and Lighting Credit(s): 3

**Second Semester Total: 17**

**CAS Total Credits: 34**

## Electrical Technology, CAS & AAS

### Second Year - Fall Semester

- ELCT 103 - Electrical Code Study/Codeology Credit(s): 3 \*
- ELCT 204 - Electrical Planning and Estimating Credit(s): 3 \*
- ELCT 210 - Advanced Current Theory Credit(s): 5 \*
- ELCT 241 - Electric Motor Controls Credit(s): 3
- ELCT 251 - Introduction to Photovoltaic Systems Credit(s): 5 \*

**First Semester Total: 19**

### Spring Semester

- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- ELCT 211 - AC Measurements Credit(s): 3 \*
- ELCT 233 - Commercial Wiring Lab Credit(s): 3 \*
- ELCT 236 - Conduit, Raceways, and Code Calculations Lab Credit(s): 3 \*
- ELCT 239 - Grounding and Bonding Fundamentals Credit(s): 3
- ELCT 247 - Medium and High Voltage Credit(s): 3

**Second Semester Total: 18**

**AAS Total Credits: 71**

### Optional Course Offering:

- ELCT 252 - Fundamentals of Grid Tied Photovoltaic Systems Credit(s): 5 \*

*\*Indicates prerequisite and/or corequisite needed. Check course description*

### Program Information

- Recognized by the Montana Department of Labor as an apprentice compliant program of study. All provisions apply only to Montana registered apprentices and registered Montana sponsors.
- Based upon successful completion of the FVCC 2-year Electrical Technology program, a maximum of 3,115 OJT training hours may be approved by the Registration Agency Program but provided the sponsor elects to grant the 3,115 OJT credit hours or a portion thereof to the apprentice based upon demonstration of skills.
- Any work hours or related instruction credit granted, which may be as many as ten courses, towards the registered apprenticeship program requirements is within the purview of the sponsor and approved by the program based upon documentation.
- For apprenticeship information, contact the Montana Department of Labor Apprentice Training Board at (406) 444-3556.

### Advisor:

Dick Frisk  
OT 116 B  
(406) 756-4383  
rfrisk@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*



# Electronics Technician, CT, CAS, AAS

2015-2016

This program is designed to give students the technical skills, as well as interpersonal skills, that will prepare them for placement into electronics technician positions. Students gain theoretical knowledge and hands-on experience with both basic and advanced electronics including circuits, controllers, and the machine to system interface. Upon completion of this program, students will:

- Analyze, configure, troubleshoot and assist in designing and measuring electrical and electronic circuits and systems;
- Read and describe the characteristics of basic circuitry and compute circuit capacity;
- Demonstrate wiring design and identify basic electrical components;
- Troubleshoot analog and digital circuits using standard and specialized test equipment;
- Program and troubleshoot PLC systems for basic system control;
- Describe how various industrial processes are coalesced using advanced PLC techniques;
- Demonstrate the use of electrical, electronic solid state, digital, and pneumatic transmitters in practical process control instrumentation; and
- Effectively communicate during problem solving and troubleshooting.

## Electronics Technician Tier I, CT

### First Year - Fall Semester

- CAPP 106 - Short Courses: Computer Applications  
Credit(s): 1 \*

**OR**

- CAPP 114 - Short Courses: MS Word Credit(s): 1

**OR**

- CAPP 116 - Short Courses: MS Excel Credit(s): 1

- ECP 104 - Workplace Safety Credit(s): 1
- ELCT 100 - Introduction to Electricity Credit(s): 3
- ELCT 110 - Basic Electricity I Credit(s): 5 \*
- ELCT 137 - Electrical Drafting Credit(s): 2
- M 114 - Extended Technical Mathematics Credit(s): 3 \*
- MCH 101 - Introduction to Manufacturing Processes  
Credit(s): 1

**First Semester Total: 16**

## Electronics Technician Tier II, CT

### Spring Semester

- BMGT 205C - Professional Business Communication  
Credit(s): 3 \*<sup>1</sup>

**OR**

- COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3

- ELCT 102 - Electrical Fundamentals II Credit(s): 4 \*
- ELCT 111 - Electric Meters and Motors Credit(s): 3
- ETEC 130 - Panel Wiring and Soldering Credit(s): 2
- PHSX 110 - Applied Physics Credit(s): 4 \*

**Second Semester Total: 16**

**CAS Total Credits: 22**

### Note:

Upon completion of Tiers I and II, a student has met the requirements for a CAS, but may not receive both a Tier II Certificate and a CAS.

### Advisor:

Pete Wade  
OT 108  
(406) 756-3968  
pwade@fvcc.edu

## Electronics Technician Tier III, CT

### Second Year - Fall Semester

- ELCT 210 - Advanced Current Theory Credit(s): 5 \*
- ELCT 250 - Programmable Logic Controllers Credit(s): 4
- ETEC 245 - Digital Electronics Credit(s): 4 \*
- ETEC 250 - Solid State Electronics I Credit(s): 4 \*

**First Semester Total: 17**

## Electronics Technician Tier IV, CT

### Spring Semester

- BMGT 205C - Professional Business Communication  
Credit(s): 3 \*<sup>1</sup>

**OR**

- COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3

- ELCT 211 - AC Measurements Credit(s): 3 \*
- ETEC 280 - Advanced Electronics Credit(s): 4 \*
- ETEC 285 - Advanced Programmable Controllers Credit(s): 4 \*
- ETEC 299 - Capstone: Electronics Credit(s): 3 \*

**Second Semester Total: 17**

**AAS Total Credits: 66**

<sup>1</sup>This course may be substituted with WRIT 122, Introduction to Business Writing, which is offered at other colleges in the Montana University System.

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Note:

Upon completion of Tiers I, II, III, and IV, a student has met the requirements for an AAS degree, but may not receive both a Tier IV Certificate and an AAS degree.

### Optional Course Offerings:

- CSCI 111 - Programming with Java I Credit(s): 4
- CSCI 113 - Programming with C++ I Credit(s): 4 \*
- ELCT 252 - Fundamentals of Grid Tied Photovoltaic Systems  
Credit(s): 5 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- A minimum mathematics score of 30 for Algebra on the COMPASS/ESL test is required for entry into the program.
- A minimum score of 80 for the COMPASS/ESL.
- English/Reading and Writing tests are required for entry into the program.
- Applicants not meeting the above requirements may be admitted on an extended track to complete developmental math/communications classes before enrolling in ELCT 102\* or higher ELCT classes.

### Program Information

- Each completed Tier's courses constitute a certificate in that Tier. A student may apply for graduation in Tier I, II, III, or IV. Or, a student may apply for graduation with a Certificate of Applied Science in Electronics Technician upon completion of Tiers I and II. Alternatively, a student may apply for graduation with the AAS degree in Electronics Technician upon completion of all four Tiers.
- If BMGT 205C\* is completed in Tier II, then COMX 115C must be completed in Tier IV.
- Good mathematical skills are imperative.
- Recognized by the Montana Department of Labor as an apprentice compliant program of study.
- Includes American Red Cross First Aid/CPR Certification.

### Opportunities after Graduation

- In Flathead County, employment opportunities in electronics manufacturing have grown over 70% since 2006.
- Typical wages for electronics technicians are above average both state and nationally.



## 2015-2016

## Emergency Dispatcher, CT

The Emergency Dispatcher certificate program provides students with entry-level knowledge of the demands of a career as an emergency dispatcher. The 911 dispatcher is the first link in the 911 system. Upon completion of this program, students will:

- Understand emergency dispatcher terminology and report writing;
- Discuss stress and crisis intervention strategies;
- Describe legal responsibilities, ethics, and criminal and civil law practices as they relate to emergency dispatch; and
- Utilize computer applications.

### Required Courses

#### Fall Semester

- BMGT 205C - Professional Business Communication  
Credit(s): 3 \*
  - CAPP 106 - Short Courses: Computer Applications  
Credit(s): 1 \*
  
  - COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3
- OR**
- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
  
  - PSD 100 - Introduction to 911 Credit(s): 2
  - PSD 110 - Call Taking/Emergency Medical Dispatch  
Credit(s): 3
  - PSD 120 - Public Safety Dispatching Credit(s): 3
  - PSD 195 - Dispatch Field Experience Credit(s): 1

#### Total Credits: 16

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- The Emergency Dispatcher program is open to all high school graduates or equivalent, who meet the standards for employment in the 911 field, including good physical condition and high moral standards.
- Reading and writing skills are important.
- Students who place below College Writing I on the Compass test may need to take additional developmental courses in order to take BMGT 205C\*.

### Program Information

- Emergency Dispatcher is a one-semester certificate program offered once a year. (Possibility of twice a year if needed.)
- The program offers both classroom and lab experience as well as field experience in the 911 center.

### Opportunities after Graduation

- Students successfully completing this program have the skills and knowledge for successful employment as an emergency dispatcher in a 911 system.

### Advisor:

Kris Long, BAS, NRP  
BC 126-D  
(406) 756-3901  
klong@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

# Emergency Management, AAS

2015-2016

Emergency management leaders need experience in hazard mitigation and preparedness, along with a strong academic background in critical thinking, emergency management law and ethics, management and communication. Upon successful completion of this program, students will:

- Describe the elements of an integrated emergency management system;
- Compare the roles and responsibilities of key local, state, and federal personnel in dealing with localized emergency incident vs. disasters;
- Identify hazards and propose a strategy to resolve the problem;
- Write a mitigation plan;
- Design an emergency operations center considering the special needs of the occupants;
- Formulate and disseminate accurate news releases;
- Understand the geography and geopolitics of terrorism;
- Develop an action plan for recruiting, interviewing, training, supervising, and evaluating volunteers;
- Utilize the Montana Code Annotated to understand the specifics of Montana state law in relation to emergency management;
- Develop a mass fatality incident plan; and
- Construct an emergency action plan for their agency or community.

## Required Courses

### First Year - Fall Semester

- BMGT 235 - Management Credit(s): 3
- CAPP 131 - Basic MS Office Credit(s): 2
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- EM 100 - Principles of Risk Assessment and Management Credit(s): 3
- EM 110 - Disaster Response and Recovery Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 17**

### Spring Semester

- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*
- EM 120 - Mitigation Planning Credit(s): 3
- EM 130 - Emergency Operations Center (EOC) Management and Operations Credit(s): 3
- EM 140 - Public Communication During Emergencies Credit(s): 3
- PHL 132 - Introduction to Critical Thinking Credit(s): 3

**Second Semester Total: 16**

### Second Year - Fall Semester

- BGEN 110 - Applied Business Leadership Credit(s): 3
- BMGT 237 - Human Relations in Business Credit(s): 3
- EM 200 - Responding to Terrorism Credit(s): 3
- EM 210 - Exercise Design Credit(s): 3
- PSCI 210B - Introduction to American Government Credit(s): 3
- WRIT 121C - Introduction to Technical Writing Credit(s): 3 \*

**First Semester Total: 18**

### Spring Semester

- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
- EM 220 - Management of Volunteers Credit(s): 3
- EM 230 - Emergency Management Law and Ethics Credit(s): 3
- EM 240 - Mass Fatalities Incident Response Credit(s): 3
- EM 250 - Emergency Management Capstone Project Credit(s): 4

**Second Semester Total: 16**

**Total Credits: 67**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, contact the AmeriCorps office at (406) 756-3908.

### Opportunities after Graduation

- This fast growing field presents opportunities for individuals who are interested in employment in various capacities related to the field, including law enforcement, fire service, EMS, emergency communications operators, hospital personnel, business safety personnel, municipal government planners, security personnel, and risk managers.
- On the national level, the occupation is expected to grow faster than the average rate of all occupations.
- Graduates who are current practitioners in the public safety field will enhance their training and employability in the emergency setting.

### Advisor:

Kris Long, BAS, NRP  
BC 126-D  
(406) 756-3901  
klong@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

## 2015-2016

The Engineering transfer program at FVCC provides a full range of freshman and sophomore level classes to prepare students transferring to a wide variety of engineering programs at **Montana State University - Bozeman** and **Montana Tech of The University of Montana**. The advantages of small class size, individual attention, and a knowledgeable professional staff provide a solid foundation for transfer, allowing students to transfer with junior status. Curricula can be adjusted to meet similar requirements for other institutions.

**Montana State University - Bozeman** offers programs in bio-resources, chemical, civil, computer, construction technology, electrical, industrial, and mechanical engineering.

**Montana Tech of The University of Montana** offers programs in engineering science, environmental, general, geological, geophysical, metallurgical, mining, and petroleum engineering.

Surveying and civil engineering are closely related fields, and FVCC provides an excellent opportunity to begin pursuing both professional licenses at the same time. Contact either the surveying advisor or engineering advisor for more information.

As programs emerge and evolve, it is important to consult with an advisor to keep abreast of changes and to register for classes in the proper order.

## Engineering Transfer

### Associate of Science Degree

**Suggested course of study for fulfilling the College of Engineering Major and Core Requirements at Montana State University - Bozeman:**

#### First Year - Fall Semester

- CHMY 141NL - College Chemistry I Credit(s): 5 \* <sup>1</sup>
- EGEN 105 - Introduction to General Engineering Credit(s): 1
- M 171M - Calculus I Credit(s): 5 \* <sup>2</sup>
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \* <sup>3</sup>
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 19**

#### Spring Semester

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- M 172M - Calculus II Credit(s): 5\*<sup>2</sup>
- PHSX 222NL - Physics II (with Calculus) Credit(s): 5 \* <sup>3</sup>
- Additional Engineering Requirements: 6\*\*
- Social Science (A) Requirement Credit(s): 3

**Second Semester Total: 22**

#### Second Year-Fall Semester

- M 273M - Multivariable Calculus Credit(s): 5 \* <sup>2</sup>
- Additional Engineering Requirements: 6\*\*
- Humanities (H) Requirement Credit(s): 3
- Social Science (B) Requirement Credit(s): 3<sup>4,6</sup>

**First Semester Total: 17+**

#### Spring Semester

- M 274M - Introduction to Differential Equations Credit(s): 5 \* <sup>2</sup>
- Additional Engineering Requirements Credit(s): 8+ \*\*
- Global Issues (G) Requirement Credit(s): 3 <sup>4,5</sup>
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 19**

**Total Credits: 77**

<sup>1</sup> Not required for Computer Engineering majors, while CHMY 121NL\* is needed for Construction Engineering Majors.

<sup>2</sup> Construction Engineering Technology students should take two semesters of calculus and STAT 216M\*. Mechanical engineering technology majors need to have taken at least M 153M\*.

<sup>3</sup>Construction Engineering technology, and mechanical engineering technology majors could take PHSX 205NL\* and PHSX 207NL\* instead.

<sup>4</sup> Construction Engineering Technology students should take ECNS 101GB and ECNS 202GB for these general education categories.

<sup>5</sup>Civil Engineering students should take ECNS 202GB as their Global Issues requirement.

<sup>6</sup>Civil Engineering students should take ECNS 101GB or PSCI 210B.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*See below for additional courses.

# Engineering Transfer

2015-2016

## \*\*Additional courses for Bioengineering (MSU):

- BCH 280N - Biochemistry Credit(s): 3 \*
- BCH 281L - Biochemistry Lab Credit(s): 2 \*
- BIOM 260N - General Microbiology Credit(s): 3 \*
- BIOM 261L - General Microbiology Lab Credit(s): 2 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- EGEN 102 - Introduction to Engineering Computer Applications Credit(s): 2 \*

## \*\*Additional courses for Chemical Engineering (MSU):

- BCH 280N - Biochemistry Credit(s): 3 \*
- BCH 281L - Biochemistry Lab Credit(s): 2 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- EGEN 102 - Introduction to Engineering Computer Applications Credit(s): 2 \*

## \*\*Additional courses for Civil Engineering (MSU):

- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- OR**
- WRIT 121C - Introduction to Technical Writing Credit(s): 3
- OR**
- WRIT 201W - College Writing II Credit(s): 3 \*
  
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- EGEN 102 - Introduction to Engineering Computer Applications Credit(s): 2 \*
- EGEN 115 - Engineering Graphics Credit(s): 3 <sup>1</sup>
- EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 \*
- EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 \*
- EGEN 205 - Mechanics of Materials Credit(s): 4 \*
- GEO 101NL - Introduction to Physical Geology Credit(s): 4
- SRVY 241 - Introduction to Surveying for Land Surveyors I Credit(s): 5 \*

## \*\*Additional courses for Computer Engineering (MSU):

- CSCI 111 - Programming with Java I Credit(s): 4
- CSCI 113 - Programming with C++ I Credit(s): 4 \*
- EELE 101 - Introduction to Electrical Fundamentals Credit(s): 2 \*

<sup>1</sup> DDSN 135 is recommended if not covered in this class.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## \*\*Additional courses for Construction Engineering Technology (MSU):

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- DDSN 114 - Introduction to CAD Credit(s): 3 \*
- EGEN 115 - Engineering Graphics Credit(s): 3 <sup>1</sup>
- EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 \*
- EGEN 205 - Mechanics of Materials Credit(s): 4 \*
- GEO 101NL - Introduction to Physical Geology Credit(s): 4
- SRVY 241 - Introduction to Surveying for Land Surveyors I Credit(s): 5 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*

## \*\*Additional courses for Electrical Engineering (MSU):

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- CSCI 113 - Programming with C++ I Credit(s): 4 \*
- EELE 101 - Introduction to Electrical Fundamentals Credit(s): 2 \*
- EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 \*
- PHSX 224 - Physics III Credit(s): 4 \*

## \*\*Additional courses for Industrial and Management Engineering (MSU):

- CSCI 111 - Programming with Java I Credit(s): 4
- CSCI 113 - Programming with C++ I Credit(s): 4 \*
- EELE 101 - Introduction to Electrical Fundamentals Credit(s): 2 \*
- EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 \*
- EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 \*
- EGEN 205 - Mechanics of Materials Credit(s): 4 \*
- M 221M - Introduction to Linear Algebra Credit(s): 4 \*

## \*\*Additional courses for Mechanical Engineering (MSU):

- EGEN 102 - Introduction to Engineering Computer Applications Credit(s): 2 \*
- EGEN 115 - Engineering Graphics Credit(s): 3<sup>1</sup>
- EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 \*
- EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 \*
- EGEN 205 - Mechanics of Materials Credit(s): 4 \*

## \*\*Additional courses for Mechanical Engineering Technology (MSU):

- EGEN 102 - Introduction to Engineering Computer Applications Credit(s): 2 \*
- EGEN 115 - Engineering Graphics Credit(s): 3<sup>1</sup>
- EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 \*
- EGEN 205 - Mechanics of Materials Credit(s): 4 \*

<sup>1</sup> DDSN 135 is recommended if not covered in this class.

# 2015-2016

## Associate of Science Degree

### Suggested course of study for fulfilling the School of Mines and Engineering Major and Core Requirements at Montana Tech of The University of Montana:

#### First Year - Fall Semester

- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- EGEN 105 - Introduction to General Engineering Credit(s): 1
- M 171M - Calculus I Credit(s): 5 \*
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*

**First Semester Total: 16**

#### Spring Semester

- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- PHSX 222NL - Physics II (with Calculus) Credit(s): 5 \*
- Additional Engineering Requirements: 4\*\*

**Second Semester Total: 19**

#### Summer Semester

- ECNS 201B - Principles of Microeconomics Credit(s): 3
- Communications (C) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Third Semester Total: 9**

#### Second Year - Fall Semester

- EGEN 102 - Introduction to Engineering Computer Applications Credit(s): 2 \*
- EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 \*
- M 273M - Multivariable Calculus Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Additional Engineering Requirements: 3

- Humanities (H) Requirement Credit(s): 3
- OR**

- Fine Arts (F) Requirement Credit(s): 3

**First Semester Total: 20**

#### Spring Semester

- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- M 274M - Introduction to Differential Equations Credit(s): 5 \*
- Additional Engineering Requirements Credit(s): 8 \*\*

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 19**

**Total Credits: 83**

<sup>1</sup>Not required for geophysical, civil, or welding engineering options.

\* Indicates prerequisite and/or corequisite needed. Check course description.

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

# Engineering Transfer

## \*\*Additional courses for Environmental Engineering (MT Tech of The University of Montana):

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOE 172N - Introductory Ecology Credit(s): 3 \*
- BIOE 173L - Introductory Ecology Laboratory Credit(s): 1 \*
- EGEN 205 - Mechanics of Materials Credit(s): 4 \*
- GEO 101NL - Introduction to Physical Geology Credit(s): 4

## \*\*Additional courses for General Engineering (MT Tech of The University of Montana):

- EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 \*
- EGEN 205 - Mechanics of Materials Credit(s): 4 \*
- GEO 101NL - Introduction to Physical Geology Credit(s): 4 <sup>2</sup>
- M 221M - Introduction to Linear Algebra Credit(s): 4 \* <sup>3</sup>

### Note:

<sup>2</sup> Only required for the Civil Engineering option.

<sup>3</sup> In the general engineering area, students who select the "no option" or mechanical engineering option should take M 221M\*, while those in the Civil Engineering or Welding Engineering options should take STAT 216M\* instead.

## \*\*Additional courses for Geophysical Engineering (MT Tech of The University of Montana):

- CSCI 113 - Programming with C++ I Credit(s): 4 \*
- EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 \*
- M 221M - Introduction to Linear Algebra Credit(s): 4 \*

## \*\*Additional courses for Mining Engineering (MT Tech of The University of Montana):

- EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 \*
- EGEN 205 - Mechanics of Materials Credit(s): 4 \*

## \*\* Additional courses for Petroleum Engineering (MT Tech of The University of Montana):

- EGEN 205 - Mechanics of Materials Credit(s): 4 \*
- GEO 101NL - Introduction to Physical Geology Credit(s): 4

## \*\* Additional courses for Electrical Engineering (MT Tech of The University of Montana):

- EELE 101 - Introduction to Electrical Fundamentals Credit(s): 2 \*
- EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 \*
- M 221M - Introduction to Linear Algebra Credit(s): 4 \*

### Advisor:

Dr. Effat Rady  
RH 107  
(406) 756-3375  
erady@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

## English Transfer

2015-2016

Students who study English pursue high school teaching careers or complete graduate-level programs to become journalists, lawyers, creative writers, business professionals, public relations and advertising specialists, or college professors. Some students also study English to gain critical insight, to enrich their lives, to improve their proficiency in the language or to express creativity. Completion of the following courses results in an associate degree and fulfills the lower division general core requirements at **The University of Montana - Missoula** and many other four-year institutions.

English majors have the following options to pursue: literature, creative writing, English linguistics, and English teaching (see Education section in this catalog).

### Associate of Arts Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year

- LIT 210H - American Literature I Credit(s): 3
- LIT 211H - American Literature II Credit(s): 3
- LIT 226H - Shakespeare: History and Tragedy Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- English Electives Credit(s): 6 <sup>1</sup>
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**First Year Total: 30**

##### Second Year

- LIT 223H - British Literature I Credit(s): 3
- LIT 224H - British Literature II Credit(s): 3
- LIT 225H - Shakespeare: Tragedy and Comedy Credit(s): 3
- Electives Credit(s): 3 \*\*
- Fine Arts (F) Requirement Credit(s): 3
  
- FRCH 101GH - Elementary French I Credit(s): 5 **and**
- FRCH 102GH - Elementary French II Credit(s): 5 \*
- OR**
- GRMN 101GH - Elementary German I Credit(s): 5 **and**
- GRMN 102GH - Elementary German II Credit(s): 5 \*
- OR**
- ITLN 101GH - Elementary Italian I Credit(s): 5 **and**
- ITLN 102GH - Elementary Italian II Credit(s): 5 \*
- OR**
- RUSS 101GH - Elementary Russian I Credit(s): 5 **and**
- RUSS 102GH - Elementary Russian II Credit(s): 5 \*
- OR**
- SPNS 101GH - Elementary Spanish I Credit(s): 5 **and**
- SPNS 102GH - Elementary Spanish II Credit(s): 5 \*
  
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 31**

**Total Credits: 61**

<sup>1</sup>Take as many English electives as recommended for your intended option.

#### \*\*Recommended electives for the Creative Writing Option:

- CRWR 110F - Beginning Fiction Credit(s): 3
- CRWR 111F - Beginning Poetry Credit(s): 3
- LIT 120H - Poetry Credit(s): 3

#### \*\*Recommended elective for the Linguistics Option:

- LING 270 - Introduction to Linguistics Credit(s): 3

#### \*\*Recommended electives for Literature Option:

- LIT 110H - Introduction to Literature Credit(s): 3
- LIT 112H - Introduction to Fiction Credit(s): 3
- LIT 206GH - European Literature of the 20th Century Credit(s): 3
- LIT 240H - Bible as Literature Credit(s): 3
- LIT 285H - Mythologies Credit(s): 3
- LIT 286GH - Comparative Mythology Credit(s): 3
- THTR 235H - Dramatic Literature Credit(s): 3

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisors:

Brian Bechtold  
AT 230  
(406) 756-3904  
bbechtol@fvcc.edu

Lowell Jaeger  
AT 231  
(406) 756-3907  
ljaeger@fvcc.edu

Carole Bergin  
AT 229  
(406) 756-3902  
cbergin@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*



## 2015-2016

(Also offered at Lincoln County Campus)

The following curriculum develops the basic skills necessary for success in the entrepreneur world. The classes provide a foundation for understanding small business entrepreneurship and how the business process works. This leads to a Certificate of Applied Science in Small Business Entrepreneurship and represents the first year of a two-year AAS degree in Small Business Management. Upon completion of this program, students will:

- Be given the basic proficiencies needed to operate a successful small business;
- Understand and be able to explain a broad overview of the basics of Small Business Entrepreneurship;
- Identify the various services provided by the S.B.A.;
- Be able to explain the various components of a business plan;
- Identify the pros and cons of various forms of business organization; and
- Discuss the start-up of a new business and outline the steps necessary to get the business open and running.

### Required Courses

#### Fall Semester

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BGEN 122 - Applied Business and Allied Health Math  
Credit(s): 4 \*
- BMGT 215 - Human Resource Management Credit(s): 3
- BMKT 225 - Marketing Credit(s): 3

**First Semester Total: 14**

#### Spring Semester

- BGEN 280 - Business Planning Credit(s): 3 \*
  - BMGT 205C - Professional Business Communication  
Credit(s): 3 \*
  - BMGT 210 - Small Business Entrepreneurship Credit(s): 3
  - BMIS 211 - Introduction to Business Decision Support  
Credit(s): 4 \*
- ECNS 201B - Principles of Microeconomics Credit(s): 3  
**OR**  
 ECNS 202GB - Principles of Macroeconomics Credit(s): 3

**Second Semester Total: 16**

**Total Credits: 30**

\* Indicates prerequisite and/or corequisite needed. Check course description.

## Entrepreneurship, CAS

### Program Information

#### Contact your advisor for Program Information.

- This program provides students with the basic proficiencies needed to operate a successful small business.
- The program will give the students a broad overview of the basics of Small Business Entrepreneurship.
- Some courses require satisfactory scores on placement exams before being admitted. See the course descriptions for details.

#### Opportunities after Graduation

- This certificate prepares students for entry-level positions in small business as an employee or management trainee. Self employment as an owner/operator of a personal business is also an option for those completing this certificate.

#### Advisors:

##### Kalispell

Connie Hitchcock  
BSS 107  
(406) 756-4329  
chitchcock@fvcc.edu

##### Libby

Chad Shilling  
Room #105  
(406) 293-2721, ext. 233  
cshillin@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

# Environmental Biology Transfer

2015-2016

Environmental Biology is a growing field as Americans see the need to clean up the environment and conserve clean water, a resource that we always assumed had an infinite supply. Studying Environmental Biology gives the student a solid understanding of the processes used in Chemistry, Biology, and Microbiology for applications in land, water, and other natural resources. This transfer program is the foundation for a four-year degree which then provides a good foundation for jobs in private environmental industries that address problems associated with disturbed environments, government jobs in environmental management and policy, or for graduate research.

## Associate of Science Degree

### Suggested course of study for a transfer to Montana State University - Bozeman:

#### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
  
- M 162M - Applied Calculus Credit(s): 5 \*
- OR**
- M 171M - Calculus I Credit(s): 5 \*
  
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Year Total: 31**

#### Second Year

- ENSC 245NL - Soils Credit(s): 4
- PHSX 205NL - College Physics I Credit(s): 5 \*
- SRVY 233 - Introduction to GIS for Natural Resource Assessment Credit(s): 4
- WRIT 201W - College Writing II Credit(s): 3
- Communications (C) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 34**

**Total Credits: 65**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

Dr. Ruth Wrightsman  
RH 132  
(406) 756-3878  
rwrightsman@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## 2015-2016

The Environmental Science program at **The University of Montana - Western** is designed to prepare students to face the challenges and diverse career opportunities that exist within the broad discipline of the environmental sciences. Career opportunities include gaining employment in consulting firms, private industry, and state or federal agencies.

Students majoring in Environmental Science at **The University of Montana - Western** must select a related area to complement their major. These related areas include, biology, geology, environmental, interpretation, wildlands management, wildlife biology, sustainable natural resource management and environmental geochemistry. The environmental interpretation option does not require calculus or physics so those students should take other science courses instead. Any student considering graduate school should take more math and PHSX 222NL\* at FVCC as electives.

### Associate of Science Degree

#### Suggested course of study for a transfer to The University of Montana - Western:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 141NL - College Chemistry I Credit(s): 5 \*<sup>1</sup>
- CHMY 143NL - College Chemistry II Credit(s): 5 \*<sup>1</sup>
  
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*<sup>2</sup>
- OR**
- M 171M - Calculus I Credit(s): 5 \*
  
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*<sup>2</sup>
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 28-30**

##### Second Year

- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Communications (C) Requirement Credit(s): 3<sup>3</sup>
- Electives Credit(s): 12 \*\*
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (A) Requirement Credit(s): 3<sup>4</sup>
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 31**

**Total Credits: 60-62**

<sup>1</sup>Not required for Environmental Interpretation option. Take BIOB 170N\*, BIOB 171L\*, and GEO 101NL instead.

<sup>2</sup>For Environmental Interpretation option only.

<sup>3</sup>Environmental Interpretation students must take COMX 111C.

<sup>4</sup>Environmental Interpretation students must take PSYX 100A.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Environmental Science Transfer

\*\*Depending on which related area you choose to pursue, the following electives may be worthwhile to take at FVCC:

- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- BIOM 260N - General Microbiology Credit(s): 3 \*
- BIOC 105NL - Introduction to Botany Credit(s): 3
- BIOC 262NL - Introduction to Entomology Credit(s): 3 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- M 221M - Introduction to Linear Algebra Credit(s): 4 \*
- M 273M - Multivariable Calculus Credit(s): 5 \*
- PHSX 222NL Physics II Credit(s): 5\*

### Advisor:

Dr. Anita Ho  
RH 177  
(406) 756-3873  
aho@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

# Environmental Studies Transfer

2015-2016

The Environmental Studies program at **The University of Montana - Missoula** seeks to provide students with the literacy, skills, and commitment needed to foster a healthy natural environment and to create a more sustainable, equitable, and peaceful society. Graduates of this program will become knowledgeable and active in environmental affairs.

Students majoring in Environmental Studies at **The University of Montana - Missoula** may pursue a focus area of Sustainability Studies - Food, Water, Energy, Business, Environmental Justice, Environmental Science, Environmental Writing and Literature, Environmental Pre-Law, or Environmental Knowledge of Native People.

## Associate of Science Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- BIOO 235NL - Rocky Mountain Flora Credit(s): 3
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- ENSC 105NL - Environmental Science Credit(s): 4
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- SOCI 101A - Introduction to Sociology Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives Credit(s): 9 \*\*
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 32**

#### Second Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- NASX 105G - Introduction to Native American Studies Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 10 \*\*
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30-31**

**Total Credits: 62-63\*\***

\* Indicates prerequisite and/or corequisite needed. Check course description.

#### \*\*Recommended electives for the following options:

##### Environmental Justice:

- ENSC 272 - Water Resources Credit(s): 4
- HSTR 284G - Environmental History Credit(s): 3
- PHL 110H - Introduction to Ethics: Problems of Good and Evil Credit(s): 3
- PSYX 264 - Fundamentals of Group Dynamics Credit(s): 3 \*
- SOCI 220GA - Race, Gender and Class Credit(s): 3

##### \*\*Environmental Knowledge of Native People

- HSTA 255B - Montana History Credit(s): 3
- HSTR 284G - Environmental History Credit(s): 3
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3

##### \*\*Environmental Pre-Law:

- HSTR 284G - Environmental History Credit(s): 3
- PHL 132 - Introduction to Critical Thinking Credit(s): 3
- PSCI 210B - Introduction to American Government Credit(s): 3
- PSCI 250B - Introduction to Political Theory Credit(s): 3

##### \*\*Environmental Science:

- BIOE 172N - Introductory Ecology Credit(s): 3
- BIOE 173L - Introductory Ecology Laboratory Credit(s): 1 \*
- BIOO 105NL - Introduction to Botany Credit(s): 3
- ENSC 245NL - Soils Credit(s): 4
- GEO 101NL - Introduction to Physical Geology Credit(s): 4

##### \*\*Environmental Writing and Literature:

- HSTR 284G - Environmental History Credit(s): 3
- JRNL 272C - News Writing and Reporting Credit(s): 3
- LIT 210H - American Literature I Credit(s): 3
- LIT 211H - American Literature II Credit(s): 3
- LIT 213H - Montana Literature Credit(s): 3

##### \*\*Sustainable Business:

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BGEN 235 - Business Law Credit(s): 4
- BMIS 270 - MIS Foundations for Business Credit(s): 3

##### \*\*Sustainable Energy:

- BIOO 105NL - Introduction to Botany Credit(s): 3
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- ENSC 245NL - Soils Credit(s): 4
- ENSC 272 - Water Resources Credit(s): 4
- GEO 101NL - Introduction to Physical Geology Credit(s): 4

##### \*\*Sustainable Food and Farming:

- BIOO 105NL - Introduction to Botany Credit(s): 3
- ENSC 245NL - Soils Credit(s): 4
- ENSC 272 - Water Resources Credit(s): 4
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- SFBS 146 - Introduction to Sustainable Food and Bioenergy Systems Credit(s): 3

##### \*\*Sustaining Water Resources and Watersheds:

- BIOE 172N - Introductory Ecology Credit(s): 3
- BIOE 173L - Introductory Ecology Laboratory Credit(s): 1 \*
- ENSC 245NL - Soils Credit(s): 4
- ENSC 272 - Water Resources Credit(s): 4

##### Advisor:

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(406) 756-3873  
aho@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## 2015-2016

This certificate program is designed to provide a solid foundation in theory, design, and function of firearms. This certificate will prepare the student for an entry-level position in the firearms industry or provide a building block toward owning a business as a gunsmith. This program contains both lecture and significant hands-on training designed to instill an understanding of the design and function of today's firearms. Practical application of knowledge in a safe and professional manner is stressed. Emphasis is placed upon the completion of several gunsmith projects from blueprints and schematics using a combination of both hand and machine tools. The student will acquire the basic knowledge to get started customizing guns. This program provides a clear understanding of firearms function, enabling graduates to assist with design or tolerance issues in a manufacturing environment. Students who complete the program leave with a collection of specialty tools for the repair or customization of firearms. Upon completion of this program, students will:

- Use precision measuring tools such as Micrometers, calipers, indicators and various specialized gauges as they apply to firearms;
- Operate manual lathe and vertical milling machines, including common work holding set-ups to perform gunsmithing services or custom work;
- Prepare metal to a desired finished state;
- Diagnose and troubleshoot a variety of firearms along with the knowledge base of how to correct malfunctions, restoring the firearm to safe and reliable condition;
- Recognize and understand the operation of various firearms systems; and
- Understand firearms accuracy and the many variables that affect it.

### Required Courses

#### Fall Semester\*\*

- FT 100 - Introduction to Firearms Credit(s): 1 \*
- FT 111 - Firearms Theory I Credit(s): 3 \*
- FT 120 - Bench Metal Techniques Credit(s): 3 \*
- FT 131 - Firearms Repair I Credit(s): 3 \*
- MCH 132 - Introduction to Engine Lathes Credit(s): 4 \*

**First Semester Total: 14**

#### Spring Semester

- FT 112 - Firearms Theory II Credit(s): 3 \*
- FT 125 - Machine Tools for the Gunsmith Credit(s): 4 \*
- FT 132 - Firearms Repair II Credit(s): 3 \*
- FT 140 - Precision Rifle Building Credit(s): 3 \*

**Second Semester Total: 13**

**Total Credits: 27**

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*This program will run in the evenings from 5:45 - 8:45 p.m. FT 100, Introduction to Firearms, is mandatory and will be held the first three days of the semester.

## Firearms Technologies

### Admission Guidelines

- Applicants must have the ability to own and possess firearms.
- Prior to acceptance into the program, applicants must submit to and pass a background check to prove their eligibility to own and possess firearms.
- Application Deadline: August 1.

### Program Information

- Loaded firearms are not permitted on campus.
- Students are expected to know and adhere to all firearms safety protocols. See Program Information website.
- Working knowledge of blueprint reading and precision measuring is recommended prior to enrolling.

### Additional Costs

- Students are expected to provide firearms and tools. See details on Program Information website.

### Opportunities after Graduation

- Firearms technology employment opportunities following graduation vary from self-employment to working for established firearms manufacturers. The growth of the firearms industry indicates an increase in the need for people skilled in the operation, modification, repair and manufacture of firearms. Employment opportunities may be enhanced by combining training in firearms technology with advanced machining training.

### Advisor(s):

Pete Wade  
OT 108  
(406) 756-3968.  
rwade@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*



## Forensic Science Transfer

2015-2016

Forensic Science applies science to civil and criminal proceedings. A profession working in a crime lab and/or processing evidence at crime scenes is one aspect of forensic science. A Bachelor of Science degree in a science discipline is required to apply for work in a crime lab. In Montana, **The University of Montana - Missoula** offers a degree in Forensic Chemistry, with students having work study and internship options with the State of Montana Crime Laboratory in Missoula. **The University of Great Falls** offers degrees at their Great Falls location in Forensic Science, Forensic Biology, and Forensic Chemistry. They are also connected with internship opportunities for students. Eastern Washington University also offers a Forensic Chemistry degree with connections to the State of Washington Crime Lab(s). Students who wish to work in either the toxicology or controlled substances or chemistry sections of a crime lab will need a Bachelor of Science degree in Chemistry or Forensic Chemistry. Students who wish to work in the serology or DNA section of a crime lab will need a Biology or Forensic Biology degree.

### Associate of Science Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- M 171M - Calculus I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 17**

##### Spring Semester

- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- CJUS 121A - Introduction to Criminal Justice Credit(s): 3
- M 172M - Calculus II Credit(s): 5 \* 1,2
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*

**Second Semester Total: 18**

##### Summer Semester

- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Third Semester Total: 9**

##### Second Year - Fall Semester

- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- CHMY 280NL - Forensic Science I Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- PHSX 205NL - College Physics I Credit(s): 5 \* 1,2

**First Semester Total: 17**

##### Spring Semester

- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- CHMY 282NL - Forensic Science II Credit(s): 4 \*
- PHSX 207NL - College Physics II Credit(s): 5 \* 1,2

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 17**

**Total Credits: 78**

<sup>1</sup> Forensic Biology to UGF: substitute BIOB 272N\* and BIOM 250NL\* for M 172M\* and the Physics courses.

<sup>2</sup> Forensic Science to UGF: substitute CJUS 200 and CJUS 231\* and STAT 216M\* for M 172M\* and the Physics courses.

\*Indicates prerequisite and/or corequisite needed. Check course description.

##### Advisors:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.



## 2015-2016

Students who intend to seek a career in Forestry can complete most of the first two pre-professional years of study at FVCC to ready themselves for the junior year at **The University of Montana - Missoula**. UM's College of Forestry and Conservation prepares graduates for professions as forest and land managers who deal with production of forest-based goods, recreation, timber, water, range, and wildlife issues.

Natural Resources Conservation and Management classes at FVCC emphasize interaction with practicing professionals, and students have ample opportunity to observe field management situations. Most courses have strong field trip components.

There is an increasing emphasis on the understanding and use of high technology such as Global Positioning Systems (GPS) and Geographic Information Systems (GIS). Students planning to enter this program should attain a sound high school level background in English, social studies, mathematics, biology, and other sciences. Those lacking such proficiencies should plan for additional preparation before taking the Required Courses. Close consultation with a Forestry or Natural Resources advisor is necessary and students are urged to solicit the advisor's help at all times.

### Associate of Science Degree

**Suggested course of study for a transfer to The University of Montana - Missoula for students majoring in Forestry:**

#### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CAPP 116 - Short Courses: MS Excel Credit(s): 1
- M 152M - Precalculus Algebra Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**First Semester Total: 17**

#### Spring Semester

- ECNS 201B - Principles of Microeconomics Credit(s): 3
- ENSC 245NL - Soils Credit(s): 4
- M 153M - Precalculus Trigonometry Credit(s): 4 \*
- WILD 270N - Wildlife Habitat and Conservation Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3

**Second Semester Total: 17**

#### Second Year - Fall Semester

- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- SRVY 233 - Introduction to GIS for Natural Resource Assessment Credit(s): 4
- STAT 216M - Introduction to Statistics Credit(s): 4 \*

**First Semester Total: 15**

## Forestry Transfer

### Spring Semester

- FORS 230 - Forest Fire Management Credit(s): 3
- FORS 232 - Forest Insects and Diseases Credit(s): 3 \*
- FORS 251 - Photogrammetry and Remote Sensing Credit(s): 3
- WRIT 121C - Introduction to Technical Writing Credit(s): 3 \*

- Humanities (H) Requirement Credit(s): 3
- OR**

- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 15**

**Total Credits: 64 \*\***

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*If time permits, to further broaden their educational experience, students may consider taking the following courses:

- BIOC 235NL - Rocky Mountain Flora Credit(s): 3
- ENSC 272 - Water Resources Credit(s): 4
- M 162M - Applied Calculus Credit(s): 5 \*
- PHSX 205NL - College Physics I Credit(s): 5 <sup>1</sup> \*
- SRVY 245 - GPS Mapping Credit(s): 2 \*

<sup>1</sup>If pursuing the Applied Forest Operations and Applied Restoration of Wildland Restoration Options.

### Advisors:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

# Geography Transfer

2015-2016

Geography provides a broad perspective on the Earth and its land, water, air and biological systems as it is inhabited and transformed by humans. The interconnectedness and interactions of the physical environment and human systems create a diversity of regions and places. Geographers broadly study the physical Earth as well as the relationships between humans and their environment through the various historical, cultural, social, economic and political structures of populations. Beyond human or cultural geography and physical geography are many areas of specialty within the field, including climatology, geomorphology, GIS and remote sensing, land-use planning and management, community development and demography. Students at FVCC can take the majority of the courses needed for the first two years of a geography bachelor's degree at **The University of Montana - Missoula** and **Montana State University - Bozeman**.

Students at FVCC are encouraged to consult the particular requirements of the transfer school in order to prepare most efficiently for a bachelor's degree in geography.

## Associate of Science Degree

### Suggested course of study for a transfer to Montana State University - Bozeman:

#### First Year

- GEO 101NL - Introduction to Physical Geology Credit(s): 4
- GPHY 111NL - Introduction to Physical Geography Credit(s): 4
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives Credit(s): 3
- Electives Credit(s): 3 \*\*
- Electives Credit(s): 3 \*\*
- Electives Credit(s): 3 \*\*

- Mathematics (M) Requirement Credit(s): 3
- OR**

- Natural Science (NL or N) Requirement Credit(s): 3

**First Year Total: 29**

#### Second Year

- FRCH 101GH - Elementary French I Credit(s): 5 **and**
  - FRCH 102GH - Elementary French II Credit(s): 5 \*
- OR**
- ITLN 101GH - Elementary Italian I Credit(s): 5 **and**
  - ITLN 102GH - Elementary Italian II Credit(s): 5 \*
- OR**
- GRMN 101GH - Elementary German I Credit(s): 5 **and**
  - GRMN 102GH - Elementary German II Credit(s): 5 \*
- OR**
- RUSS 101GH - Elementary Russian I Credit(s): 5 **and**
  - RUSS 102GH - Elementary Russian II Credit(s): 5 \*
- OR**
- SPNS 101GH - Elementary Spanish I Credit(s): 5 **and**
  - SPNS 102GH - Elementary Spanish II Credit(s): 5 \*
- 
- GPHY 121GA - Human Geography Credit(s): 3
  - GPHY 141GA - Geography of World Regions Credit(s): 3
  - STAT 216M - Introduction to Statistics Credit(s): 4 \*
  - Communications (C) Requirement Credit(s): 3
  - Electives Credit(s): 3

- Mathematics (M) Requirement Credit(s): 3
- OR**
- Natural Science (NL or N) Requirement Credit(s): 3
- 
- Social Sciences (B) Requirement Credit(s): 3

#### Second Year Total: 32

**Total Credits: 61**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### \*\*Recommended electives for the Human Geography Emphasis:

- ECNS 101GB - Economic Way of Thinking Credit(s): 3
- PSCI 210B - Introduction to American Government Credit(s): 3
- SOCI 101A - Introduction to Sociology Credit(s): 3

#### \*\*Recommended electives for the Physical Geography Emphasis:

- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- ENSC 245NL - Soils Credit(s): 4

**Associate of Science Degree****Suggested course of study for a transfer to The University of Montana-Missoula****First Year**

- GPHY 111NL - Introduction to Physical Geography Credit(s): 4
- GPHY 141GA - Geography of World Regions Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 3
- Electives Credit(s): 3-4<sup>3</sup>
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 29-32****Second Year**

- GPHY 121GA - Human Geography Credit(s): 3
- Elective Credit(s): 15
  
- Humanities (H)  
**OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Natural Science (NL) Requirement Credit(s): 3-5<sup>2</sup>
- Natural Science (NL or N) Requirement Credit(s): 3-5<sup>2</sup>
- Social Sciences (B) Requirement Credit(s): 3<sup>4</sup>

**Second Year Total: 30-34****Total Credits: 60-66**

The University of Montana options are Physical Geography, Cartography and GIS, Community and Environmental Planning, and General Geography without option.

<sup>1</sup>M 162M\* is required for the Physical Geography option as well as a sequential pair of science classes as noted next.

<sup>2</sup>Physical Geography majors have a choice of CHMY 121NL\* and CHMY 123NL\* **OR** BIOO 105NL, BIOE 172N\* and BIOE 173L\* **OR** PHSX 205NL\* and PHSX 207NL\*.

<sup>3</sup>Cartography and GIS students should take CSCI 111.

<sup>4</sup>Community and Environmental option should take PSCI 250B as a humanities requirement or as an elective.

\*Indicates prerequisite and/or corequisite needed. Check course description.

**Advisor:**

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*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

**Transfer Notes for Associate of Science Degree Students**

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

# Geology Transfer

2015-2016

Geology and the geosciences are inherently interdisciplinary fields that draw on the knowledge and techniques of other natural sciences, such as biology, chemistry, mathematics and physics, unified by a common desire to understand the underlying processes that formed and continue to shape the Earth. Questions of how mountains, rivers and oceans formed, where economically valuable materials are concentrated, and why continents drift or earthquakes occur fall within this study. Rocks, minerals and fossils are identified and analyzed in the context of Earth history, and the contributions of water, atmosphere and climate as erosive forces, and volcanism and plate tectonics as constructive forces are also examined. Geologists may specialize in mineral and oil extraction, groundwater resources, geophysics, natural hazards, construction, paleontology and environmental impacts and employ a variety of field, lab and modeling techniques. Students at FVCC can take all of the courses needed for the first two years of a geoscience bachelors degree at **The University of Montana - Missoula** and **Montana State University - Bozeman**.

## Associate of Science Degree

### Suggested course of study for a transfer to Montana State University - Bozeman:

#### First Year

- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- GEO 101NL - Introduction to Physical Geology Credit(s): 4
- M 171M - Calculus I Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3

**First Year Total: 33**

#### Second Year

- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- GPHY 111NL - Introduction to Physical Geography Credit(s): 4
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*
- PHSX 222NL - Physics II (with Calculus) Credit(s): 5 \*
- Humanities (H) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 31**

**Total Credits: 64**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Associate of Science Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- GEO 101NL - Introduction to Physical Geology Credit(s): 4
- M 171M - Calculus I Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*<sup>1</sup>

- PHSX 205NL - College Physics I Credit(s): 5 \*
- OR**

- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*

- WRIT 101W - College Writing I Credit(s): 3 \*

**First Year Total: 32**

#### Second Year

- CSCI 111 - Programming with Java I Credit(s): 4
- GEO 130N - Geology of Northwest Montana Credit(s): 3

- PHSX 207NL - College Physics II Credit(s): 5 \*
- OR**

- PHSX 222NL - Physics II (with Calculus) Credit(s): 5 \*

- Communications (C) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 62\*\***

The above curriculum is for the Bachelor of Science in Geosciences.

Deviations for the Interdisciplinary options are:

<sup>1</sup>M 172M\* is not required. May take elective credits instead.

<sup>2</sup>One semester of physics is required. Take BIOB 160NL or BIOB 170N\* instead of the second physics course.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*If course load allows, take PTRM 201 if seeking the Interdisciplinary option.

#### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

## 2015-2016

The curriculum prepares the student for an entry-level position in the jewelry industry and/or for further study and testing in the field of jewelry manufacturing. This program prepares the student with a wide variety of skills including basic fabrication, casting, stone setting, repair and design within a CAD/CAM environment. Upon completion of this program, students will:

- Have a working knowledge of:
  - anticlastic and synclastic forging;
  - forming jewelry on the hydraulic press and die making for the press;
  - various forms of casting;
  - a variety of surface treatments;
  - a variety of stone setting techniques; and
  - CAD/CAM jewelry design and production;
- Successfully design and fabricate jewelry;
- Perform basic jewelry repair;
- Assemble a professional quality portfolio. Write an artist statement, biographical statement and resume. Photograph student work;
- Have basic drawing skills; and
- Have basic math and communications skills.

### Required Courses

#### First Year - Fall Semester

- ARTJ 210F - Jewelry and Metalsmithing I Credit(s): 3
- ARTJ 220 - Forging and Smithing I Credit(s): 3 \*
- ARTJ 231 - 3D Jewelry Design and Modeling I Credit(s): 4
- ARTZ 105F - Visual Language-Drawing Credit(s): 3
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- M 111 - Technical Mathematics Credit(s): 3 \*

**First Semester Total: 19**

#### Spring Semester

- ARTJ 211F - Jewelry and Metalsmithing II Credit(s): 3 \*
- ARTJ 232 - 3D Jewelry Design and Modeling II Credit(s): 4 \*
- ARTJ 240 - Jewelry Design and Rendering I Credit(s): 3 \*
- ARTJ 250 - Wax Modeling and Casting I Credit(s): 3
- ARTJ 260 - Stone Setting I Credit(s): 3 \*
- GDSN 274 - Portfolio Presentation Credit(s): 1 \*

**Second Semester Total: 17**

## Goldsmithing and Jewelry Arts, AAS

#### Second Year - Fall Semester

- ARTJ 212F - Jewelry and Metalsmithing III Credit(s): 3 \*
- ARTJ 221 - Forging and Smithing II Credit(s): 3 \*
- ARTJ 233 - 3D Jewelry Design and Modeling III Credit(s): 4 \*
- ARTJ 261 - Stone Setting II Credit(s): 3 \*
- ARTJ 270 - Surface Embellishments I Credit(s): 3 \*

**First Semester Total: 16**

#### Spring Semester

- ARTJ 213 - Jewelry and Metalsmithing IV Credit(s): 3 \*
- ARTJ 234 - 3D Jewelry Design and Modeling IV Credit(s): 4 \*
- ARTJ 251 - Wax Modeling and Casting II Credit(s): 3 \*
- ARTJ 271 - Surface Embellishments II Credit(s): 3 \*
- ARTJ 280 - Jewelry Repair I Credit(s): 3 \*

**Second Semester Total: 16**

**Total Credits: 68**

#### Program Information

- All courses within this degree program must be taken for a letter grade.
- If you are considering transfer to a four-year college, some of the courses will transfer as electives only. See your advisor.

#### Opportunities after Graduation

- This program will prepare students for entry-level positions in the jewelry industry and/or further study in the field of jewelry manufacturing.
- Graduates will be prepared to work in a wide range of entry-level positions, from custom shops to large scale manufacturing.

#### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

# Graphic Design, AAS

2015-2016

Specific skills learned in this program include graphic design methodologies, such as the design process, output production, and presentation. Photography, design, and drawing are core competencies. The students will learn Adobe software: Photoshop, Illustrator, InDesign, and Dreamweaver. In addition, students will spend the second year learning 3D animation and modeling using Maya. Students will also have a solid foundation in creating marketing plans, writing contracts, and will have market awareness. Upon completion of this program, students will:

- Demonstrate skills, techniques, and manipulation of tools and equipment necessary for studio graphic design that meet industry standards;
- Interpret and incorporate formal elements of design into digital images;
- Know and understand the impact of graphic communications on society;
- Design and develop professional websites; and
- Create a digital and print portfolio reflecting knowledge, techniques, and creativity gained during the student's course of study.

## Required Courses

### First Year - Fall Semester

- ARTZ 106F - Visual Language-2-D Foundations Credit(s): 3
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- OR**
- WRIT 101W - College Writing I Credit(s): 3 \*
- GDSN 130 - Typography Credit(s): 3 \*
- GDSN 148 - Digital Illustration I Credit(s): 3
- GDSN 250 - Graphic Design I Credit(s): 3

**First Semester Total: 15**

### Spring Semester

- ARTZ 108F - Visual Language-3-D Foundations Credit(s): 3 \*
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- OR**
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- GDSN 248 - Digital Illustration II Credit(s): 3 \*
- M 095- - Intermediate Algebra Credit(s): 4 \*
- PHOT 154F - Exploring Digital Photography Credit(s): 3 \*

**Second Semester Total: 16**

### Second Year - Fall Semester

- ARTZ 105F - Visual Language-Drawing Credit(s): 3
- BMKT 225 - Marketing Credit(s): 3
- GDSN 149 - Digital Imaging I Credit(s): 3
- GDSN 200 - Introduction to Desktop Publishing Credit(s): 3 \*
- MART 231 - Interactive Web I Credit(s): 4

**First Semester Total: 16**

### Spring Semester

- GDSN 230 - Video Editing Credit(s): 4
- GDSN 247 - Digital Portfolio Preparation Credit(s): 4 \*
- GDSN 249 - Digital Imaging II Credit(s): 3 \*
- ITS 298 - Internship/Cooperative Education Credit(s): 3 \*
- OR**
- Approved Elective Credit(s): 3
- MART 232 - Interactive Web II Credit(s): 4 \*

**Second Semester Total: 18**

**Total Credits: 65**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- Students in this program are expected to have a basic level of computer proficiency.

### Program Information

- An internship is optional for this program. Students must apply for internship placements for this program the prior semester. See Internships for more information and application deadlines.

### Additional Costs

- Students may choose to purchase the software and a drawing tablet for personal use at home to complete assignments.

### Opportunities after Graduation

- This program prepares students for a global market where they can start work in the industry or a freelance business offering services in illustration, graphic design, web design, 3D animation, or digital imaging.

### Advisor:

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BSS 105  
(406) 756-3861  
drauscher@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.



## 2015-2016

Specific skills learned in this program include graphic design methodologies, such as the design process, output production and presentation. The certificate prepares students to gain competence with the industry standards for graphic design. The students will learn the Adobe software: Photoshop, Illustrator, InDesign, and Dreamweaver. Color, resolution, input and output, production process, photography, and drawing are core competencies. Upon completion of the certificate, the student may find a job as a production artist, illustrator, graphic designer, or photographer or web designer. Upon completion of this program, students will:

- Demonstrate skills, techniques, and manipulation of tools and equipment necessary for studio graphic design that meet industry standards;
- Interpret and incorporate formal elements of design into digital images;
- Know and understand the impact of graphic communications on society;
- Design and develop professional websites; and
- Compile a digital and print portfolio reflecting knowledge, techniques and creativity gained during the student's course of study.

### Required Courses

#### Fall Semester

- ARTZ 105F - Visual Language-Drawing Credit(s): 3
- GDSN 148 - Digital Illustration I Credit(s): 3
- GDSN 149 - Digital Imaging I Credit(s): 3
- GDSN 250 - Graphic Design I Credit(s): 3
- MART 231 - Interactive Web I Credit(s): 4

**First Semester Total: 16**

#### Spring Semester

- GDSN 200 - Introduction to Desktop Publishing Credit(s): 3 \*
- GDSN 247 - Digital Portfolio Preparation Credit(s): 4 \*
- GDSN 248 - Digital Illustration II Credit(s): 3 \*
- GDSN 249 - Digital Imaging II Credit(s): 3 \*
- M 095~ - Intermediate Algebra Credit(s): 4 \*

**Second Semester Total: 17**

**Total Credits: 33**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Graphic Design, CAS

### Admission Guidelines

- Students in this program are expected to have a basic level of computer proficiency.

### Opportunities after Graduation

- This program prepares students for a global market where they can find work as a production artist, illustrator, graphic designer, web designer, or in digital imaging.

### Advisor:

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*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

# Health and Human Performance Transfer

2015-2016

The undergraduate curriculum in health and human performance at **The University of Montana - Missoula** prepares graduates to be competent entry-level professionals in health and human performance-related occupations or candidates for advanced study in related disciplines. Programs of study at **The University of Montana - Missoula** include athletic training, exercise science, and health studies. Getting accepted into the Athletic Training Education Program is very competitive.

At **Montana State University - Bozeman** the Department of Health and Human Development administers a variety of curricula that prepare students for various careers. Students may pursue a bachelor's degree in Health and Human Development with options in Community Health and Exercise Science, Family and Consumer Sciences, Food and Nutrition and Health Enhancement. Like **The University of Montana - Missoula**, graduates from **Montana State University - Bozeman** should possess the knowledge and skills to qualify for state or national certification in their specialized field of study.

## Associate of Science Degree

**Suggested course of study for a transfer to Montana State University - Bozeman in the Community Health major:**

### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- SOCI 101A - Introduction to Sociology Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 31**

### Second Year

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- PSYX 150 - Drugs and Society Credit(s): 3
- WRIT 201W - College Writing II Credit(s): 3 \*
- Global Issues (G) Requirement Credit(s): 3

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 61**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Associate of Science Degree

**Suggested course of study for a transfer to The University of Montana - Missoula in Athletic Training or Exercise Science:**

### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- KIN 201 - Basic Exercise Prescription Credit(s): 3 \*
- M 153M - Precalculus Trigonometry Credit(s): 4 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Year Total: 33**

### Summer Semester

- Humanities (H) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Summer Semester Total: 6**

### Second Year

- AHAT 210 - Prevention and Care of Athletic Injuries Credit(s): 3 \*<sup>1</sup>
- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*<sup>1</sup>
- OR**
- NUTR 221N - Basic Human Nutrition Credit(s): 3<sup>3</sup>
- HEE 220 - Introduction to Physical Education Credit(s): 3
- PHSX 205NL - College Physics I Credit(s): 5 \*
- PHSX 207NL - College Physics II Credit(s): 5 \*
- Global Issues (G) Requirement Credit(s): 3

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 30 - 34**

**Total Credits 69 - 73**

<sup>1</sup> If pursuing Athletic Training.

<sup>2</sup> If pursuing Exercise Science.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## 2015-2016

### Associate of Science Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman in Food and Nutrition (Dietetics and Nutrition Science options):

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4 <sup>1</sup>
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \* <sup>1</sup>
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \* <sup>1</sup>
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
  
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- OR**
- M 162M - Applied Calculus Credit(s): 5 \* <sup>4</sup>
  
- PSYX 100A - Introduction to Psychology Credit(s): 4 <sup>3</sup>
- SOCI 101A - Introduction to Sociology Credit(s): 3 <sup>3</sup>
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3<sup>2</sup>

**First Year Total: 38-40**

##### Second Year

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \* <sup>5,6</sup>
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \* <sup>5,6</sup>
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- NUTR 221N - Basic Human Nutrition Credit(s): 3 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 34**

**Total Credits: 72-74 \*\***

<sup>1</sup> Both are required for Nutrition Science, take BIOB 160NL for Dietetics.

<sup>2</sup> Nutrition Science students can take any Social Sciences (B) course.

<sup>3</sup> Both are required for Dietetics, any Social Sciences (A) course is fine for the Nutrition Science option.

<sup>4</sup> Required for the Nutrition Science option.

<sup>5</sup> Not required for Dietetics option.

<sup>6</sup> Dietetics students should take ACTG 201, BCH 280N\* and BCH 281L\* if time permits.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*Nutrition Science majors should also take the following additional courses if time permits:

- BCH 280N - Biochemistry Credit(s): 3 \*
- BCH 281L - Biochemistry Lab Credit(s): 2 \*
- PHSX 205NL - College Physics I Credit(s): 5 \*
- PHSX 207NL - College Physics II Credit(s): 5 \*

See advisor for recommendations on fulfilling these requirements.

## Health and Human Performance Transfer

### Associate of Science Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman in Health and Human Performance:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- M 162M - Applied Calculus Credit(s): 5 \* <sup>1</sup>
- PSYX 100A - Introduction to Psychology Credit(s): 4
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 33**

##### Second Year

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- PHSX 205NL - College Physics I Credit(s): 5 \*
- PHSX 207NL - College Physics II Credit(s): 5 \*
- Communications (C) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 33**

**Total Credits: 66**

For those students planning on a PE/Health Education major:

<sup>1</sup> Take M 115M\* instead of M 162M\*.

<sup>2</sup> Take EDU 201, PSYX 150 and PSYX 230A\* instead.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Associate of Science Degree

### Suggested course of study for a transfer to The University of Montana - Missoula in Community Health or Health Enhancement:

#### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- HEE 220 - Introduction to Physical Education Credit(s): 3
- HTH 110 - Personal Health and Wellness Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Year Total: 32**

#### Second Year

- AHAT 210 - Prevention and Care of Athletic Injuries Credit(s): 3 \*<sup>2</sup>
- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- KIN 201 - Basic Exercise Prescription Credit(s): 3 \*
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- WRIT 201W - College Writing II Credit(s): 3 \*

- Global Issues (G) Requirement Credit(s): 3<sup>1</sup>

**OR**

- NASX 105G - Introduction to Native American Studies Credit(s): 3<sup>2</sup>

**OR**

- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3<sup>2</sup>

- Humanities (H) Requirement Credit(s): 3

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 32-35**

**Total Credits: 64-67**

<sup>1</sup> If pursuing the Community Health option.

<sup>2</sup> If pursuing the Health Enhancement (PE/Health Education Option)

\* Indicates prerequisite and/or corequisite needed. Check course description.

Students pursuing the Health Enhancement Education option should take the following if course load allows:

- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- EDU 221 - Educational Psychology and Measurement Credit(s): 3 \*
- EDU 270 - Instructional Technology Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- PSYX 230A - Developmental Psychology Credit(s): 3 \*

Students in either option could take BIOE 172N\* if time permits or take a 2 credit 300-level ecology course at U of M to satisfy an additional science requirement.

#### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer

## 2015-2016

Health Care Informatics is an emerging specialization in health care that joins the disciplines of information technology, communications, health care and business. Students in this program will find themselves key players in the constructive planning for the digital hospital of the near future. Learn to bridge the gap between those professionals entrusted to provide clinical care and those who manage the complex information systems required to operate today's health care system.

This program is for:

- Health care professionals who want to develop IT skills to move into health informatics.
- Health information professionals who want to gain expertise in health informatics.
- Information technology (IT) professionals who want to move into health informatics.
- Motivated individuals who are seeking a career that combines expertise in health care, IT and business.

This program is in partnership with **Montana Tech of The University of Montana's** Bachelor's degree and is the first undergraduate program in Health Care Informatics in the United States.

### Associate of Science Degree

#### Suggested course of study for a transfer to Montana Tech of The University of Montana:

##### First Year

- AHMS 105 - Health Care Delivery Credit(s): 3
- AHMS 144 - Medical Terminology Credit(s): 3
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- CAPP 131 - Basic MS Office Credit(s): 2
- CAPP 158 - MS Access Credit(s): 3
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- ITS 210 - Network Operating System-Desktop Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*
- Global Issues (G) Requirement Credit(s): 3

**First Year Total: 34**

## Health Care Informatics Transfer

### Second Year

- AHMS 108 - Health Data Content Structure Credit(s): 3 \*
- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- BMIS 270 - MIS Foundations for Business Credit(s): 3
- CAPP 156 - MS Excel Credit(s): 3
- SOCI 101A - Introduction to Sociology Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Humanities (H) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 33**

**Total Credits: 67\*\***

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*If time permits, students may consider taking courses in computer science program and economics as well as sit for the HIT exam. Additionally students may consider taking online HCI courses through **Montana Tech of The University of Montana**.

### Advisor:

Brenda Rudolph  
BSS 106  
(406) 756-3858  
brudolph@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer

# Health Care Office Management, AAS

2015-2016

(Also offered at Lincoln County Campus)

The duties of the health care office manager can vary greatly depending on the type, size and structure of the medical practice. The health care office manager must be knowledgeable in all aspects of medical office operations including billing, coding, collections, appointment scheduling and medical records maintenance. A successful office manager is efficient, organized, resourceful, and possesses strong verbal and written communication and interpersonal skills, as well as the ability to make good decisions. Upon completion of this program, students will:

- Understand medical terminology;
- Possess knowledge of the human anatomy;
- Use interpersonal skills necessary to connect with coworkers and customers;
- Understand all aspects of a medical office including coding, scheduling, billing and EHR; and
- Demonstrate leadership skills.

## Required Courses

### First Year - Fall Semester

- AHMS 100 - Math Applications for Allied Health Professionals Credit(s): 3 \*

OR

- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*

- AHMS 105 - Health Care Delivery Credit(s): 3
- AHMS 127 - Medical Document Formatting Credit(s): 2 \*
- AHMS 144 - Medical Terminology Credit(s): 3
- BIOH 104N - Basic Human Biology Credit(s): 3
- BIOH 105L - Basic Human Biology Laboratory Credit(s): 1 \*

**First Semester Total: 15-16**

### Spring Semester

- AH 117 - Medical Setting Customer Care and Privacy Credit(s): 1
- AH 230 - Electronic Health Records Credit(s): 3
- AHMS 108 - Health Data Content Structure Credit(s): 3 \*
- AHMS 210 - Basic Medical Coding Credit(s): 3 \*
- AHMS 220 - Medical Office Procedures Credit(s): 4 \*

- BGEN 110 - Applied Business Leadership Credit(s): 3

OR

- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3

**Second Semester Total: 17**

### Second Year - Fall Semester

- ACTG 101 - Accounting Procedures I Credit(s): 4
- AHMS 175 - Medical Law and Ethics Credit(s): 3
- AHMS 208 - Health Care Statistics Credit(s): 3 \*
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4
- CAPP 158 - MS Access Credit(s): 3

**First Semester Total: 17**

### Spring Semester

- AHMS 252 - Computerized Medical Billing Credit(s): 2
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMGT 235 - Management Credit(s): 3
- BMIS 270 - MIS Foundations for Business Credit(s): 3
- CAPP 156 - MS Excel Credit(s): 3
- Electives Credit(s): 3

**Second Semester Total: 17**

**Total Credits: 66-67**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- Also recommended: Microsoft Office User Specialist (MOUS) Certification (Word, Excel).
- An internship is an option for this program.
- Students must apply for placements for this program the prior semester. See Internships for more information and application deadlines.
- Some classes may only be offered online.

### Opportunities after Graduation

- The Montana Department of Labor and Industry projected that employment in the medical office professions would grow by 16.9% from 2008-2018. This is much higher than the 11% growth rate projected for all occupations. The aging of the population will continue to drive employment increases in all occupations related to health care.

### Advisors:

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This certificate has been developed in response to an estimated need for 10,000 new Health Information Technology (HIT) professionals to assist in the transition of the nation's health information management from paper-based systems to electronic medical record applications. It is designed to target professionals who are already working in a health-related or technology field. Upon completion of this program, students will:

- Work with data flows across HIT systems;
- Migrate data to an electronic health record;
- Evaluate Electronic Health Record (EHR) systems to select the EHR most appropriate to an organization and clinical setting;
- Apply regulatory policies to ensure safety of data; and
- Design and implement a plan to install a health IT system.

### Track 1: Information Technology

This certificate is designed for students who have already completed a degree in Health Information or related area or worked in a related field.

#### Track 1 Certificate: Information Technology Option

- AH 120 - Configuring Electronic Health Records Credit(s): 3 \*
- AH 140 - Installation and Maintenance of Health IT Systems Credit(s): 3 \*
- AHMS 108 - Health Data Content Structure Credit(s): 3 \*
- AHMS 280 - Overview of Health Informatics Systems Credit(s): 4 \*
- CAPP 116 - Short Courses: MS Excel Credit(s): 1
- CAPP 118 - Short Courses: MS Access Credit(s): 1
- CS 140 - Introduction to Information and Computer Science Credit(s): 3 \*

**Total Credits: 18**

\* Indicates prerequisite and/or corequisite needed. Check course description.

### Track 2: Health Care

This certificate is designed for students who have already completed a degree in Information Technology or a related field or worked in a related field.

#### Track 2 Certificate: Health Care Option

- AH 120 - Configuring Electronic Health Records Credit(s): 3 \*
- AH 140 - Installation and Maintenance of Health IT Systems Credit(s): 3 \*
- AH 260 - Practice and Information Management and Redesign Credit(s): 3 \*
- AHMS 108 - Health Data Content Structure Credit(s): 3 \*
- AHMS 144 - Medical Terminology Credit(s): 3
- AHMS 280 - Overview of Health Informatics Systems Credit(s): 4 \*

**Total Credits: 19**

\* Indicates prerequisite and/or corequisite needed. Check course description.

#### Admission Guidelines

- All applicants must be admitted to FVCC and comply with the elements under either Track 1: Information Technology or Track 2: Health Care.

#### Track 1: Information Technology Option

- Recently completed (within the past three years) Associate Degree in Health Care Office Management, Medical Office Management, Health Information Management, Medical Assistant, or allied health related field.  
OR
- Related field work experience with consent of program director. Provide proof of relevant work experience in the form of a resume and at least two professional, work-related references.

#### Track 2: Health Care Option

- Recently completed (within the past 3 years) Associate Degree in Computer Science, Network Technology, Information Technology, or related field.  
OR
- Related field work experience with consent of program director. Provide proof of relevant work experience in the form of a resume and at least two professional, work-related references.

#### Opportunities after Graduation

- Employment of medical records and health information technicians is expected to increase by 20 percent, much faster than the average for all occupations through 2018. Employment growth will result from the increase in the number of medical tests, treatments, and procedures that will be performed. In addition, with the increasing use of electronic health records, more technicians will be needed to complete the new responsibilities associated with electronic data management.
- Job prospects should be very good. In addition to job growth, numerous openings will result from the need to replace medical record and health information technicians who retire or leave the occupation permanently. Technicians that demonstrate a strong understanding of technology and computer software will be in particularly high demand.
- Students are encouraged to complete the HIMSS Certification Exam.

#### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html)*

Designed in collaboration with local health care employers, the Health Occupations Certificate program prepares students for a variety of entry-level health care positions. Students will gain sought-after skills and work-based experience that can increase their competitiveness in the job market and prepare them for more advanced certificate and degree programs, including Health Care Office Management, Medical Assistant, Nursing, Paramedicine, Radiologic Technology, and more. Upon completion of this program, students will:

- Effectively practice basic skills required in many entry-level health care occupations;
- Demonstrate understanding of various health related career opportunities and their educational requirements; and
- Qualify for certification on some health-related academic career tracks.

## First Semester

- AH 117 - Medical Setting Customer Care and Privacy  
Credit(s): 1
- AH 155 - Essentials of Electronic Health Records Credit(s): 1
- AHMA 220 - Phlebotomy Credit(s): 3 \*  
**OR**
- ECP 130 - Emergency Medical Technician Credit(s): 5  
**OR**
- NRSRG 106 - Nursing Assistant Course Credit(s): 5
- AHMS 100 - Math Applications for Allied Health Professionals  
Credit(s): 3 \*
- AHMS 105 - Health Care Delivery Credit(s): 3
- AHMS 144 - Medical Terminology Credit(s): 3
- HTH 101 - Opportunities in the Health Professions Credit(s): 2

**Total Credits: 16-18**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Advisor:

Jori Bullemer  
(406) 756-3905  
jbullemer@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

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## Admission Guidelines

- All courses must be completed with a "C" or better to complete the certificate.
- Some courses require a universal background check and several immunizations.
- AHMA 220\*, ECP 130 and NRSRG 106\* have limited enrollment. Contact your advisor for more information.

## Program Information

- Upon successful completion of AHMA 220 \*, students are eligible to sit for the national certification exam (ASCP PBT) to become a Certified Phlebotomist.
- Upon successful completion of ECP 130, students are eligible to sit for the national written and practical exams for certification as an Emergency Medical Technician.
- Upon successful completion of NRSRG 106 \*, students are eligible to sit for the State of Montana written and practical exams for certification as a Certified Nursing Assistant.

## Opportunities after Graduation

- Students who complete the Required Courses for the certificate will find they have several options for employment in entry-level health care positions, such as ER Tech, Scribe, Phlebotomist, Certified Nurse's Assistant, Emergency Medical Technician and more.
- In addition to these entry-level skills, students will have completed some of the courses required for other health care careers, thus positioning themselves for greater opportunity for success as they continue their education.

This program will prepare students for entry-level positions within the HVAC career field. The curriculum consists of a series of theory courses provided through distance learning and relational electrical classes that provide the "hands-on" experience of applying the theory. All courses are taught to the standards of performance required for the North American Technician Excellence (NATE) certification. Graduates of the HVAC short-term certificate possess the entry-level skills required to:

- Start up and evaluate new systems for proper performance;
- Maintain existing heating, air conditioning, ventilation and/or refrigeration systems;
- Troubleshoot and repair systems that are not performing to standards; and
- Design systems for light commercial and residential application including choosing the correct equipment and the proper distribution of the conditioned air.

### Required Courses

#### Fall Semester

- COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3
- HVC 101 - HVAC Fundamentals Credit(s): 2
- HVC 130 - HVAC Electrical Credit(s): 3
- HVC 131 - Electrical and Refrigeration Lab Credit(s): 1
- HVC 140 - HVAC Systems I Credit(s): 3 \*
- M 111 - Technical Mathematics Credit(s): 3 \*

**First Semester Total: 15**

#### Spring Semester

- ECP 104 - Workplace Safety Credit(s): 1
- ELCT 111 - Electric Meters and Motors Credit(s): 3
- HVC 120 - Boiler Operator Certification Credit(s): 2
- HVC 230 - HVAC Electrical II Credit(s): 3 \*
- HVC 240 - HVAC Systems II Credit(s): 3 \*
- HVC 250 - HVAC Refrigeration I Credit(s): 3 \*

**Second Semester Total: 15**

**Total Credits: 30**

#### Optional Program Offerings:

- HVC 198 - Internship: Basic HVAC Credit(s): 1 \*
- HVC 295 - HVAC Field Experience I Credit(s): 10 \*
- HVC 298 - Internship: Advanced HVAC Credit(s): 1 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Program Information

- This program is sponsored by local Refrigeration Service Engineers Society (RSES) employers.
- An internship is optional for this program. Students must apply for internship placement for this program the prior semester. See Internships for more information and application deadlines.
- Students in the Heating, Ventilation and Air Conditioning program must earn a "C-" or better in all Heating, Ventilation and Air Conditioning (HVC) classes.

#### Certifications

- NATE Certified Curriculum
- RSES membership program
- First Aid/CPR Certification

#### Opportunities after Graduation

- Graduates may work as HVAC technicians, refrigeration specialists or facility maintenance technicians. Growth in the construction industry has led to increased demand for workers in this area. Experience may lead to management and self-employment opportunities.

#### Advisor:

Pete Wade  
OT 108  
(406) 756-3968  
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For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html)*

This program will prepare the student to enter the equipment operations career field as an entry-level operator. The program contains instruction and "hands-on" operation experience on bulldozers, backhoes, track excavators, wheel loaders, Skidsteers, motor graders, rollers, tractors, water tankers, dump trucks, and equipment transports. Students will also gain familiarity in interpreting construction grade stakes, safety procedures, and equipment maintenance as they apply to Heavy Equipment Operation. Class "A" Commercial Driver's License (CDL) training and testing are an integral part of this program. Upon completion of this program, students will:

- Operate heavy equipment (dozer, grader, loader, excavator, backhoe, Skidsteer, roller, tractor) and drive commercial trucks over 26,000 lbs. to National Center for Construction Education Research (NCCER) and Department of Transportation (DOT) standards in a job site environment;
- Maintain and service heavy equipment;
- Read and interpret grade and survey markings and stakes; and
- Apply critical thinking skills to evaluate and solve problems.

## Required Courses

### First Semester

- BMGT 205C - Professional Business Communication  
Credit(s): 3 \*
- EQOP 105 - Introduction to Heavy Equipment Operator  
Credit(s): 10
- M 111 - Technical Mathematics Credit(s): 3 \*

**First Semester Total: 16**

### Second Semester

- ECP 104 - Workplace Safety Credit(s): 1
- EQOP 110 - Heavy Equipment Operator II Credit(s): 10 \*
- WLDG 111 - Welding Theory I Practical Credit(s): 4 \*

**Second Semester Total: 15**

**Total Credits: 31**

### Optional Course Offerings:

- EQOP 215 - Heavy Equipment Operator Internship  
Credit(s): 10 \*
- WLD 121 - Welding Certification II Credit(s): 2 \*
- WLDG 122 - Welding Theory III Practical Credit(s): 4 \*
- WLDG 185 - Welding Qualification Test Preparation  
Credit(s): 2 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- Students must satisfactorily pass a physical and drug screening medical exam.

### Program Information

- An internship is optional for this program.
- Students must apply for internship placements for this program the prior semester.
- This program is sponsored by the Montana Contractors' Association and is NCCER accredited.
- The courses in this program are offered fall, spring, and summer semesters. Students may enter the program at the beginning of any semester.
- Fees for this program are higher than average. Please see the program director for more details.

### Certifications

- The National Center for Construction Education and Research Department of Transportation (DOT) Commercial Driver's License, Class "A"
- First Aid/CPR Certification

### Opportunities after Graduation

- Today's construction industry offers various job opportunities. As the population grows, so does the demand for skilled construction, excavation workers and commercial truck drivers. From highway and road construction to residential housing, from industrial development to recreational facility and park maintenance, the chances of employment for someone skilled in heavy equipment operation are good.
- The employer can be a national construction firm or a local company, a private utility company or a city, county or State Department of Transportation. Whatever the case, one can expect stable employment with respectable wages.

### Advisors:

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(406) 756-3968  
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For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html)*

History provides a broad education in an exciting area of instruction. A degree in history prepares students for local, state or federal government service, including domestic and foreign service. A history degree also provides a background for law, journalism, management, and public relations. Graduates are employed in areas that include government, research, and teaching. Students may go on to earn a master or doctoral degree. History affords students with the knowledge and perspective to be intelligent leaders in community affairs.

### Associate of Arts Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman:

##### First Year

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- HSTA 255B - Montana History Credit(s): 3
- HSTR 101B - Western Civilization I Credit(s): 4
- HSTR 102B - Western Civilization II Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 5<sup>1</sup>
- Humanities (H) Requirement Credit(s): 5<sup>1</sup>
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 30-31**

##### Second Year

- HSTA 101B - American History I Credit(s): 4
- HSTA 102B - American History II Credit(s): 4
- HSTR 284G - Environmental History Credit(s): 3
- PSCI 250B - Introduction to Political Theory Credit(s): 3
- Electives Credit(s): 6
- Fine Arts (F) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 32**

**Total Credits: 62-63**

\*Indicates prerequisite and/or corequisite needed. Check course description.

<sup>1</sup> A full year of a single foreign language is required at MSU. Take it as the Humanities general education requirement.

### Associate of Arts Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year

- HSTA 255B - Montana History Credit(s): 3
- HSTR 101B - Western Civilization I Credit(s): 4
- HSTR 102B - Western Civilization II Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Fine Arts (F) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3<sup>1</sup>
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3-4

**First Year Total: 29-30**

##### Second Year

- HSTA 101B - American History I Credit(s): 4
- HSTA 102B - American History II Credit(s): 4
- HSTR 284G - Environmental History Credit(s): 3
- PSCI 250B - Introduction to Political Theory Credit(s): 3
- Electives Credit(s): 12<sup>1</sup>
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 32**

**Total Credits: 61-62**

\*Indicates prerequisite and/or corequisite needed. Check course description.

<sup>1</sup> An Art History course is a recommended humanities course(s). In addition, History majors at The University of Montana - Missoula must take two semesters of the same foreign language and could complete that requirement here. Students who have an interest in a specific international history should discuss that interest with an advisor and choose their foreign language accordingly.

##### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*



An Associate of Arts degree with an emphasis in Human Services prepares the student for transfer to a university for a major in Human Services, Social Work or other similar programs. The student will be prepared to enter the academic rigors of upper division courses.

Opportunities in the broad spectrum of human services include employment in mental health centers, mental institutions, welfare agencies, employment services, rehabilitation, parole, aftercare, outreach, and various social service agencies both private and public. The student is encouraged to work closely with their advisor in the selection of electives to ensure the maximum level of transferability. Graduates of this transfer program will qualify for an Associate of Arts degree and will be prepared to transfer to **The University of Montana - Missoula**, majoring in social work, or to a variety of other social service oriented programs. Upon successful completion of the social work program, students will be ready to seek employment in the social services or seek entry into a graduate school of social work.

Students interested in the Bachelor of Social Work program at The University of Montana - Missoula can take nearly 80 lower division credits at FVCC but should earn at least an AA degree before transferring either physically to UM or through a distance learning program. A cohort of accepted students start the distance learning program in the fall of an odd year. The next cohort of students is slated to start fall of 2015. Students will be required to go to UM to meet with the other members of the cohort and professors once or twice each semester. The courses in this program are sequential in nature so a student must attend each semester with that cohort or drop back two years into the next cohort. Students must apply and be accepted to the UM Social Work program a semester prior to enrolling in upper division classes whether they are attending UM campus or continuing at FVCC with the UM/FVCC partnership.

At least six of the eight out-of-department courses plus the UM Social Work equivalent courses (HS 100A\*, HS 210\* and HS 250\*) must be completed or in process prior to applying. Often the senior-year internship may be completed in the Flathead Valley.

## Associate of Arts Degree

### Suggested course of study for a transfer to Salish Kootenai College:

#### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CAPP 106 - Short Courses: Computer Applications Credit(s): 1 \*
- OR**
- CAPP 131 - Basic MS Office Credit(s): 2
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- OR**
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- HS 100A - Introduction to Human Services/Social Work Credit(s): 3 \*
- LSH 261H - Introduction to the Humanities Origins and Influences I Credit(s): 4 <sup>2</sup>
- OR**
- LSH 262H - Introduction to the Humanities Origins and Influences II Credit(s): 4 <sup>2</sup>
- OR**
- PHL 101H - Introduction to Philosophy: Reason and Reality Credit(s): 3 <sup>2</sup>

- M 115M - Probability and Linear Mathematics Credit(s): 3 \* <sup>1</sup>
  - OR**
  - M 145M - Mathematics for the Liberal Arts Credit(s): 3 \*
  - NASX 105G - Introduction to Native American Studies Credit(s): 3
  - OR**
  - NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
  - PSCI 210B - Introduction to American Government Credit(s): 3
  - PSYX 100A - Introduction to Psychology Credit(s): 4
  - SOCI 101A - Introduction to Sociology Credit(s): 3
  - WRIT 101W - College Writing I Credit(s): 3 \*
- First Year Total: 33-35**

#### Second Year

- CAS 242 - Fundamentals of Substance Abuse and Addictions Credit(s): 3 \* <sup>3</sup>
  - HS 279 - Legal, Ethical, and Professional Issues in Human Services Credit(s): 3 \*
  - HSTA 102B - American History II Credit(s): 4
  - OR**
  - HSTR 102B - Western Civilization II Credit(s): 4
  - LSH 261H - Introduction to the Humanities Origins and Influences I Credit(s): 4 <sup>2</sup>
  - OR**
  - LSH 262H - Introduction to the Humanities Origins and Influences II Credit(s): 4 <sup>2</sup>
  - OR**
  - PHL 101H - Introduction to Philosophy: Reason and Reality Credit(s): 3 <sup>2</sup>
  - PSYX 230A - Developmental Psychology Credit(s): 3 \*
  - PSYX 250NA - Fundamentals of Biological Psychology Credit(s): 3 \*
  - SOCI 271 - Introduction to Family Violence Credit(s): 3
  - STAT 216M - Introduction to Statistics Credit(s): 4 \*
  - WRIT 201W - College Writing II Credit(s): 3 \*
  - Elective Credit(s): 9<sup>4</sup>
  - Fine Arts (F) Requirement Credit(s): 3
  - Physical Education Class Credit(s): 1
- Second Year Total: 42-43**

#### Total Credits: 75-78

<sup>1</sup> If a student takes M 115M\* they should take STAT 216M\* which is the recommended sequence. SKC will accept M 145M\* but then the student will need to take Statistics there.

<sup>2</sup>Take two of these three courses.

<sup>3</sup> CAS 242\* is required for all Social Work options. Those students going for the Chemical Dependency emphasis can fulfill SKC requirements with these additional courses: CAS 248\*, CAS 250\*, HS 210\*, or PSYX 240A\*.

<sup>4</sup> Electives can be chosen from the following: CJUS 121A, HS 294\* and HS 295\*, PSYX 233, PSYX 264\*, SOCI 215\*, or SOCI 260.

\*Indicates prerequisite and/or corequisite needed. Check course description.



**Associate of Arts Degree****Suggested course of study for a transfer to The University of Montana - Missoula:****First Year**

- BIOB 101NL - Discover Biology Credit(s): 4 <sup>3</sup>
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- ECNS 101GB - Economic Way of Thinking Credit(s): 3 <sup>3</sup>
- HS 100A - Introduction to Human Services/Social Work Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4 <sup>3</sup>
- SOCI 101A - Introduction to Sociology Credit(s): 3 <sup>3</sup>
- WRIT 101W - College Writing I Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3

**First Year Total: 29****Second Year**

- HS 210 - Case Management Credit(s): 2 \*
- HS 250 - Interviewing/Crisis Intervention Credit(s): 4 \*
- PSCI 210B - Introduction to American Government Credit(s): 3 <sup>3</sup>
- PSYX 230A - Developmental Psychology Credit(s): 3 \* <sup>3</sup>
- PSYX 233 - Fundamentals of Psychology of Aging Credit(s): 3 <sup>3</sup>
- SOCI 220GA - Race, Gender and Class Credit(s): 3 <sup>3</sup>
- Electives Credit(s): 6 <sup>1</sup>
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3 <sup>2</sup>

**Second Year Total: 33****Total Credits: 62**

<sup>1</sup>PSYX 264\* is a highly recommended elective that doesn't directly transfer for a specific class but will prepare the student for future classes.

<sup>2</sup>PSYX 250NA\* is preferred.

<sup>3</sup>These courses are the eight out-of-department courses.

\*Indicates prerequisite and/or corequisite needed. Check course description.

**Advisor:**

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For general information, contact the Admissions Office:  
 (406) 756-3847.

*The information on all transfer programs is subject to change.  
 Students should see their advisor to explore other possibilities not specifically listed in the program.*

The pioneers of human services training and education programs felt that the answer to the workforce shortage was not to train another group of specialized professionals but to develop an entirely new kind of worker, the generalist. Generalists are trained in a wide variety of helping interventions so that they may provide direct services to individuals or groups with a diversity of needs. These generalists also work in many different service settings integrating and coordinating the efforts of specialized professionals. Although graduates may vary from program to program in response to local needs, human service generalists are trained in basic helping skills essential to the helping relationship. These skills include:

- Interviewing;
- Observing and recording pertinent information;
- Conducting groups;
- Implementing treatment plans;
- Consulting with other workers and agencies;
- Mobilizing and utilizing community resources;
- Problem solving; and
- Advocating for clients.

### Required Courses

#### First Year - Fall Semester

- BGEN 122 - Applied Business and Allied Health Math  
Credit(s): 4 \*
- COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3
- HS 100A - Introduction to Human Services/Social Work  
Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Specialty Course Credit(s): 3

**First Semester Total: 16**

#### Spring Semester

- BMIS 211 - Introduction to Business Decision Support  
Credit(s): 4
- OR**
- CAPP 131 - Basic MS Office Credit(s): 2
- HS 279 - Legal, Ethical, and Professional Issues in Human  
Services Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 121C - Introduction to Technical Writing Credit(s): 3 \*
- Elective (only if taking CAPP 131 instead of BMIS 211)  
Credit(s): 1
- Specialty Course Credit(s): 3

**Second Semester Total: 16-17**

#### Second Year - Fall Semester

- HS 210 - Case Management Credit(s): 2 \*
- HS 250 - Interviewing/Crisis Intervention Credit(s): 4 \*
- HS 294 - Placement Seminar I Credit(s): 1 \* <sup>1</sup> and
- HS 295 - Field Experience I Credit(s): 3 \* <sup>1</sup>
- OR**
- HS 294 - Placement Seminar II Credit(s): 1 \* <sup>1</sup> and
- HS 295 - Field Experience II Credit(s): 3 \* <sup>1</sup>
- Specialty Course Credit(s): 3
- Specialty Course Credit(s): 3

**First Semester Total: 16**

#### Spring Semester

- HS 294 - Placement Seminar I Credit(s): 1 \* <sup>1</sup> and
- HS 295 - Field Experience I Credit(s): 3 \* <sup>1</sup>
- OR**
- HS 294 - Placement Seminar II Credit(s): 1 \* <sup>1</sup> and
- HS 295 - Field Experience II Credit(s): 3 \* <sup>1</sup>
- Specialty Course Credit(s): 3
- Specialty Course Credit(s): 3
- Specialty Course Credit(s): 3
- Specialty Course Credit(s): 3

**Second Semester Total: 16**

#### Specialty Courses:

Minimum of 24 credits from the following:

- CAS 140 - Addiction and Diversity Credit(s): 1
- CAS 242 - Fundamentals of Substance Abuse and Addictions  
Credit(s): 3 \*
- CAS 248 - Substance Abuse Counseling II Credit(s): 3 \*
- HS 210 - Case Management Credit(s): 2 \*
- PSYX 150 - Drugs and Society Credit(s): 3
- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- PSYX 233 - Fundamentals of Psychology of Aging Credit(s): 3
- PSYX 240A - Fundamentals of Abnormal Psychology  
Credit(s): 3 \*
- PSYX 250NA - Fundamentals of Biological Psychology  
Credit(s): 3 \*
- PSYX 260A - Fundamentals of Social Psychology Credit(s): 3 \*
- PSYX 275 - Fundamentals of Behavior Modification  
Credit(s): 3 \*
- SOCI 101A - Introduction to Sociology Credit(s): 3
- SOCI 201 - Social Problems Credit(s): 3
- SOCI 215 - Introduction to Sociology of the Family  
Credit(s): 3 \*
- SOCI 220GA - Race, Gender and Class Credit(s): 3
- SOCI 260 - Introduction to Juvenile Delinquency Credit(s): 3
- SOCI 271 - Introduction to Family Violence Credit(s): 3

**Total Credits: 64-65**

<sup>1</sup>HS 294 Placement Seminar III and HS 295 Field Experience III may be taken instead of HS 294 Placement Seminar I or HS 294 Placement Seminar II and HS 295 Field Experience I or HS 295 Field Experience II.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Program Information

- A field experience is required for this program.
- Students must apply for placements for this program the prior semester. See Internships for more information and application deadlines.

#### Opportunities after Graduation

- Graduates will have opportunities in the broad spectrum of human services employment in mental institutions, welfare agencies, employment services, rehabilitation, aftercare, outreach, and various social service agencies both private and public.

#### Advisor:

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The advanced manufacturing stackable credentials were designed with extensive input from community manufacturers to enhance the local workforce market.

The credentials begin with Tier I, which focuses on pre-employment and the cooperation, communication and critical thinking skills needed for dynamic team interactions. Tier II is the entry into the technical skills for industrial maintenance, machining and electronics technician. The Tier III program is developed to provide advanced skills in the respective areas. The Tier IV capstone semester is a project-oriented program with areas of design, re-design, fabrication and more developed experiences with equipment.

Community manufacturers will continue to provide input into these programs by participating in roundtable discussions with students regarding local workforce and internship opportunities. The manufacturers also will partner with FVCC instructors by serving on skills panels to help determine the types and levels of skills that will be required for graduates to succeed in the advanced manufacturing workforce. The stackable credentials will allow students to achieve levels of competency within one semester depending on their skill levels and academic direction.

The curriculum for these certificates was developed following the advanced manufacturing tracks designed through a TAACCCT Round 1 grant in the state of Washington and the Center of Excellence for Aerospace and Advanced Materials Manufacturing. The state of Washington has served as an instrumental resource in the development of the structure of the advanced manufacturing program at FVCC.

"Amplifying Montana's Advanced Manufacturing and Innovation Industry" Trade Adjustment Assistance Community College and Career Training Grants Program (Grant Agreement #TC-23760-12- 60-A-30) was awarded on October 1, 2012. One focus of the \$3 million grant is stackable credentials in advanced manufacturing. The grant also provided over \$350,000 in new equipment for the advanced manufacturing programs at FVCC.

### Industrial Machine Technology AAS, CAS, Machinist Technician, CT

The Industrial Machine Technology program provides instruction in the theory and operation of mills and lathes, both manual and CNC, other tools related to the machinist trade, and associated programming. Upon completion of this program, students will:

- Apply quantitative skills in conjunction with trade handbook information to solve problems;
- Effectively communicate during the problem solving process;
- Use tools and equipment to form and machine various materials in a manufacturing laboratory environment;
- Describe precision measurement and quality control procedures;
- Use various precision measuring tools including a coordinate measuring machine;
- Demonstrate advanced machining operations that are performed on CNC machines, and also Swiss CNC machines;
- Produce advanced programs using G code; and
- Demonstrate advanced techniques that are used on manual mills and lathes.

### Machinist Technician Tier I, CT

#### First Year - Fall Semester

- ECP 104 - Workplace Safety Credit(s): 1
- M 111 - Technical Mathematics Credit(s): 3 \*
- MCH 101 - Introduction to Manufacturing Processes Credit(s): 1
- MCH 120 - Blueprint Reading and Interpretation for Machining Credit(s): 3
- MCH 129 - Machine Quality Control and Precision Measurements Credit(s): 3
- MCH 132 - Introduction to Engine Lathes Credit(s): 4 \*
- MCH 134 - Introduction to Mills Credit(s): 4

#### First Semester Total: 19

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Machinist Technician Tier II, CT

#### Spring Semester

- BMGT 205C - Professional Business Communication Credit(s): 3 \* <sup>1</sup>
- OR**
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- DDSN 135 - Solidworks Credit(s): 2
- MCH 102 - Introduction to Manufacturing Materials Credit(s): 2
- MCH 122 - Introduction to CAM Credit(s): 3
- MCH 125 - Introduction to CNC Lathe Operations Credit(s): 3 \*
- MCH 127 - Introduction to CNC Mill Operations Credit(s): 3 \*
- MFGT 115 - Machine Shop Fundamentals Credit(s): 2

#### Second Semester Total: 18

### CAS Total Credits: 37

<sup>1</sup>This course may be substituted with WRIT 122, Introduction to Business Writing, which is offered at other colleges in the Montana University System.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Machinist Technician Tier III, CT

### Second Year - Fall Semester

- MCH 220 - Geometric Dimensioning and Tolerancing  
Credit(s): 3 \*
- MCH 221 - Advanced Manual Mill Credit(s): 3 \*
- MCH 222 - Advanced CNC Mill Operations Credit(s): 3 \*
- MCH 225 - Machinery's Handbook Credit(s): 3
- MCH 226 - Advanced CAD/CAM Credit(s): 4 \*

**First Semester Total: 16**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Machinist Technician Tier IV, CT

### Spring Semester

- BMGT 205C - Professional Business Communication  
Credit(s): 3 \* <sup>1</sup>
- OR**
- COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3
  
- MCH 223 - Advanced Manual Lathe Credit(s): 3 \*
- MCH 224 - Advanced CNC Lathe Operations Credit(s): 3 \*
- MCH 227 - Swiss CNC and Mill-Turn Systems Credit(s): 4 \*
- MCH 299 - Capstone: Machinist Credit(s): 3 \*

**Second Semester Total: 16**

**AAS Total Credits: 69**

<sup>1</sup>This course may be substituted with WRIT 122, Introduction to Business Writing, which is offered at other colleges in the Montana University System.

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Optional Course Offering:

- MCH 298 - Internship: Advanced Manufacturing Credit(s): 1 \*

### Admission Guidelines

- It is recommended that students complete the Tier I Machinist Technician program before entering the Tier II program.

### Program Information

- If BMGT 205C\* is completed in Tier II, then COMX 115C must be completed in Tier IV.
- Each completed Tier's courses constitute a certificate in that Tier. A student may apply for graduation in Tier I, II, III, or IV. Or, a student may apply for graduation with a Certificate of Applied Science in Industrial Machine Technology upon completion of Tiers I and II. Alternatively, a student may apply for graduation with the AAS degree in Industrial Machine Technology upon completion of all four Tiers.
- An internship is optional for this program. Students must apply for internship placements for this program the prior semester.

### Opportunities after Graduation

- CNC machinists work in machinery and machine tool manufacturing, small arms manufacturing, and machine shops. Growth in the manufacturing industry and the need to replace an aging workforce is expected to provide opportunities for graduates.
- In Montana, employment of CNC machinists is projected to increase by 44% between 2010 and 2020. Both state and national projected employment growth exceeds the rate of overall projected employment growth.

### Advisor(s):

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*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

**Industrial Maintenance**

Industrial maintenance refers to the career path of providing repair and construction support to manufacturing and other industries that include mechanical processes as part of daily operations. The industrial maintenance field has experienced and is projected to grow at above average rates over the next 10 years. An industrial mechanic employs a wide range of skills including welding, machining, carpentry, and electrical to maintain systems. Upon completion of this program, students will:

- Apply the principles of carpentry to designing, building, and finishing a project;
- Execute proper and safe use of construction and woodworking tools;
- Put into practice knowledge of safe work habits for welding and cutting of metal;
- Set-up and use welding and cutting equipment for fabrication of metal projects combining all welding positions;
- Employ manual mill and lathe systems in building designated projects;
- Identify characteristics of various motor types and proper employment of each type; and
- Employ procedures to determine the electrical materials, equipment, and application of code and regulations to support various electrical installations and rehabs for both commercial and industrial projects.

**Industrial Maintenance Tier I, CT****Fall Semester**

- ECP 104 - Workplace Safety Credit(s): 1
- ELCT 100 - Introduction to Electricity Credit(s): 3
- M 111 - Technical Mathematics Credit(s): 3 \*
- MCH 101 - Introduction to Manufacturing Processes Credit(s): 1
- MCH 120 - Blueprint Reading and Interpretation for Machining Credit(s): 3
- MCH 129 - Machine Quality Control and Precision Measurements Credit(s): 3
- MCH 132 - Introduction to Engine Lathes Credit(s): 4 \*

**Semester Total: 18**

\*Indicates prerequisite and/or corequisite needed. Check course description.

**Industrial Maintenance Tier II, CT****Spring Semester**

- BMGT 205C - Professional Business Communication Credit(s): 3 \* 1
- OR**
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- CAPP 106 - Short Courses: Computer Applications Credit(s): 1 \*
- OR**
- CAPP 114 - Short Courses: MS Word Credit(s): 1
- OR**
- CAPP 116 - Short Courses: MS Excel Credit(s): 1
- CSTN 125 - Basic Cabinetry and Furniture Making Credit(s): 3
- ELCT 111 - Electric Meters and Motors Credit(s): 3
- MFGT 115 – Machine Shop Fundamentals Credit(s): 2
- WLDG 111 - Welding Theory I Practical Credit(s): 4 \*

**Semester Total: 16**

\*Indicates prerequisite and/or corequisite needed. Check course description.

**Admission Guidelines**

- It is recommended that students complete the Industrial Maintenance Tier I program before entering the Tier II program.

**Program Information**

- Large-scale manufacturing, energy generation, petroleum refining, chemical processing, and wood products all employ mechanical systems that require maintenance. This program provides a student with the necessary instruction to meet the wide range of challenges encountered in industry by maintenance personnel.

**Opportunities after Graduation**

- Industrial maintenance (machinery mechanics) is projected to grow 15-30% over the next 10 years in Montana.
- Machinery mechanics can earn above average wages.

**Advisor:**

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For general information, contact the Admissions Office:  
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*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

The Information Technology program deals with the application of computers and networks to business problems. The program provides in-depth study of the use of computer applications, systems design and analysis, and the application of the computer as a functional tool within an organization. Upon completion of this program, students will:

- Learn to configure, use and troubleshoot desktop and network operating systems;
- Understand and apply network theory and security principles;
- Gain knowledge on computer and network hardware and apply troubleshooting techniques;
- Understand virtualization and cloud utilization; and
- Develop a sense of professionalism necessary for working successfully in Information Technology.

## Required Courses

### General Education and Support Courses:

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMGT 237 - Human Relations in Business Credit(s): 3
- CAPP 156 - MS Excel Credit(s): 3
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- OR**
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- M 095-- - Intermediate Algebra Credit(s): 4
- MART 231 - Interactive Web I Credit(s): 4

**Total Credits: 27**

### Program Courses:

#### Fall Semester

- CSCI 100 - Introduction to Programming Credit(s): 3 \*  
Offered 2015/17
- ITS 164 - Networking Fundamentals Credit(s): 3  
Offered 2015/17
- ITS 210 - Network Operating System-Desktop Credit(s): 3  
Offered 2016/2018
- ITS 212 - Network Operating System-Server Admin Credit(s): 3  
Offered 2015/17
- ITS 218 - Network Security Credit(s): 3  
Offered 2016/2018
- ITS 280 - Computer Repair and Maintenance Credit(s): 3  
Offered 2016/2018

**Fall Semester Total: 18**

#### Spring Semester

- CSCI 240 - Databases and SQL Credit(s): 3 \*  
Offered 2017/2019
- ITS 216 - Network Operating System-Directory Services Credit(s): 2 \*  
Offered 2016/18
- ITS 221 - Project Management Credit(s): 3 \*
- ITS 224 - Introduction to Linux Credit(s): 3  
Offered 2017/2019
- ITS 235 - IT Design Lab Credit(s): 2 \*  
(Offered As Needed)
- ITS 258 - Routing and Switching Credit(s): 4 \*  
Offered 2016/18
- ITS 298 - Internship/Cooperative Education Credit(s): 3 \*

**Spring Semester Total: 20**

**Total Credits: 65 \*\***

\*Indicates prerequisite and/or corequisite needed. Check course description.  
\*\*Students must adhere to all prerequisites and consult the program advisor for course sequencing.

### Admission Guidelines

- Students are expected to have fundamental knowledge of the computer. If not, students must take CAPP 131.
- Students should be aware that this program of study requires extensive mathematical application and related analytical thinking.
- Students should be aware that if they start courses in the Spring Semester, they cannot complete the program in two years.

### Program Information

- Students develop skills in computer hardware and software, cloud implementation, network management and desktop and network operating systems.
- All Required Courses within this degree program must be taken for a letter grade. Only electives may be taken on a Satisfactory/Unsatisfactory (S/U) basis.
- An internship is required for this program. Students must apply for internship placements for this program the prior semester. See Internships for more information and application deadlines.
- After completion of the program, and with additional study, students will have the knowledge to sit for the following certification exams:
  - A+ Certification
  - Network + Certification
  - CCNA (Cisco Certified Network Associate)
  - MOS (Microsoft Office Specialist) certification in Excel

### Opportunities after Graduation

In the ever growing technology industry, graduates will have opportunities for employment as computer support specialists who provide end user support, perform troubleshooting, and maintain Local Area Network (LAN) systems. Graduates may work with larger employers in IT Departments, largely in the service, manufacturing or wholesale trade industries, or at educational institutions.

### Advisor:

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For general information, contact the Admissions Office:  
(406) 756-3847.



The Integrated Agriculture and Food Systems program will prepare students to develop and manage their own farm business, or to pursue careers in agricultural and horticultural science, sales, or production. While enrolled in the program, individuals will learn the fundamentals of crop, soil, and livestock management, along with the business skills necessary to operate a farm enterprise. The program focuses on the integration of crop and livestock production principles to create sustainable farming and food systems. Through laboratory courses, field trips, and internships on the FVCC campus farm and in the community, the Integrated Agriculture and Food Systems program provides students with a hands-on, multidisciplinary experience in agriculture and food systems. Upon completion of this program, students will:

- Describe the components and complexities of our modern food system;
- Demonstrate knowledge of crop and livestock production methods;
- Identify, diagnose and manage pests and diseases of crop plants and livestock;
- Consider the whole-farm implications of their management decisions;
- Safely and effectively operate farm machinery and equipment;
- Describe various marketing opportunities in small and large-scale agriculture; and
- Identify the necessary steps to start and operate a new business.

### Required Courses

#### First Year - Fall Semester

- ANSC 100 - Introduction to Animal Science Credit(s): 3
- BIOB 110N - Plant Science Credit(s): 3

- BMGT 205C - Professional Business Communication Credit(s): 3 \*

#### OR

- WRIT 101W - College Writing I Credit(s): 3 \*
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- SFBS 146 - Introduction to Sustainable Food and Bioenergy Systems Credit(s): 3

#### First Semester Total: 15

#### Spring Semester

- AGSC 202 - Organic Crop Production: Spring Credit(s): 3
- AGSC 230 - Agricultural Pest Management Credit(s): 5
- AGSC 241 - Field Crop Production Credit(s): 3 \*
- ENSC 245NL - Soils Credit(s): 4

#### Second Semester Total: 15

#### Summer Semester

- AGSC 246 - Agriculture in Montana Field Course Credit(s): 2
- AGSC 298 - Internship: Campus Farm Credit(s): 3-6

#### Third Semester Total: 5-8

#### Second Year - Fall Semester

- AGMT 200 - Agricultural Marketing Credit(s): 3
- AGSC 200 - Soil Nutrient Management Credit(s): 3 \*
- AGSC 202 - Organic Crop Production: Fall Credit(s): 3
- ANSC 222 - Livestock in Sustainable Systems Credit(s): 3 \*
- BMGT 210 - Small Business Entrepreneurship Credit(s): 3

#### First Semester Total: 15

#### Spring Semester

- ACTG 122 - Accounting and Business Decisions Credit(s): 2
- AGSC 298 - Internship: Agricultural Enterprise Credit(s): 3 or 4 \*
- AGSC 299 - Capstone: Integrated Agriculture and Food Systems Credit(s): 3 \*
- AGTE 238 - Farm Maintenance and Equipment Credit(s): 4
- BGEN 280 - Business Planning Credit(s): 3 \*

#### Second Semester Total: 15-16

#### Total Credits: 65-69

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- An internship is required for this program. Students must apply for internship placements for this program the prior semester. See Internships for more information and application deadlines.

### Opportunities after Graduation

- Graduates can expect to find employment in a variety of agricultural jobs, including as plant/soil/animal science technicians, in agricultural sales/marketing, or as farm managers. Small-scale farming is one of the fastest growing sectors in agriculture, which presents opportunities for graduates to be self-employed farmers.

### Advisor:

Dr. Heather Estrada  
RH 108  
(406) 756-4182  
hestrada@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

This program is designed for students with academic and professional interests in a variety of fields. Students pursuing liberal studies can expect to acquire a well-developed capacity for independent and critical thinking, as well as writing and speaking skills. The Bachelor of Arts in Liberal Studies through **The University of Montana - Missoula** and Bachelor of Science in Liberal Studies through **Montana State University - Billings** or **Montana State University - Bozeman** provide graduates with a solid foundation for a number of careers. The University of Montana - Missoula interdisciplinary program gives students a systematic and in-depth study of culture, humanities and social science right on the campus.

Liberal Studies majors also have the option of earning a Bachelor of Science degree in Liberal Studies through either **Montana State University - Billings** or **Montana State University - Bozeman** via on-line programs. A student would earn a generic Associate of Arts or Associate of Science degree at FVCC before starting the upper division courses in a thematic concentration arranged with the advisor at the desired school. Students planning to enroll at MSU Bozeman should complete two semesters of the same foreign language while earning their FVCC degree.

## Associate of Arts Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- HSTA 101B - American History I Credit(s): 4  
**OR**
- HSTA 102B - American History II Credit(s): 4
- HSTR 101B - Western Civilization I Credit(s): 4  
**OR**
- HSTR 102B - Western Civilization II Credit(s): 4
- NASX 105G - Introduction to Native American Studies  
Credit(s): 3  
**OR**
- NASX 232G - Montana Indians: Cultures, Histories, Current  
Issues Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 3
- Fine Arts (F) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3-4

**First Year Total: 29-30**

#### Second Year

- FRCH 101GH - Elementary French I Credit(s): 5 **and**
- FRCH 102GH - Elementary French II Credit(s): 5 \*  
**OR**
- GRMN 101GH - Elementary German I Credit(s): 5 **and**
- GRMN 102GH - Elementary German II Credit(s): 5 \*  
**OR**
- ITLN 101GH - Elementary Italian I Credit(s): 5 **and**
- ITLN 102GH - Elementary Italian II Credit(s): 5 \*  
**OR**
- RUSS 101GH - Elementary Russian I Credit(s): 5 **and**
- RUSS 102GH - Elementary Russian II Credit(s): 5 \*  
**OR**
- SPNS 101GH - Elementary Spanish I Credit(s): 5 **and**
- SPNS 102GH - Elementary Spanish II Credit(s): 5 \*
- LIT 206GH - European Literature of the 20th Century  
Credit(s): 3  
**OR**
- LIT 223H - British Literature I Credit(s): 3  
**OR**
- LIT 224H - British Literature II Credit(s): 3
- LIT 210H - American Literature I Credit(s): 3  
**OR**
- LIT 211H - American Literature II Credit(s): 3
- LIT 240H - Bible as Literature Credit(s): 3  
**OR**
- LIT 243 - Women of the Bible: A Literary Approach Credit(s): 3  
**OR**
- RLST 100G - Introduction to the Study of Religion Credit(s): 3  
**OR**
- RLST 205 - Introduction to New Testament Credit(s): 3  
**OR**
- RLST 220G - Interpretations of American Religion Credit(s): 3
- PHL 101H - Introduction to Philosophy: Reason and Reality  
Credit(s): 3  
**OR**
- PHL 110H - Introduction to Ethics: Problems of Good and Evil  
Credit(s): 3  
**OR**
- PSCI 210B - Introduction to American Government Credit(s): 3  
**OR**
- PSCI 250B - Introduction to Political Theory Credit(s): 3
- Electives Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 31**

**Total Credits: 60-61**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

Carole Bergin  
AT 229  
(406) 756-3902  
cbergin@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

*(Also offered at Lincoln County Campus)*

This program is designed for students currently employed in marketing or sales and wishing to develop additional skills or for an employer attempting to develop an employee currently within the organization. The program will cover the essentials of the core classes in the study of sales and marketing. This program could be extended into an AAS degree in business administration. Upon completion of this program, students will:

- Explain the importance of customer service to a business;
- Describe the marketing process and explain the variables that make up the marketing mix;
- Explain the variables that impact consumer behavior in the market place; and
- Develop effective customer relations and use correspondence and communications technology in appropriate ways to improve customer service and relations.

### Required Courses

#### Fall Semester

- AMGT 150 - Customer Service Strategies Credit(s): 3
- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMGT 215 - Human Resource Management Credit(s): 3
- BMKT 225 - Marketing Credit(s): 3

**First Semester Total: 16**

#### Spring Semester

- BMGT 235 - Management Credit(s): 3
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- OR**
- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
- ECNS 201B - Principles of Microeconomics Credit(s): 3
- OR**
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- Electives - ACTG, BMGT, or CAPP Credit(s): 3

**Second Semester Total: 12**

#### Take two of the following:

- CAPP 114 - Short Courses: MS Word Credit(s): 1
- CAPP 116 - Short Courses: MS Excel Credit(s): 1
- CAPP 118 - Short Courses: MS Access Credit(s): 1

**Total: 2**

**Total Credits: 30**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- Contact your advisor for Program Information.
- This program provides students with the basic proficiencies needed in the field of marketing/sales.
- This program will give the students a broad overview of the basics of salesmanship and marketing.
- Some courses require satisfactory scores on placement exams before being admitted. See course descriptions for details.

### Opportunities after Graduation

- This certificate prepares students for entry-level positions in business as a salesperson marketing/sales trainee. Any occupation requiring sales and/or marketing, self employment in the sales marketing field is an option, and this certificate would also benefit the owner/operator of a personal business.

### Advisors:

Kalispell  
Connie Hitchcock  
BSS 107  
(406) 756-4329  
chitchcock@fvcc.edu

Libby  
Chad Shilling  
Room #105  
(406) 293-2721, ext. 233  
cshillin@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

The mathematics transfer program is designed to prepare students for transfer to a four-year institution where they can generally choose among several options. The pure mathematics option emphasizes mathematical analysis and is designed to prepare students for graduate study. A student who completes graduate study finds employment in research areas in government, education, and industry. The applied math option emphasizes applied mathematics and numerical techniques, statistics, and computer programming. Graduates find employment in business, industry, and government. The statistics option trains students to design and analyze studies, surveys, and experiments. They often find employment as statisticians with insurance companies, research and development departments, and government. The math education option prepares teachers at the secondary level.

The suggested course of study will prepare students for transfer to **Montana State University - Bozeman, Montana Tech of The University of Montana, and The University of Montana - Missoula.**

## Associate of Science Degree

### Suggested course of study for:

**Montana State University - Bozeman, Montana Tech of The University of Montana, The University of Montana - Missoula** and most four-year institutions:

#### First Year

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- CSCI 111 - Programming with Java I Credit(s): 4 <sup>2</sup>  
**OR**
- CSCI 113 - Programming with C++ I Credit(s): 4 \*
- M 171M - Calculus I Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Year Total: 32**

#### Second Year

- M 221M - Introduction to Linear Algebra Credit(s): 4 \*
- M 273M - Multivariable Calculus Credit(s): 5 \*
- M 274M - Introduction to Differential Equations Credit(s): 5 \* <sup>3</sup>  
**OR**
- Electives Credit(s): 5
- Electives Credit(s): 2<sup>4</sup>
- Electives Credit(s): 3<sup>4,5</sup>
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 31**

**Total Credits: 63**

<sup>1</sup>Selection of science courses depends on what option you are seeking. PHSX 220NL\* and PHSX 222NL\* is commonly recommended and is required at Montana State University. Check with your advisor and catalog of your transfer institution.

<sup>2</sup>Selection of computer class depends on what option you are seeking or to which school you are transferring. The University of Montana requires two computer programming classes. Check with your advisor and catalog of your transfer institution, if you intend to transfer elsewhere.

<sup>3</sup>If transferring to MSU-Bozeman.

<sup>4</sup>Mathematics Education majors transferring to The University of Montana should take EDU 221\* and EDU 270.

<sup>5</sup>If transferring to MSU-Bozeman, take M 242\*.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

Dr. Don Hicketier  
RH 172  
(406) 756-3361  
dhicketh@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

Medical Assistants are multi-skilled practitioners who perform a wide range of roles in physicians' offices and other health care settings. They are proficient in a multitude of administrative, clerical and clinical tasks and are widely viewed by doctors as vital partners in the medical office. Medical Assistant graduates will use modern technology to:

- Perform clerical functions;
- Perform bookkeeping functions;
- Process insurance claims;
- Perform fundamental clinical procedures such as electrocardiogram, sterilization, venipuncture and injections;
- Perform specimen collection and preparation;
- Perform routine diagnostic testing;
- Provide routine patient care as directed by a physician;
- Communicate professionally and effectively;
- Perform within legal and ethical boundaries;
- Provide patient instruction as needed;
- Perform routine office operational functions as needed; and
- Demonstrate professionalism in a health care setting.

### Required Courses

#### First Year - Fall Semester

- AH 230 - Electronic Health Records Credit(s): 3
- AHMS 144 - Medical Terminology Credit(s): 3
- AMGT 090~ - Introductory Keyboarding Credit(s): 1
- BIOH 104N - Basic Human Biology Credit(s): 3
- BIOH 105L - Basic Human Biology Laboratory Credit(s): 1 \*
- BMGT 205C - Professional Business Communication Credit(s): 3 \*

**First Semester Total: 14**

#### Spring Semester

- AHMA 201 - Medical Assisting Clinical Procedures I Credit(s): 4 \* 1
- AHMA 202 - Medical Assisting Clinical Procedures I Lab Credit(s): 1
- AHMA 205 - Medical Assisting Clinical Approaches I Credit(s): 1 \*
- AHMS 175 - Medical Law and Ethics Credit(s): 3
- AHMS 220 - Medical Office Procedures Credit(s): 4 \*
- CHMY 160 - Pharmacology Credit(s): 3

**Second Semester Total: 16**

#### Summer Semester

- AMGT 125 - Editing Skills for Information Processing Credit(s): 2 \*
- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*
- CAPP 154 - MS Word Credit(s): 3
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3

**Third Semester Total: 12**

#### Second Year - Fall Semester

- AHMA 203 - Medical Assisting Clinical Procedures II Credit(s): 4 \* 1
- AHMA 204 - Medical Assisting Clinical Procedures II Lab Credit(s): 1
- AHMA 206 - Medical Assisting Clinical Approaches II Credit(s): 1 \*
- AHMA 220 - Phlebotomy Credit(s): 3 \*
- AHMS 210 - Basic Medical Coding Credit(s): 3 \*
- BIOL 170 - Disease Processes/Pharmacology Credit(s): 4 \*

**First Semester Total: 16**

#### Spring Semester

- AHMA 298 - Medical Assisting Externship Credit(s): 4 \* 1
- AHMA 299 - Medical Assisting Portfolio Development Credit(s): 1 \*
- AHMS 252 - Computerized Medical Billing Credit(s): 2

**Second Semester Total: 7**

**Total Credits: 65**

<sup>1</sup>AHMA 201\*, AHMA 203\*, and AHMA 298\* must have program director's signature for admission and must be taken consecutively; students must earn a "B" or better in all three courses. AHMA 298\* is an externship which involves 180 hours of unpaid work experience in various medical offices in the community. Externship responsibilities can include working during spring break. It is highly recommended that students have their own health insurance before starting the externship.

#### Strongly recommended courses:

- ACTG 101 - Accounting Procedures I Credit(s): 4
- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
- CAPP 116 - Short Courses: MS Excel Credit(s): 1
- CAPP 131 - Basic MS Office Credit(s): 2
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- ECP 100 - First Aid and CPR Credit(s): 2
- PSYX 100A - Introduction to Psychology Credit(s): 4

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Admission Guidelines

- Students are admitted on a first-come, first-served basis. The Medical Assistant program has a maximum of 12 students in each graduating class. This may result in students taking more than two years to complete the program.
- The Medical Assistant program demands high academic and personal standards. Any student who exhibits unsuitable performance and/or behavior may be denied the right to complete the program.



## Program Information

- All requirements for the Medical Assistant program are stated in the Medical Assistant Student Handbook.
- Students considering this degree should familiarize themselves with the requirements.
- Copies of the handbook are available from the program director in BSS 108.
- Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, contact the AmeriCorps office at (406) 756-3908.
- Students in the Medical Assistant program must earn a "C-" or better in ALL classes, except AHMA 201\*, AHMA 203\* and AHMA 298\* which require a "B" or above.
- Students are responsible for at least \$200 of additional costs to cover the AAMA certification exam, uniforms, personal medical supplies, health insurance, drug screening and immunizations.
- Background/Sexual Offender Information Disclosure (BID) Form  
A criminal and sexual offender background check is required for all Medical Assistant students. Any changes in a conviction record and/or pending criminal charges which occur between the initial completion of the Background Information/Screen and program completion must be provided in writing to the Program Director within five (5) working days from the date of notification. Failure to provide such information within the aforementioned timeframe can result in immediate dismissal from the program.
- American Disabilities Act (ADA) Statement  
Students with recognized disabilities or other physical limitations that may affect their performance as a medical assistant, are responsible for identifying themselves as soon as possible to the Advocate for Students with Disabilities and to the program director. Course standards will not be lowered, but various accommodations are available. A minimum of six (6) weeks will be required to develop and provide appropriate accommodations, so students who qualify should contact Disability Services as soon as possible. It is the college's goal to assist students in their individual educational plans.
- Program Accreditation  
The FVCC Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE).  

Commission on Accreditation of Allied Health  
Education Programs  
1361 Park Avenue  
Clearwater, FL 33756  
(727) 210-2350
- Certifications  
Medical Assistant graduates are qualified to take a national exam and become **ASCP-board certified** as a phlebotomy technician.
- American Heart Association provider-level CPR certification.
- Medical Assistant graduates are qualified to take the **American Association of Medical Assistants** National Certification Exam.

## Opportunities after Graduation

- America's Career Info Net has listed Medical Assistant positions 12th in the top 25 occupations showing growth in Montana.
- On a national level, medical assistant is the 10th fastest growing occupation with a 57% growth rate.
- The continued aging of the population and growth of medical facilities in the Flathead Valley will provide further demand for Medical Assistants.

### Advisor:

Karla West  
BSS 108  
(406) 756-3918  
kwest@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.



*(Also offered at Lincoln County Campus)*

Health information coding is the transformation of verbal descriptions of diseases, injuries, and procedures into alphanumeric designations. Currently, reimbursement of hospital and physical claims for patients depends entirely on the assignment of codes. Coding is one of the fastest growing professions in the United States. Upon completion of this program, students will:

- Demonstrate the professional work habits expected in the medical coding profession including confidentiality and ethical practices;
- Apply medical terminology, anatomy and physiology, and disease process knowledge to seek the appropriate code;
- Complete insurance forms (HCFA) using ICD-10-CM, CPT and HCPCS codes;
- Demonstrate the ability to communicate orally and in writing;
- Abstract code data from medical records; and
- Demonstrate effective leadership skills.

### Required Courses

#### First Year - Fall Semester

- AHMS 105 - Health Care Delivery Credit(s): 3
- AHMS 144 - Medical Terminology Credit(s): 3
- AHMS 175 - Medical Law and Ethics Credit(s): 3
- BIOH 104N - Basic Human Biology Credit(s): 3
- BIOH 105L - Basic Human Biology Laboratory Credit(s): 1 \*
- CAPP 131 - Basic MS Office Credit(s): 2
- Elective Credit(s): 1

**First Semester Total: 16**

#### Spring Semester

- AH 230 - Electronic Health Records Credit(s): 3
- AHMS 108 - Health Data Content Structure Credit(s): 3 \*
- AHMS 210 - Basic Medical Coding Credit(s): 3 \*
- AHMS 252 - Computerized Medical Billing Credit(s): 2
- BIOL 170 - Disease Processes/ Pharmacology Credit(s): 4 \*

**Second Semester Total: 15**

#### Second Year - Fall Semester

- AHMS 212 - CPT Coding Credit(s): 3 \*
- AHMS 213 - ICD-10 Coding Credit(s): 3 \*
- AHMS 220 - Medical Office Procedures Credit(s): 4 \*
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4

**First Semester Total: 17**

#### Spring Semester

- AHMS 100 - Math Applications for Allied Health Professionals Credit(s): 3 \*

#### OR

- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*

- AHMS 250 - Advanced Medical Coding Credit(s): 4 \*
- BGEN 110 - Applied Business Leadership Credit(s): 3
- CAPP 156 - MS Excel Credit(s): 3
- Electives Credit(s): 3

**Second Semester Total: 16-17**

**Total Credits: 64-65**

#### Optional Course Offerings:

- AHMS 198 - Internship Credit(s): 3 \*
- AHMS 298 - Internship: Coding On-the-Job Training Credit(s): 10 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Program Information

- An internship is an option for this program.
- Students must apply for placements for this program the prior semester. See Internships for more information and application deadlines.
- Students in the Medical Coding program must receive a "C-" or better in AHMS 210\* and AHMS 212\* to receive this degree.
- All courses within this degree program must be taken for a letter grade. No courses may be taken on a Satisfactory/Unsatisfactory (S/U) basis.
- Students who complete this degree program should be ready to sit for the Certified Coding Associate (CCA) examination.
- Some classes may only be offered online.

#### Opportunities after Graduation

- Rapid growth in the health services industry as a whole and the expansion of the medical community in the area should fuel growth within this occupation. Positions for Health Information Technicians in Montana are projected to experience an 18% growth increase from 2008-2018.
- Students are encouraged to take the CCA Exam.

#### Advisor:

Brenda Rudolph  
BSS 106  
(406) 756-3858  
brudolph@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

**This program is currently in moratorium.  
No new students will be admitted into this program  
until further notice.**

Medical Transcriptionists' work is focused on translating a doctor's report to an electronic record of a person's medical history, diagnosis and treatment. Upon completion of this program, students will:

- Demonstrate proper use of the English and medical languages;
- Practice professionalism;
- Use related references and resources for research and practice;
- Use knowledge of standards and regulations in health care documentation;
- Transcribe dictation from tapes, CDs and voice recognition into permanent medical records;
- Operate appropriate software and transcription equipment; and
- Use knowledge of structure, function and terminology related to the human body for communication in health care systems.

### Required Courses

#### Fall Semester (Must take all classes together)

- AHMS 101 - Keyboard Formatting for Medical Reports  
Credit(s): 1
- AHMS 104 - Medical Specialties Credit(s): 3
- AHMS 110 - Study of the Human Body and Disease Process I  
Credit(s): 3
- AHMS 115 - Study of the Human Body and Disease Process II  
Credit(s): 3 \*
- AHMS 120 - Grammar Essentials for Medical Transcription  
Credit(s): 2
- AHMS 133 - Language of Medical Transcription Credit(s): 2
- BMGT 205C - Professional Business Communication  
Credit(s): 3 \*

**First Semester Total: 17**

#### Spring Semester (Must take all classes together)

- AHMS 125 - Editing and Proofreading for MT Credit(s): 2
- AHMS 130 - Physical Exam, Lab Data, Pharmacology  
Credit(s): 2
- AHMS 135 - Voice Recognition for Medical Support  
Credit(s): 1
- AHMS 140 - MT Technology/Shortcuts/ Employment  
Credit(s): 1
- AHMS 202 - Beginning Medical Transcription Credit(s): 3
- AHMS 204 - Intermediate Medical Transcription Credit(s): 3 \*
- AHMS 206 - Advanced Medical Transcription Credit(s): 3 \*
- BGEN 122 - Applied Business and Allied Health Math  
Credit(s): 4 \*

**Second Semester Total: 19**

**Total Credits: 36**

#### Optional Course Offering:

- AHMS 298 - Internship: Medical Transcription Credit(s): 3 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- Students must take the COMPASS placement test for placement into BGEN 122\* and BMGT 205C\*.
- Students must take all scheduled classes for the semester. They are not able to take one class at a time.

### Program Information

- An internship is an option for this program. Students must apply for placements for this program the prior semester. See Internships for more information and application deadlines.
- The decision to become a medical transcriptionist is important. Learning the medical language is like learning a foreign language. It takes diligence and motivation. Accuracy and speed are essential which means the people that are best suited for this job are well-coordinated, disciplined and have an exceptional ear.
- Students can sit for the Certified Medical Transcriptionist Exam after two years' experience in the field.
- Students will need a computer, high speed Internet and a secure work location.

### Opportunities after Graduation

- As the health care industry moves toward electronic health records as the standard allowing easier storage and accessibility of an individual's history by physicians anywhere there is an increased demand for medical transcriptionists.
- Rapid growth in the health services industry as a whole and the expansion of the medical community in the area should fuel growth within this occupation.
- In many cases, medical transcriptionists are paid by the line, so it is a field where productivity drives compensation. Expect to earn between \$30,000 and \$40,000 annually once you are well-trained.

### Advisor:

Brenda Rudolph  
BSS 106  
(406 )756-3858  
brudolph@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

This program is designed for students interested in pursuing their first year in music education or music technology or their first two years for a bachelor of arts in music. Students who intend to seek a career in Music can complete most of the first two years of study at FVCC to ready themselves for their junior year at **Montana State University - Bozeman** or at **The University of Montana - Missoula**. MSU's College of Music prepares graduates for the following degrees: Bachelor of Arts with a Major in Music, Music Education, Music Technology, and a Music Minor. UM's College of Music prepares graduates for the following degrees: Bachelor of Arts with a Major in Music, Music in Composition, Music in Performance, Music Education, and a Music Minor.

### Associate of Arts Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman:

##### First Year

- MUSI 100 - Concert Attendance Credit(s): 0
- MUSI 105F - Music Theory I Credit(s): 3 \*
- MUSI 106F - Music Theory II Credit(s): 3 \*
- MUSI 135 - Keyboard Skills I Credit(s): 1
- MUSI 136 - Keyboard Skills II Credit(s): 1 \*
- MUSI 140 - Aural Perception I Credit(s): 2
- MUSI 141 - Aural Perception II Credit(s): 2 \*
- MUSI 195 - Applied Music I Credit(s): 1 \*
- MUSI 207FG - World Music Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3-4<sup>1</sup>

##### Select one of the following: \*\*

- MUSI 112 - Choir: Community Choir Credit(s): 1
- MUSI 114 - Band: Community Band Credit(s): 1
- MUSI 131 - Jazz Ensemble I: FVCC Credit(s): 1 \*
- MUSI 212 - Choir II: Glacier Symphony Credit(s): 1 \*

##### First Year Total 32-33

##### Second Year

- MUSI 100 - Concert Attendance Credit(s): 0
- MUSI 195 - Applied Music I Credit(s): 1 \*
- MUSI 205 - Music Theory III Credit(s): 3 \*
- MUSI 206 - Music Theory IV Credit(s): 3 \*
- MUSI 230 - Intermediate Keyboard Skill: Repertoire Credit(s): 1 \*
- MUSI 231 - Intermediate Keyboard Skill: Accompanying Credit(s): 1 \*
- MUSI 240 - Aural Perception III Credit(s): 2 \*
- MUSI 241 - Aural Perception IV Credit(s): 2 \*
- NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
- Communications (C) Requirement Credit(s): 3<sup>2</sup>
- Communications (C) Requirement Credit(s): 3
- OR**
- Humanities (H) Requirement Credit(s): 3
- OR**
- Social Sciences (A or B) Requirement Credit(s): 3<sup>3</sup>
- OR**
- WRIT 201W - College Writing II Credit(s): 3 \*
- Electives Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

##### Select one of the following:

- MUSI 112 - Choir: Community Choir Credit(s): 1
- MUSI 114 - Band: Community Band Credit(s): 1
- MUSI 131 - Jazz Ensemble I: FVCC Credit(s): 1 \*

##### Second Year Total 32\*\*\*

##### Total Credits 64-65\*\*\*

<sup>1,2</sup> Students interested in Music Education should take PSYX 100A and COMX 111C respectively for these requirements.

<sup>3</sup> For education, take PSYX 230A\*.

\*Indicates prerequisite and/or corequisite needed. Check course description.

##### \*\* Additional elective options available on the FVCC campus listed below:

- MUSI 101F - Enjoyment of Music Credit(s): 3
- MUSI 130F - History of Jazz Credit(s): 3
- MUSI 131 - Jazz Ensemble I: FVCC Credit(s): 1 \*
- MUSI 132 F - History of Rock and Roll Credit(s): 3
- MUSI 148 - Ensemble: Strings Credit(s): 1 \*
- MUSI 160 - Beginning Guitar Credit(s): 3
- MUSI 260 - Intermediate Guitar Credit(s): 3 \*

##### \*\*\*If time permits, or if interested in pursuing a Bachelor of Arts in Music Education, the following courses are recommended:

- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3

\*Indicates prerequisite and/or corequisite needed. Check course description.

# Music Transfer

2015-2016

## Associate of Arts Degree

### Suggested course of study for a transfer to The University of Montana - Missoula

#### First Year

- MUSI 105F - Music Theory I Credit(s): 3
- MUSI 106F - Music Theory II Credit(s): 3 \*
- MUSI 135 - Keyboard Skills I Credit(s): 1
- MUSI 136 - Keyboard Skills II Credit(s): 1 \*
- MUSI 140 - Aural Perception I Credit(s): 2
- MUSI 141 - Aural Perception II Credit(s): 2 \*
- MUSI 195 - Applied Music I Credit(s): 1 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives Credit(s): 3 \*
- Global Issues (G) Requirement Credit(s): 3 1
- Humanities (H) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3-4 2

**First Year Total: 34-35**

#### Second Year

- MUSI 112 - Choir: Community Choir Credit(s): 1
- OR**
- MUSI 212 - Choir II: Glacier Symphony Credit(s): 1 \*
- MUSI 195 - Applied Music I Credit(s): 1 \*
- MUSI 205 - Music Theory III Credit(s): 3 \*
- MUSI 206 - Music Theory IV Credit(s): 3 \*
- MUSI 230 - Intermediate Keyboard Skill: Repertoire Credit(s): 1 \*
- MUSI 231 - Intermediate Keyboard Skill: Accompanying Credit(s): 1 \*
- MUSI 240 - Aural Perception III Credit(s): 2 \*
- MUSI 241 - Aural Perception IV Credit(s): 2 \*
- Communications (C) Requirement Credit(s): 3 3
- Communications (C) Requirement Credit(s): 3
- OR**
- Humanities (H) Requirement Credit(s): 3
- OR
- Social Sciences (A or B) Requirement Credit(s): 3
- OR**
- Writing (W) Requirement Credit(s): 3
- Electives Credit(s): 5 \*\*
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 34**

**Total Credits: 68-69\*\***

### \*\*Additional elective options available on the FVCC campus listed below:

- MUSI 101F - Enjoyment of Music Credit(s): 3
- MUSI 130F - History of Jazz Credit(s): 3
- MUSI 131 - Jazz Ensemble I: FVCC Credit(s): 1 \*
- MUSI 132 F - History of Rock and Roll Credit(s): 3
- MUSI 148 - Ensemble: Strings Credit(s): 1 \*
- MUSI 160 - Beginning Guitar Credit(s): 3
- MUSI 260 - Intermediate Guitar Credit(s): 3 \*

### \*\*If time permits, or if interested in pursuing a Bachelor of Arts in Music Education, the following courses are recommended:

- EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- EDU 270 - Instructional Technology Credit(s): 3
- HEE 233 - Health Issues of Children and Adolescents Credit(s): 3

\*Indicates prerequisite and/or corequisite needed. Check course description.

<sup>1,2,3</sup> Students interested in Music Education should take NASX 105G, PSYX 100A, and COMX 111C or THTR 122C respectively for these requirements.

Please note additional music electives must be approved in advance by the UM Music Department Chair.

#### Advisors:

Nicole S. Sanford  
AT 105  
(406) 756-4813  
nsanford@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

The Natural Resources Conservation and Management program prepares students to work as technicians collecting and interpreting environmental information through techniques developed and refined in the traditional fields of forestry, range, water, wildlife and recreation. Students will apply this knowledge to the emerging fields of restorative and sustainable land management. Upon completion of this program, students will:

- Understand the complex biological, physical and human interactions as they relate to natural resources and land management;
- Demonstrate strong math and computer skills;
- Use various measuring instruments and accurately record data;
- Summarize, analyze and present results from collected data to supervisors and interested parties;
- Identify many trees, shrubs, forbs and grasses occurring in Montana;
- Use compasses, GPS receivers and maps to navigate within the public land survey system and locate ownerships and establish sample points;
- Use GPS and GIS techniques to analyze and present data within the context of land use and management;
- Identify many insect, disease and fire hazard situations and their relationships to ecology and sustainability; and
- Understand various federal, state and local laws, which govern people's use and management of land.

### Required Courses

#### First Year - Fall Semester

- FORS 120 - Forestry Navigation Credit(s): 2
- FORS 153 - Forest Resource Calculations Credit(s): 3 \*
- NRSM 101 - Natural Resource Conservation Credit(s): 3
- NRSM 161 - Natural Resource Measurements I Credit(s): 5
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 16**

#### Spring Semester

- CAPP 116 - Short Courses: MS Excel Credit(s): 1
- ENSC 245NL - Soils Credit(s): 4
- ENSC 272 - Water Resources Credit(s): 4
- FORS 152 - Sustainable Silviculture Credit(s): 4
- SRVY 120 - Surveying in Natural Resources Credit(s): 2

**Second Semester Total: 15**

#### Second Year - Fall Semester

- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- ENST 285 - Environmental Policy and Impact Analysis Credit(s): 3
- FORX 272 - Inventory of Natural Resources Credit(s): 4 \*
- PTRM 201 - Recreation Management Credit(s): 2
- SRVY 233 - Introduction to GIS for Natural Resource Assessment Credit(s): 4

**First Semester Total: 16**

#### Spring Semester

- ECNS 132 - Economics and the Environment Credit(s): 3
- FORS 230 - Forest Fire Management Credit(s): 3
- FORS 232 - Forest Insects and Diseases Credit(s): 3\*
- FORS 251 - Photogrammetry and Remote Sensing Credit(s): 3\*
- SRVY 245 - GPS Mapping Credit(s): 2 \*
- WILD 270N - Wildlife Habitat and Conservation Credit(s): 3

**Second Semester Total: 17**

**Total Credits: 64**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- This program is an ideal vehicle from which to launch a pursuit of baccalaureate level studies in the traditional areas of forestry, range, water, wildlife and recreation, but also urban forestry, land restoration and land rehabilitation.
- This program makes extensive use of basic mathematics, and it is essential that students develop a strong math background to insure successful completion of the program.

### Opportunities after Graduation

- Many employment opportunities are with federal, state and county governmental agencies. Private industry, extractive and renewable, employs technicians. Consulting firms, which contract with government and private entities, also hire technicians. Many employers prefer applicants who have a good overall knowledge of collecting and interpreting data about natural resources and have an associate's degree in Natural Resources Conservation and Management.

### Advisors:

Tim Eichner  
RH 155  
(406) 756-3898  
teichner@fvcc.edu

Dr. Christina Relyea  
RH 156  
(406) 756-3946  
crelyea@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

# Nondestructive Testing, CAS

2015-2016

The Nondestructive Testing program is designed to provide students experience in nondestructive test methods, visual inspection, liquid penetrant, magnetic particle, eddy current, ultrasonic and radiographic testing. Upon completion of this program, students will:

- Demonstrate safe practices for nondestructive testing;
- Be able to summarize the rules and regulations of radiation safety and characteristics of x-ray and gamma radiation;
- Be able to illustrate electromagnetic principles and be able to use the equipment;
- Demonstrate knowledge of theory and be able to apply ultrasonic techniques;
- Be able to summarize magnetic particle testing formulas, methods, applications, limitations, material sensitivity, and equipment calibration;
- Be able to summarize liquid penetrant formulas, methods, applications and limitations; and
- Demonstrate knowledge of documents governing nondestructive testing and qualification.

## Required Courses

### Fall Semester

- M 114 - Extended Technical Mathematics Credit(s): 3 \*
- NDTE 110 - Introduction to Nondestructive Testing Credit(s): 3 \*
- NDTE 111 - Liquid Penetrant and Magnetic Particle Testing Credit(s): 3 \*
- NDTE 113 - Ultrasonic Testing I Credit(s): 3
- NDTE 121 - Radiographic Testing I Credit(s): 2
- WLDG 111 - Welding Theory I Practical Credit(s): 4 \*

**First Semester Total: 18**

### Spring Semester

- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- CAPP 106 - Short Courses: Computer Applications Credit(s): 1 \*
- ECP 104 - Workplace Safety Credit(s): 1
- NDTE 114 - Ultrasonic Testing II Credit(s): 3 \*
- NDTE 115 - Eddy Current Testing Credit(s): 3 \*
- NDTE 122 - Radiographic Testing II Credit(s): 3 \*
- NDTE 125 - AWS D1.1 Code Book Credit(s): 2 \*

**Second Semester Total: 16**

**Total Credits 34**

## Recommended Course Offering:

- WLDG 185 - Welding Qualification Test Preparation Credit(s): 2 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Admission Guidelines

- Visual acuity should be correctable to 20-20 with capability of differentiating contrast among colors and shades.

## Program Information

- Students who successfully complete the Certificate of Applied Science program will have achieved the educational requirements necessary to take the ASNT Level II National Certification exam. ASNT also requires documented work experience as part of the application for the Level II exam.

## Opportunities after Graduation

- Career opportunities offer a wide range of possibilities as an inspector in the fabrication and manufacturing industries, steel construction, mining, energy, petroleum, aviation, bridge construction, and other production areas.

## Advisor:

Pete Wade  
OT 108  
(406) 756-3968  
pwade@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*



Paramedicine is a career focusing on pre-hospital emergency medical care. A degree in this area will improve knowledge as well as marketability in a highly competitive field. Upon completion of this program, students will:

- Be eligible to sit for the NREMT written and practical examinations at the paramedic level.

### Required Courses

#### First Year

#### Pre-Paramedicine Requirements

- AHMS 100 - Math Applications for Allied Health Professionals Credit(s): 3 \*
- AHMS 144 - Medical Terminology Credit(s): 3
- BIOH 104N - Basic Human Biology Credit(s): 3
- BIOH 105L - Basic Human Biology Laboratory Credit(s): 1 \*
  
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- OR**
- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
  
- WRIT 101W - College Writing I Credit(s): 3 \*

**Pre-Paramedicine Total: 16**

#### Fall Semester

- ECP 200 - Transition to Paramedic Care Credit(s): 3 \*
- ECP 201 - Paramedic Fundamentals Credit(s): 3 \*
- ECP 202 - Paramedic Fundamentals Lab Credit(s): 1 \*
- ECP 204 - Medical Emergencies I Credit(s): 3 \*
- ECP 205 - Medical Emergencies I Lab Credit(s): 1 \*
- ECP 216 - Hospital Clinical I Credit(s): 5 \*

**Fall Semester Total: 16**

#### Spring Semester

- ECP 230 - Trauma Credit(s): 3 \*
- ECP 231 - Trauma Lab Credit(s): 1 \*
- ECP 234 - Medical Emergencies II Credit(s): 3 \*
- ECP 235 - EMS Operations Credit(s): 3 \*
- ECP 236 - Medical II / EMS Operations Lab Credit(s): 1 \*
- ECP 246 - Hospital Clinical II Credit(s): 6 \*

**Spring Semester Total: 17**

#### Summer Semester

- ECP 206 - EMS Case Studies Credit(s): 3 \*
- ECP 250 - NREMT Exam Preparation Credit(s): 2 \*
- ECP 251 - NREMT Exam Preparation Lab Credit(s): 2 \*
- ECP 295 - Field Experience: Clinical III Credit(s): 8 \*

**Summer Semester Total: 15**

**Total Credits: 64**

\* Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

Placement/Acceptance in the Paramedic core training courses are subject to the following conditions/limitations:

- **Candidates must have a valid NREMT certification, and be able to obtain Montana state EMT licensure prior to beginning ECP core paramedic courses.**
- **Applicants who do not meet the requirement of holding a valid NREMT certification may enroll in ECP 130 to meet this program requirement. ECP 130 is offered all semesters.**
- Applications are available February 1 and must be completed and returned no later than March 31. The priority application deadline is February 15.
- Placement in the paramedic core training is not guaranteed within two years.
- A maximum of 12 students will be accepted to begin the Paramedic (ECP) course series.
- All students enrolled in ECP courses must have a current personal health insurance policy.
- Candidates must pass an entrance examination and screening process including an interview by members of the paramedic advisory committee.
- Candidates are subject to extensive background checks by the college, clinical sites, field internship sites, the National Registry of EMTs (NREMT) and the Montana Board of Medical Examiners (MT BOME).
- Compliance with all clinical and field internship site policies regarding Health Insurance Portability and Accountability Act (HIPAA) is mandatory.
- Placement is competitively based.
- Due to a class size limitation of 12 students, acceptance into the paramedic core courses is based on an application process and is competitive. This may result in a student needing more than two years to complete their degree requirements.

### Program Information

- Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, contact the AmeriCorps office at (406) 756-3908.
- A field experience is required for this program.
- Paramedicine is a demanding program whose graduates maintain high academic and professional standards.
- Students in the Paramedicine program must achieve at a minimum a "C-" or better grade in all non-core courses. Any grade of less than a "C-" will require retaking the course.
- Any course in the "ECP" series will require a grade of "B-" or better. Students must maintain an 80% grade average throughout the course of the core study to continue in the program.
- Students wishing to enroll in any ECP course, with the exception of ECP 130, must have submitted an application and received a letter of acceptance from the program director.
- Fees for this program are higher than average. Please see the program director for more details.
- The Paramedicine AAS program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

# Paramedicine, AAS

2015-2016

Commission on Accreditation of Allied Health Education  
Programs  
1361 Park Street  
Clearwater, FL 33756  
(727) 210-2350  
www.caahep.org

## **Additional Costs**

- ECP 200\* and ECP 206\* are on-line courses and additional fees apply.
- ECP 201\*, ECP 204\*, ECP 230\*, ECP 234\*, and ECP 250\* are hybrid courses and additional fees apply.
- The student is responsible for the purchase of their apparel for the clinical/field portion of the program.
- Students in the Paramedicine program must comply with Northwest Healthcare clinical policy agreement standards (which includes vaccinations/immunizations or appropriate lab work to ensure adequate protection from communicable diseases).

## **Opportunities after Graduation**

- EMT's and Paramedics held about 232,860 jobs across the nation in 2012. Most career EMTs and paramedics work in metropolitan areas, however there are also job opportunities in smaller cities, towns and rural areas. EMTs and paramedics are employed in a number of industries, including emergency medical services agencies (EMS), local governments, and hospitals. Employment for EMTs and paramedics is expected to increase 23.1% between 2012 and 2022, according to the U.S. Department of Labor. Job prospects should be good, particularly in cities and private ambulance services.

## **Advisor:**

Kris Long, BAS, NRP  
BC 126-D  
(406) 756-3901  
klong@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

Students who intend to seek a career in Parks, Tourism, and Recreation Management can complete most of the first two pre-professional years of study at FVCC to ready themselves for the junior year at **The University of Montana - Missoula**. The UM College of Forestry and Conservation Parks, Tourism, and Recreation Management option is designed to prepare students for professional positions developing and managing nature-based recreation experiences and park resources for public land management agencies, nonprofit organizations, and the nature-based tourism industry.

Students take courses that lead to an understanding of the basic ecological characteristics of recreational lands. Students also take courses dealing with human behavior and management.

### Associate of Science Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula in Parks, Tourism, and Recreation Management:

##### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4  
**OR**
- BIOO 105NL - Introduction to Botany Credit(s): 3 <sup>1</sup>
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4  
**OR**
- SOCI 101A - Introduction to Sociology Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3

**First Semester Total: 15-17**

##### Spring Semester

- BIOB 170N - Principles of Biological Diversity Credit(s): 3 <sup>2</sup> \*  
(or desired track requirement)
- ECNS 201B - Principles of Microeconomics Credit(s): 3  
**OR**
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3
- ENSC 245NL - Soils Credit(s): 4
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Humanities (H) Requirement Credit(s): 3

**Second Semester Total: 17**

##### Second Year - Fall Semester

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BIOE 172N - Introductory Ecology Credit(s): 3 <sup>3</sup>  
(or desired track electives)
- PTRM 201 - Recreation Management Credit(s): 2
- WRIT 121C - Introduction to Technical Writing Credit(s): 3 \*

- Humanities (H) Requirement Credit(s): 3  
**OR**

- Fine Arts (F) Requirement Credit(s): 3

**First Semester Total: 15**

##### Spring Semester

- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*

- Global Issues (G) Requirement Credit(s): 3 <sup>4</sup>  
**OR**

- Social Sciences (B) Requirement Credit(s): 3 <sup>4</sup>

- Desired track electives Credit(s): 6-9 <sup>5</sup>

**Second Semester Total: 13-16**

**Total Credits: 60-65 \*\***

<sup>1,2,3</sup> Students have a choice of one of these Biology classes, the latter two have a prerequisite of BIOB 160NL.

<sup>4</sup>This requirement will depend on which Economics course was taken.

<sup>5</sup> As course load and time allow, students could take more courses in their desired track.

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*As course load and time allows students could take more courses in their desired track.

#### University of Montana tracks for this program and recommended electives:

##### Recreation Resource Management Track:

- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- FORS 230 - Forest Fire Management Credit(s): 3
- GPHY 111NL - Introduction to Physical Geography Credit(s): 4
- GPHY 121GA - Human Geography Credit(s): 3
- SRVY 233 - Introduction to GIS for Natural Resource Assessment Credit(s): 4

##### Nature-Based Tourism Track:

- ANTY 101A - Anthropology and the Human Experience Credit(s): 3
- BIOE 172N - Introductory Ecology Credit(s): 3
- GPHY 111NL - Introduction to Physical Geography Credit(s): 4

##### Outdoor Recreation Services:

- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- GPHY 121GA - Human Geography Credit(s): 3

##### Advisor:

Dr. Christina Relyea  
RH 156  
(406) 756-3946  
crelyea@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

# Patient Relations Specialist, CT

2015-2016

*(Also offered at Lincoln County Campus)*

Patient Relations Specialists are very important to a medical office or hospital. The Patient Relations Specialist is often the first person with whom a patient interacts with over the phone or upon arriving at a medical office. Therefore, the Patient Relations Specialist is integral to shaping the patient's first impression of the medical practice, which could shape the patient/provider relationship for the long-term.

Patient Relations Specialists manage the flow of information in doctors' offices and other health care establishments. They set up appointments, organize paperwork and distribute information via mail, telephone and email. Patient Relations Specialists use desktop publishing programs and digital graphics to make spreadsheets, manage data and create documents on computers. They also communicate with vendors, inspect leased supplies and organize stockrooms and are often responsible for training new employees. Upon completion of this program, students will:

- Communicate professionally and effectively;
- Demonstrate professional work habits expected in the medical profession, including maintaining privacy;
- Format medical documents;
- Apply data to an electronic health record;
- Schedule patients, answer phones, organize records;
- Use current technology in a medical office;
- Use appropriate medical terminology; and
- Perform functions for a medical office such as scheduling appointments, filing and formatting medical documents.

## Required Courses

### Fall Semester

- AHMS 105 - Health Care Delivery Credit(s): 3
- AHMS 127 - Medical Document Formatting Credit(s): 2 \*
- AHMS 144 - Medical Terminology Credit(s): 3
- AMGT 110 - Keyboarding Credit(s): 1
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- CAPP 131 - Basic MS Office Credit(s): 2

**First Semester Total: 14**

### Spring Semester

- AH 117 - Medical Setting Customer Care and Privacy Credit(s): 1
  - AH 155 - Essentials of Electronic Health Records Credit(s): 1
  - AHMS 100 - Math Applications for Allied Health Professionals Credit(s): 3 \*
- OR**
- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*
  - AHMS 175 - Medical Law and Ethics Credit(s): 3
  - AHMS 220 - Medical Office Procedures Credit(s): 4 \*
  - AHMS 252 - Computerized Medical Billing Credit(s): 2

**Second Semester Total: 14-15**

**Total Credits: 28-29**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Admission Guidelines

- This program is an IBEST program. The goal of the IBEST programs at FVCC is for students to obtain an entry-level professional/technical certificate allowing students to continue on the professional/technical degree pathway.
- Minimum Compass placement test scores:  
Math: above 17  
Writing: above 38  
Reading: above 60

## Opportunities after Graduation

- The Montana Department of Labor and Industry projected that employment in the medical office professions would grow by 16.9% from 2008-2018. This is much higher than the 11% growth rate projected for all occupations. The aging of the population will continue to drive employment increases in all occupations related to health care.

## Advisors:

### Kalispell

Brenda Rudolph  
BSS 106  
(406) 756-3858  
brudolph@fvcc.edu

### Libby

Chad Shilling  
Room #105  
(406) 293-2721, ext. 233  
cshillin@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

This program will prepare students for entry-level positions in the field of payroll. It also provides opportunity for additional knowledge to be gained by those employed in bookkeeping, accounts payable, accounts receivable, billing or office assistance. Upon completion of this program, students will:

- Process payroll transactions in accordance with current payroll reporting requirements;
- Apply flexible solutions to accounting problems using spreadsheets;
- Communicate payroll information effectively within a business environment; and
- Understand types of business organizations.

### Required Courses

#### Fall Semester

- ACTG 201 - Principles of Financial Accounting Credit(s): 4
- BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*
- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- BMGT 215 - Human Resource Management Credit(s): 3
- CAPP 156 - MS Excel Credit(s): 3

**First Semester Total: 17**

#### Spring Semester

- ACTG 122 - Accounting and Business Decisions Credit(s): 2
- ACTG 124 - Payroll Accounting Applications Credit(s): 3
- ACTG 180 - Payroll Accounting Credit(s): 2 \*
- ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*
- BFIN 205 - Personal Finance Credit(s): 3

**Second Semester Total: 14**

**Total Credits: 31**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- This program is offered only at the Kalispell campus.
- All courses within this certificate must be taken for a letter grade. No course may be taken on a Satisfactory/Unsatisfactory (S/U) basis.

### Opportunities after Graduation

- This certificate will prepare students for entry-level payroll positions. Opportunities for advancement will grow with increased skills and experience.

#### Advisor:

Ronnie Laudati  
BSS 127  
(406) 756-3990  
rlaudati@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

## Personal Trainer, CAS

2015-2016

Personal Trainers are responsible for safe and effective exercise prescription in health and fitness club settings. Thorough understanding of anatomy, muscle function, exercise prescription, basic nutrition and fitness assessment provide personal trainers with the knowledge to safely structure exercise programs for clients. Upon completion of this program, students will:

- Learn how to motivate clients in exercise and healthy life choices;
- Gain confidence to create safe and effective exercise programs;
- Understand how the body works to create muscle and metabolize fat;
- Become knowledgeable in fitness assessment techniques; and
- Develop relationships with other fitness professionals for lifelong learning.

### Required Courses

#### Fall Semester

- BIOH 104N - Basic Human Biology Credit(s): 3
- BIOH 105L - Basic Human Biology Laboratory Credit(s): 1 \*
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- ECP 100 - First Aid and CPR Credit(s): 2
- HEE 220 - Introduction to Physical Education Credit(s): 3
- HTH 110 - Personal Health and Wellness Credit(s): 3

**First Semester Total: 15**

#### Spring Semester

- KIN 201 - Basic Exercise Prescription Credit(s): 3 \*
- KIN 203 - Functional Training Credit(s): 2
- KIN 215 - Fitness Assessment Techniques Credit(s): 3 \*
- M 090~ - Introductory Algebra Credit(s): 4 \*
- NUTR 221N - Basic Human Nutrition Credit(s): 3

**Second Semester Total: 15**

**Total Credits: 30**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- Graduates of this program will be prepared to sit for a national certification exam through the American Council on Exercise (ACE), American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA) or Aerobics and Fitness Association of America (AFAA).

### Opportunities after Graduation

- Fitness facilities require the expertise of proficient personal trainers. This is a growing industry with many job opportunities.

### Advisor:

Lori Elwell  
BC 123-D  
(406) 756-3899  
lelwell@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*



Pharmacy technicians assist and support pharmacists in providing health care and medications to patients. Pharmacy technicians often perform many of the same duties as the pharmacist. The Pharmacy Technology program is offered fall semester only. Upon completion of this program, students will:

- Demonstrate the pharmacy technician's scope of practice;
- Demonstrate the following:
  1. Accurate application of the five rights of pharmaceutical care: linking the right patient with the right prescriber, with the right drug, with the right directions, the right dose, and the right formulation;
  2. Professional interactions with the public, both face-to-face and via the phone;
  3. Appropriate and accurate calculations within a pharmacy setting;
  4. An understanding of quality control;
  5. An understanding of applicable state and federal laws;
  6. A knowledge of the top brand/generic drug names;
  7. Proper unit dose packaging;
  8. A knowledge of aseptic technique; and
  9. An understanding of the role of a technician in both hospital and community workplaces.
- Explain the correct protocol in the ordering, receiving, and documenting of drugs;
- Manage inventory control;
- Compare and contrast hospital and community pharmacy settings; and
- Understand patient privacy expectations.

### Required Courses

#### Fall Semester

- AH 117 - Medical Setting Customer Care and Privacy  
Credit(s): 1 <sup>1</sup>
- AHMS 144 - Medical Terminology Credit(s): 3 <sup>1</sup>
- BIOH 104N - Basic Human Biology Credit(s): 3 <sup>1</sup>
- CHMY 160 - Pharmacology Credit(s): 3 <sup>1</sup>
- PHAR 198 - Internship: Hospital and Community Pharmacy  
Practice Credit(s): 7 \* <sup>2</sup>

**Total Credits: 17**

#### Strongly Recommended Course:

- BIOH 105L - Basic Human Biology Laboratory Credit(s): 1 \*

<sup>1</sup>Course may be taken either as a prerequisite to or corequisite with PHAR 198\*. Check course description.

<sup>2</sup>Course requires acceptance into the Pharmacy Technology Program and requires instructor's consent.

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- Applications for formal acceptance into the Pharmacy Technology Certificate program are accepted once a year. Applications are available after February 1st and must be completed and returned by the third Friday in April. In order to be considered for acceptance into the Pharmacy Technology program, the student must have:
  1. Applied to and been admitted by Flathead Valley Community College.
  2. A high school diploma or GED and be 18 years of age.
  3. A grade of "C" or higher in M 090~ or COMPASS test placement into M 095~ or higher.
  4. COMPASS Reading Skills placement test score of 74 or higher OR a "C" or higher in a 100-level or above college course requiring college-level reading
  5. Proof of immunizations listed in application packet.
  6. Completion of background check as listed in application packet.
- Students accepted into the program must have a comprehensive background check and occupational health clearance.
- Compliance with Health Insurance Portability and Accountability Act (HIPAA) policies is mandatory.

### Program Information

- Pharmacy Technology is a certificate program offered once a year during the fall semester.
- The program offers both classroom and practical, clinical experiences.
- Students receiving full-time financial aid should inquire about special conditions that apply to this program.
- Graduates of this program will be prepared to sit for both the EXCPT and PTCB, national certification examinations.
- A non-refundable application fee of \$30.00 is due at the time of application for a background check.

### Opportunities after Graduation

- Pharmacies in both community businesses and hospitals require certified pharmacy technicians to assist pharmacists. Opportunities for advancement grow with increased skills and experience as well as increased levels of certification.

### Advisor:

Janice Alexander  
RH 107  
(406) 756-3948  
jalexand@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).*

# Pharmacy Transfer

2015-2016

The curriculum offered by the School of Pharmacy at **The University of Montana - Missoula** consists of a six-year program leading to the entry-level Doctor of Pharmacy degree. By earning the Associate of Science degree as prescribed, students will be academically prepared to enter the professional pharmacy program.

The application deadline for general admissions and to the Pharmacy program is February 15 of the year for which admission is requested. Admission to **The University of Montana - Missoula** does not guarantee admission to the Professional Pharmacy Program.

In addition to completing the courses listed, students must present a letter of recommendation and proof of having completed at least 20 hours of volunteer or paid service in a pharmacy at the time of application. Additionally, students must take the Pharmacy College Admissions Test (PCAT). The PCAT is usually given in September and January of each year. The test registration deadline typically occurs two months or more prior to the scheduled test dates.

Due to the PCAT exam subject areas, students are advised to have completed BIOB 160NL, BIOB 260NL\*, BIOH 211NL\*, CHMY 141NL\*, CHMY 143NL\* and CHMY 221NL\*, M 162M\* and STAT 216M\*, prior to taking the PCAT.

## Associate of Science Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- M 162M - Applied Calculus Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 17**

#### Spring Semester

- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*

- PSYX 100A - Introduction to Psychology Credit(s): 4  
**OR**
- SOCI 101A - Introduction to Sociology Credit(s): 3

- STAT 216M - Introduction to Statistics Credit(s): 4 \*

**Second Semester Total: 17-18**

#### Summer Semester \*\*

- Humanities (H) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3

**Third Semester Total: 6**

#### Second Year - Fall Semester

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*

- COMX 111C - Introduction to Public Speaking Credit(s): 3  
**OR**
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3

- PHSX 205NL - College Physics I Credit(s): 5 \*

**First Semester Total: 17**

#### Spring Semester

- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*

- ECNS 201B - Principles of Microeconomics Credit(s): 3  
**OR**
- ECNS 202GB - Principles of Macroeconomics Credit(s): 3

- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 15**

**Total Credits: 72-73**

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*An alternative is to take BIOH 201NL\* and BIOH 211NL\* in the summer and push these general education requirements into the second year.

#### Recommended Course:

- BCH 280N - Biochemistry Credit(s): 3 \*

#### Advisor:

Janice Alexander  
RH 107  
(406) 756-3948  
jalexand@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## 2015-2016

Physical Therapist Assistants (PTAs) provide physical therapy services under the direction and supervision of a licensed physical therapist. PTAs help people of all ages who have medical or health-related conditions that limit their ability to move or perform functional activities in their daily lives. PTAs work in a variety of settings including hospitals, outpatient clinics, home health, extended care facilities, schools, and sports facilities. Upon successful completion of this program, students will:

- Follow a plan of care established by a physical therapist and carry out physical therapy interventions in a safe, ethical and competent manner at entry-level;
- Demonstrate effective written, oral and nonverbal communication skills with patients, families/caregivers, health care providers, peers, third-party payers and the public;
- Recognize the need for continued personal and professional growth to ensure competence in current practices of physical therapy and a commitment to lifelong learning;
- Demonstrate behavioral expectations as established by the APTA in the Values-Based Behaviors for the Physical Therapist Assistant (January 2011);
- Participate as an effective member of the health care team and educate the health care community on the respective roles of the PT and PTA; and
- Show a personal commitment of health and wellness and dedication to service to the profession of physical therapy and the community.

### First Year

#### Required Prerequisite Courses

- AHMS 100 - Math Applications for Allied Health Professionals Credit(s): 3 \*
- OR**
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- AHMS 144 - Medical Terminology Credit(s): 3
- AHPT 105 - Introduction to Physical Therapist Assisting Credit(s): 3 <sup>1</sup>
- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- OR**
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- OR**
- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

#### Prerequisite Total: 26-27

<sup>1</sup>AHPT 105 is offered Spring Semester only.

## Physical Therapist Assistant, AAS

### Second Year - Fall Semester

- AHPT 101 - Physical Therapist Assisting I/Lab Credit(s): 5 \*
- AHPT 205 - Anatomy and Kinesiology for the PTA Credit(s): 6 \*
- AHPT 206 - Pathophysiology for the Physical Therapist Assistant Credit(s): 3 \*
- AHPT 210 - Clinical Experience I Credit(s): 3 \* <sup>1</sup>
- AHPT 218 - Therapeutic Exercise for the PTA Credit(s): 2 \*

#### First Semester Total: 19

### Spring Semester

- AHPT 201 - Physical Therapist Assisting II/Lab Credit(s): 5 \*
- AHPT 213 - Neurorehabilitation for the PTA Credit(s): 6 \*
- AHPT 215 - Introduction to Orthopedics Credit(s): 4 \*
- AHPT 220 - Clinical Experience II Credit(s): 4 \* <sup>1</sup>

#### Second Semester Total: 19

### Summer Semester

- AHPT 225 - Seminar and Project in Physical Therapist Assisting Credit(s): 3 \*
- AHPT 295 - Clinical: Experience III Credit(s): 4 \* <sup>1</sup>

#### Third Semester Total: 7

#### Total Credits: 71-72

<sup>1</sup>AHPT 210\* and AHPT 295\* include a 4-8 week clinical at an approved location.

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- Students must apply for select admission to the PTA program.
- Applications may be printed off of the FVCC PTA Program website or picked up in the Admissions Office or in the PTA Program Director's office, BC 123-B, beginning the second week in January and must be returned no later than the second Friday in May. Once applicants have met all the program criteria, selected students will be interviewed by PTA faculty. Students will be informed of their admission status into the PTA program by the second Friday in June.
- Admission to the program is based upon the following:
  1. High school diploma or GED
  2. Successful completion of the prerequisite first-year courses (a minimum grade of "C" must be earned in each class with an overall GPA of at least a 2.75)
  3. Clinical observation hours (minimum of 30 hours with at least 10 in an inpatient setting)
  4. An interview
  5. Essay
  6. Students admitted into the program are required to have a background check and drug screen and medical health insurance at the student's expense.
  7. Documentation of Immunization
  8. Evidence of CPR certification
  9. Two professional references

# Physical Therapist Assistant, AAS

2015-2016

## Program Information

- Prior to applying to the program, students must have completed or be in the process of completing the first year of prerequisite courses by the end of Spring Semester. Students may be advised to take BIOB 101NL, Discover Biology; BIOB 160NL, Principles of Living Systems; or CHMY 121NL \*, Introduction to General Chemistry in preparation for BIOH 201NL \*, Human Anatomy and Physiology I; prerequisite math courses in preparation for AHMS 100\*, Math Applications for Allied Health Professionals; and prerequisite English classes in preparation for WRIT 101W\*, College Writing I.
- Human Anatomy and Physiology I and II completed more than five years ago will require program permission to be considered as an applicant.
- Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, contact the AmeriCorps office at 756-3908.
- A grade of "C" or higher is required for ALL non-PT prerequisite courses, and a "C+" or higher is required within the established technical PTA curriculum in order to progress through the PTA program.
- Once a student is officially accepted or admitted into the PTA program, each PTA course must be passed with a grade of at least a "C+" for the student to continue in the program. If any course grade is less than a "C+" the student must withdraw from the PTA program (a "C" will not be accepted in technical PTA courses). Remediation will be attempted after filling out an Action Plan form to formulate a plan for improving performance in technical PTA courses. A failing grade will require that the course be repeated, and re-enrollment for courses being repeated will be on a space-available basis. Because PTA technical courses are offered only once per year, this could mean students must wait until the following year to petition for readmission to the program.
- The Physical Therapist Assistant Program at Flathead Valley Community College is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association (1111 North Fairfax Street, Alexandria, VA, 2314; phone: (703) 706-3245; email: accreditation@pata.org).
- Graduates of this program will be eligible and prepared to take the National Physical Therapist Assistant Licensing Exam.

## Additional Costs

- Once accepted into the PTA program at FVCC, students may incur costs associated with travel to various locations required for internships, one of which may be outside of the Flathead Valley.
- In addition, students will be assigned a program fee of \$300 per semester which covers durable lab items, licensure test, prep course, and miscellaneous clinical/lab program fees.

## Opportunities after Graduation

- According to the Bureau of Labor Statistics, employment is expected to grow much faster than average because of increasing demand for physical therapy services. Job prospects for physical therapist assistants are expected to be very good (an increase of 35% between 2008 and 2018).

## Advisors:

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BC 123-B  
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Julie Robertson  
BC 123-A  
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For general information, contact the Admissions Office:  
(406) 756-3847.

## 2015-2016

Physics is the study of the fundamental laws of nature from which we can understand and predict events in our world. It is fundamental to all of the sciences and it is especially fundamental to all of the engineering disciplines. With a degree in physics you can pursue a career in research and development, education or you can specialize in a branch of physics such as nuclear or optical. In many cases, physicists will pursue graduate degrees such as masters or Ph.Ds in order to successfully compete in the field.

FVCC offers 14 credit hours of calculus-based physics in three sequential courses which are the freshman/sophomore courses offered at universities all over the world. Topics range from mechanics to electricity and magnetism to modern physics. The courses are prerequisites for all of the advanced physics courses and all of the engineering courses. All of the physics courses are accompanied by laboratories and most meet the requirements of the general education core in natural science.

The following FVCC suggested courses of study are recommended for students interested in pursuing a physics major with transfer to either **Montana State University - Bozeman** or **The University of Montana - Missoula**. Students interested in beginning their work at FVCC toward a degree in physics should carefully consult the current catalog of the college or university to which they anticipate transferring in order to determine specific degree requirements.

### Suggested course of study for a transfer to Montana State University - Bozeman:

#### First Year

- M 171M - Calculus I Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*
- PHSX 222NL - Physics II (with Calculus) Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Elective (Recommend M 221M\*) Credit(s): 4
- Global Issues (G) Requirement Credit(s): 3

**First Year Total: 30**

#### Second Year

- M 273M - Multivariable Calculus Credit(s): 5 \*
- M 274M - Introduction to Differential Equations Credit(s): 5 \*
- PHSX 224 - Physics III Credit(s): 4 \*
- Communications (C) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Natural Science (NL) Non-physics Elective Requirement Credit(s): 4<sup>1</sup>
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 60**

<sup>1</sup>This elective requirement may be selected from Biology, Chemistry, or Geology depending on the student's area of interest.

\*Indicates prerequisite and/or corequisite needed. Check course description.

The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.

## Physics Transfer

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- CSCI 111 - Programming with Java I Credit(s): 4
- CSCI 121 - Programming with Java II Credit(s): 4 \*<sup>1</sup>
- OR**
- Electives Credit(s): 4
  
- M 171M - Calculus I Credit(s): 5 \*
- M 172M - Calculus II Credit(s): 5 \*
- PHSX 220NL - Physics I (with Calculus) Credit(s): 5 \*
- PHSX 222NL - Physics II (with Calculus) Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Year Total: 31**

#### Second Year

- M 273M - Multivariable Calculus Credit(s): 5 \*
  
- Electives Credit(s): 5
- OR**
- M 225M - Introduction to Discrete Mathematics Credit(s): 4 \*<sup>1</sup>
  
- PHSX 224 - Physics III Credit(s): 4
- Communications (C) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Global Issues (G) Requirement Credit(s): 3<sup>2</sup>
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 31-32**

**Total Credits: 62-63**

<sup>1</sup>If pursuing the Computational Physics option.

<sup>2</sup>One semester of a foreign language is required for a Physics major. However, if students don't complete their general education core at FVCC, two semesters of the same foreign language will be required at The University of Montana.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

James Boger, RH 170, (406) 756-3989, jbogger@fvcc.edu

For general information, contact the Admissions Office: (406) 756-3847.

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.



# Political Science Transfer

2015-2016

Political Science provides students with an opportunity to observe the world's political institutions, from local governments to international organizations. The focus is on the quality of political leadership, the values underlying public affairs, the political and legal processes used to make governmental decisions and insight into policies. A degree in political science prepares students for careers in government, law, public service, journalism, teaching, and management.

## Associate of Arts Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- PSCI 210B - Introduction to American Government Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 3
- Electives Credit(s): 3
- Electives Credit(s): 3
- Electives Credit(s): 3
- Fine Arts (F) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 30**

#### Second Year

- PSCI 250B - Introduction to Political Theory Credit(s): 3
  
- Communications (C) Requirement Credit(s): 3
- OR**
- Humanities (H) Requirement Credit(s): 3
- OR**
- Social Sciences (A or B) Requirement Credit(s): 3
- OR**
- Writing (W) Requirement Credit(s): 3
  
- Elective Credit(s): 5 <sup>1</sup>
- Elective Credit(s): 5 <sup>1</sup>
- Electives Credit(s): 3
- Electives Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**Second Year Total: 34**

**Total Credits: 64**

<sup>1</sup>Recommend FRCH 101GH & FRCH 102GH\* or GRMN 101GH & GRMN 102GH\* or ITLN 101GH & ITLN 102GH\* or RUSS 101GH & RUSS 102GH\* or SPNS 101GH & SPNS 102GH\* if pursuing an option in International Relations and Comparative Politics.

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

Robert Bauer  
BSS 124  
(406) 756-3860  
rbauer@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*



## 2015-2016

The focus of the practical nursing curriculum is to provide education leading to basic knowledge of the biological, physical, behavioral, psychological, and sociological sciences and of nursing procedures. This program uses standardized procedures in the observation and care of the ill, injured, and infirm, in the maintenance of health, in action to safeguard life and health, and in the administration of medications and treatments. Upon completion of this program, students will

- Demonstrate a caring presence and relationship-centered interactions to support the dignity and well-being of the client, family, and members of the inter-professional health team;
- Demonstrate nursing judgment and prioritization of care, incorporating evidence-based principles and the nursing process to contribute to the plan of care for a group of clients;
- Ensure safe quality care, utilizing standards of care for nursing procedures, delegation of care to unlicensed personnel, and documentation of health outcomes;
- Demonstrate therapeutic communication, reporting and documentation, and client education strategies;
- Demonstrate awareness of culturally diverse client health practices and diversity in the workplace; and
- Uphold the practical nursing scope of practice within the ethical, legal and regulatory frameworks of nursing, demonstrating personal, workplace, and professional nursing behaviors reflecting self-awareness, integrity, and lifelong growth and development.

### Required Courses

#### First Year - Fall Semester (Required prerequisites):

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- M 121M - College Algebra Credit(s): 3 \*<sup>1</sup>
- WRIT 101W - College Writing I Credit(s): 3 \*

#### First Semester Prerequisite Total: 14

#### Spring Semester (Required prerequisite courses):

- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- NRSNG 100 - Introduction to Nursing Credit(s): 1 \*
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4

#### Second Semester Prerequisite Total: 12

#### Second Year - Fall Semester

- NRSNG 130 - Fundamentals of Nursing Credit(s): 7 \*
- NRSNG 135 - Nursing Pharmacology Credit(s): 3 \*
- NRSNG 138 - Gerontology for Nursing Credit(s): 2 \*
- NRSNG 144 - Core Concepts of Mental Health Nursing Credit(s): 2 \*

#### First Semester Total: 14

## Practical Nursing, AAS

### Spring Semester

- NRSNG 140 - Core Concepts of Adult Nursing Credit(s): 7 \*
- NRSNG 142 - Core Concepts of Maternal Child Nursing Credit(s): 3 \*
- NRSNG 148 - Leadership Issues Credit(s): 2 \*

#### Second Semester Total: 12

#### Total Credits: 52

### Strongly recommended course:

- NRSNG 106 - Nursing Assistant Course Credit(s): 5 \*

<sup>1</sup>Additional acceptable math courses are as follows:

- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- M 152M - Precalculus Algebra Credit(s): 3 \*
- M 153M - Precalculus Trigonometry Credit(s): 4 \*
- M 171M - Calculus I Credit(s): 5 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- Applications for formal acceptance into the practical nursing program are accepted once a year. Applications are available after March 1 and must be completed and returned by the last Friday in April. In order to be considered for acceptance into the practical nursing program, the student must have:
  1. Completed or be currently enrolled in and complete all of the following required prerequisite courses with a grade of "C" or higher ("C-" will not be accepted) BIOH 201NL\*, BIOH 211NL\*, CHMY 121NL\*, NUTR 221N, M 121M\*, NRSNG 100\*, PSYX 100A, and WRIT 101W\*;
  2. Selective GPA of at least 2.75 (out of 4.0 scale) in all prerequisite courses;
  3. Completion of the human anatomy and physiology courses and chemistry must be within five years of admission date. Individuals who have completed an associate's or bachelor's degree may request evaluation by the nursing program director for a possible exception;
  4. Please see Nursing Program Information Packet at [www.fvcc.edu/nursing](http://www.fvcc.edu/nursing) for required immunizations;
  5. Must be in degree status at FVCC with all records required on file;
  6. Signed application and \$20.00 non-refundable processing fee receipt; and
  7. Once admitted, students must provide proof of current personal health insurance policy (FVCC Student Health Center does not meet this requirement.), complete a background check, and have a TB test to finalize the acceptance process.



## ***Program Information***

- This is a demanding program whose graduates will be required to actively participate in and subscribe to the legal and ethical tenets of the discipline.
- Once a student has applied and been accepted into the practical nursing program, each course can only be attempted once and must be passed with a grade of at least a "C+" for the student to continue in the program.
- The practical nursing program is approved by the Montana State Board of Nursing.
- Graduates of this program are eligible to apply to take the National Council of State Board of Nursing's Examination for Practical Nurses (NCLEX-PN). After passing the test, the Montana Board of Nursing grants licensure to practice as a Licensed Practical Nurse in the State of Montana.

## ***Opportunities after Graduation***

- There is an immediate need for practical nurses in a variety of health care facilities in the Flathead Valley. Employment includes clinics, dialysis centers, and long term care.

## **Nursing Program Director:**

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## **Advisors:**

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## **For general information, contact:**

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## 2015-2016

The University of Minnesota Dental Exchange Program is a cooperative agreement between the State of Montana and the University of Minnesota, which provides a limited number of openings in the Minnesota School of Dentistry for residents of Montana. Montana funded students pay resident tuition and fees at the University of Minnesota. If accepted by the **University of Minnesota**, students will be ranked for the available state funding by the School of Dentistry. In general, students are expected to earn a Bachelor's degree prior to attending dental school; however, exemplary candidates may be admitted after completion of 90 credits, with 26 credits at the upper division level. In addition, candidates are required to sit for the DAT exam and have dental practice observation hours.

### Associate of Science Degree

**Suggested course of study for a transfer to most pre-dental programs:**

#### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3

**First Semester Total: 18**

#### Spring Semester

- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- M 153M - Precalculus Trigonometry Credit(s): 4 \*
- WRIT 201W - College Writing II Credit(s): 3 \*

**Second Semester Total: 20**

## Pre-Dental Transfer

#### Second Year - Fall Semester

- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- PHSX 205NL - College Physics I Credit(s): 5 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4

- Humanities (H) Requirement Credit(s): 3
- OR**

- Fine Arts (F) Requirement Credit(s): 3

**First Semester Total: 17**

#### Spring Semester

- BCH 280N - Biochemistry Credit(s): 3 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- PHSX 207NL - College Physics II Credit(s): 5 \*
- Social Sciences (B) Requirement Credit(s): 3

**Second Semester Total: 16**

**Total Credits: 71**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisor:

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RH 109  
(406) 756-3895  
dlong@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## Pre-Medicine Transfer

2015-2016

At FVCC, students are able to complete the first two years of most pre-medicine professional programs. Pre-medical studies can include dentistry, medicine, optometry, podiatry, and several other associated fields. Given the wide range of pre-medical programs and their requirements, it is crucial for students to initiate and maintain close contact with advisors and institutions to which they anticipate transferring.

Medical schools often accept a wide range of bachelor degrees from four-year colleges or universities. The course of study suggested below for pre-medicine is a program designed to prepare students for transfer to a four-year college or university and to prepare students for success on medical school entrance examinations.

Montana does not have a medical school. However, in addition to medical school opportunities outside the state, Montana residents are served by the WWAMI ("whammy") program. WWAMI is a partnership between the University of Washington School of Medicine and the state of Montana. After completing their bachelor's degree, students in the program spend their first year of medical school at Montana State University - Bozeman's WWAMI site. Tuition paid by Montana students in the program is the same as that paid by Washington state residents. Students wishing to obtain additional information regarding the WWAMI program should go to [www.montana.edu/wwwwami/](http://www.montana.edu/wwwwami/).

Pre-chiropractic students may also follow the suggested course of study for pre-medicine. However, additional humanities, social sciences, and fine arts courses are typically required for entrance to a chiropractic school. Pre-chiropractic students should work closely with advisors to ensure all entrance requirements are met.

Pre-physician assistant students applying to Rocky Mountain College's PA program should be aware that students must complete one year minimum full-time hands-on health care experience with direct patient contact prior to applying for admission into the program.

### Associate of Science Degree

#### Suggested course of study for a transfer to most pre-medicine programs:

##### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4 <sup>1</sup>
- OR**
- BIOB 256NL - Introduction Biology: Cells to Organisms Credit(s): 4 <sup>\*2</sup>
  
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
  
- M 162M - Applied Calculus Credit(s): 5 <sup>\*3</sup>
- OR**
- M 171M - Calculus I Credit(s): 5 <sup>\*3</sup>
  
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 17**

##### Spring Semester

- BIOB 170N - Principles of Biological Diversity Credit(s): 3 <sup>\*1</sup>
- and**
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 <sup>\*1</sup>
- OR**
- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 <sup>\*2</sup>
  
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- STAT 216M - Introduction to Statistics Credit(s): 4 \*

**Second Semester Total: 18**

##### Second Year - Fall Semester

- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- PHSX 205NL - College Physics I Credit(s): 5 \*
- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**First Semester Total: 19**

##### Spring Semester

- BCH 280N - Biochemistry Credit(s): 3 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- PHSX 207NL - College Physics II Credit(s): 5 \*
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 19**

**Total Credits: 73**

<sup>1</sup>For students transferring to UM - Missoula.

<sup>2</sup>For students transferring to MSU - Bozeman. For other schools, see an advisor to find out the required Biology sequence.

<sup>3</sup> Math sequence depends upon undergraduate program and medical schools have varying math requirements.

\*Indicates prerequisite and/or corequisite needed. Check course description.

**Associate of Science Degree****Suggested course of study for a transfer to Palmer College of Chiropractic in pre-chiropractic:****First Year - Fall Semester**

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- M 152M - Precalculus Algebra Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 15****Spring Semester**

- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- PHSX 205NL - College Physics I Credit(s): 5 \*

**Second Semester Total: 17****Second Year - Fall Semester**

- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- PHSX 207NL - College Physics II Credit(s): 5 \*
- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3

**First Semester Total: 16****Spring Semester**

- CHMY 223NL - Organic Chemistry II Credit(s): 5 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

- Social Sciences (B) Requirement Credit(s): 3

**Second Semester Total: 15****Total Credits: 63 \*\***

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\*If time permits, students should consider taking the following:

- Communications (C) Credit(s): 3
- OR**
- Humanities (H) Credit(s): 3
- OR**
- Social Sciences (A or B) Credit(s): 3
- OR**
- Electives Credit(s): 3
- Electives (with Palmer College's approval) Credit(s): 20

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For general information, contact the Admissions Office:  
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*The information on all transfer programs is subject to change.  
Students should see their advisor to explore other possibilities not specifically listed in the program.*

**Transfer Notes for Associate of Science Degree Students**

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## Pre-Nursing Transfer

In 2006, a Model Curriculum for Nursing Education was developed and implemented at two-year colleges in the state of Montana. This curriculum was developed to facilitate individuals moving from an AAS in Practical Nursing to an Associate degree in Registered Nursing without repeating courses completed at the Practical Nursing level. This is referred to as academic progression in nursing, or a bridge program.

The curriculum is virtually the same on all of the two year campuses, with the same course numbering and sequencing. There are a minimum of 6 semesters to complete the Associate of Science Registered Nursing degree. It may take longer for some students who need to take pre-requisites for some of the Required Courses (i. e. Math, Chemistry, and Anatomy and Physiology).

The following 26 credits of prerequisite general education courses must be completed (semesters one and two) or in progress by the end of the semester in which a student applies to a Nursing program, whether it is for the Associate of Applied Science Practical Nursing or the Associate of Science Registered Nursing degree program.

### Model Nursing Curriculum for Two-Year Colleges

#### Semesters One and Two:

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- M 121M - College Algebra Credit(s): 3 \* <sup>1</sup>
- NRSNG 100 - Introduction to Nursing Credit(s): 1 \*
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*

**Total Credits: 26**

<sup>1</sup>OR M 115M\* Probability and Linear Mathematics, OR M 152M\*, Precalculus Algebra, OR M 153M\*, Precalculus Trigonometry, OR M 171M\*, Calculus I.

\*Indicates prerequisite and/or corequisite needed. Check course description.

Once a student has been accepted into a nursing program, they will follow semesters three and four to complete an AAS in Practical Nursing, and then semesters five and six to complete an ASN Registered Nursing degree.

## 2015-2016

### Associate of Applied Science Practical Nursing Option

#### Model Nursing Curriculum for Two-Year Colleges

##### Semesters Three and Four:

- NRSNG 130 - Fundamentals of Nursing Credit(s): 7 \*  
(60 Lecture/90 Lab Hours)
- NRSNG 135 - Nursing Pharmacology Credit(s): 3 \*  
(45 Lecture Hours)
- NRSNG 138 - Gerontology for Nursing Credit(s): 2 \*  
(15 Lecture/45 Clinical Hours)
- NRSNG 140 - Core Concepts of Adult Nursing Credit(s): 7 \*  
(60 Lecture/135 Clinical Hours)
- NRSNG 142 - Core Concepts of Maternal Child Nursing Credit(s): 3 \*  
(30 Lecture/45 Clinical Hours)
- NRSNG 144 - Core Concepts of Mental Health Nursing Credit(s): 2 \*  
(30 Lecture Hours)
- NRSNG 148 - Leadership Issues Credit(s): 2 \* <sup>1</sup>  
(15 Lecture/45 Clinical Hours)

**Total Credits: 26**

**(255 Lecture/90 Lab/ 270 Clinical Hours)**

<sup>1</sup>NRSNG 148\* is taken only by those students who will be exiting the program as LPN's.

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Associate of Science RN Program Curriculum

#### Model Nursing Curriculum for Two-Year Colleges

##### Semesters Five and Six:

- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
- NRSNG 250 - LPN to RN Transition Credit(s): 3 <sup>1</sup> \*  
(45 Lecture Hours)
- NRSNG 252 - Complex Care Maternal/ Child Client Credit(s): 3 \*  
(30 Lecture/45 Clinical Hours)
- NRSNG 254 - Complex Care/Mental Health Client Credit(s): 2 \*  
(15 Lecture/45 Clinical Hours)
- NRSNG 258N - Principles of Pathophysiology Credit(s): 4 \*  
(60 Lecture Hours)
- NRSNG 262 - Complex Care Needs - Adult Client Credit(s): 4 \*  
(30 Lecture/90 Clinical Hours)
- NRSNG 265 - Advanced Clinical Skills Lab Credit(s): 1 \*  
(30 Lab Hours)
- NRSNG 266 - Managed Client Care Credit(s): 4 \*  
(30 Lecture/90 Clinical Hours)
- SOCI 101A - Introduction to Sociology Credit(s): 3  
(45 Lecture Hours)

**Total Credits: 28**

**(300 Lecture/60 Lab/270 Clinical Hours)**

<sup>1</sup>Students who have completed the LPN program at Billings, Missoula, Great Falls, Helena, or Kalispell and wish to enter into the RN level courses must complete NRSNG 250\* and apply for acceptance into an ASN program.

\*Indicates prerequisite and/or corequisite needed. Check course description.



## 2015-2016

## Pre-Nursing Transfer

The following curriculum prepares students for transfer to the BSN program at Montana State University - Bozeman. MSU also has an accelerated BSN program for students who have already earned a Bachelor's degree in another field.

All prerequisites and one of the program requirements may be taken at FVCC. Once the student has transferred to MSU, 5 more semesters (one semester of lower division nursing classes and 4 semesters of upper division nursing classes) are necessary to finish the degree.

MSU offers its nursing curriculum in 5 Montana sites including Kalispell (others are Bozeman, Billings, Great Falls, and Missoula). Once accepted for an upper division placement, students may complete their lower division nursing classes in Bozeman or at the placement site the preceding semester. Two of the lower division nursing classes are offered online. Online lower division classes can also be taken during the summer. A cohort of 8 students is accepted twice a year into the Kalispell site. There are two application periods for upper division placement: June 15-August 1st for those starting the lower division classes the following Spring Semester and November 15th-January 1st for those starting the lower division classes the following fall semester. MSU's Nursing application is an online only application that becomes available on the first date of these two application periods.

Because of the competitive nature of all nursing programs, it is important for students to maintain a high grade point average in their Nursing prerequisite classes. Students should be aware that MSU restricts how many different courses may be repeated and how many times the same course can be repeated.

Students transferring from schools outside of Montana need to verify with one of the designated advisors as to whether or not their courses will satisfy any of the prerequisite courses.

**The BSN program at MSU requires a background check prior to the application deadline.**

### Bachelor of Science Degree

#### Suggested course of study for transferring to Montana State University - Bozeman

##### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
  - CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
  
  - COMX 111C - Introduction to Public Speaking Credit(s): 3
  - OR**
  - COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
  
  - WRIT 101W - College Writing I Credit(s): 3 \*
- First Semester Total: 14**

##### Spring Semester

- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- SOCI 101A - Introduction to Sociology Credit(s): 3

##### Second Semester Total: 18

##### Summer Semester

- Humanities (H) Requirement Credit(s): 3

##### Third Semester Total: 3

##### Second Year - Fall Semester

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (B) Requirement Credit(s): 3

##### First Semester Total: 16

##### Spring Semester

- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- NRSG 258N - Principles of Pathophysiology Credit(s): 4 \*
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*

##### Second Semester Total: 15

##### Total Credits: 66

\*Indicates prerequisite and/or corequisite needed. Check course description.

Contact Information for Area Nursing Programs

##### Advisors:

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Lori Elwell, BC 123-D, (406) 756-3899, [lrelwell@fvcc.edu](mailto:lrelwell@fvcc.edu)

Dr. Sue Justis, BC 123-C, (406) 756-3866, [sjustis@fvcc.edu](mailto:sjustis@fvcc.edu)

Adam Wenz, RH 106, (406) 756-3616, [awenz@fvcc.edu](mailto:awenz@fvcc.edu)

For general information, contact the Admissions Office: (406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

## Pre-Nursing Transfer

2015-2016

The following curriculum prepares students for transfer to the ASN program at Salish Kootenai College (SKC). SKC also has an RN-BSN completion program that allows a student with an ASN to complete a Bachelor's degree.<sup>1</sup>

Prerequisites and some of the program requirements may be taken at FVCC. Though courses taken at FVCC will lighten the load, it is still necessary to spend two years at SKC completing the nursing curriculum. Students should check with the SKC catalog on the college website for specific details and deadline dates in the application process.

Nursing programs and core requirements are very specific for each transfer institution. Students should check carefully with their advisor and SKC to make sure that appropriate courses are taken.

Due to the competitive nature of all nursing programs, it is important for students to maintain a high grade point average in their Nursing prerequisite classes. It is also important for students to be aware of additional factors that may give students an extra advantage for placement. For example, at SKC extra preference is given to applicants based on their heritage (i.e. documented Tribal members), current certification as a Certified Nurse Assistant (recommended but not required), and the number and grade point average of general education courses completed at the time of application.

**The ASN program at SKC requires a background check prior to the application deadline.**

### Associate of Science Degree

#### Suggested course of study for transferring to Salish Kootenai College:

##### Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CAPP 106 - Short Courses: Computer Applications Credit(s): 1 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 16**

##### Spring Semester

- AHMS 144 - Medical Terminology Credit(s): 3
- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
- M 152M - Precalculus Algebra Credit(s): 3 \*
- NRSB 106 - Nursing Assistant Course Credit(s): 5 \*
- PSYX 230A - Developmental Psychology Credit(s): 3 \*

**Second Semester Total: 18**

##### Second Year - Fall Semester

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
  
- LSH 261H - Introduction to the Humanities Origins and Influences I Credit(s): 4
- OR**
- PHL 101H - Introduction to Philosophy: Reason and Reality Credit(s): 3

- Social Sciences (B) Requirement Credit(s): 3

**First Semester Total: 13-14**

##### Spring Semester

- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- NUTR 221N - Basic Human Nutrition Credit(s): 3
- WRIT 201W - College Writing II Credit(s): 3 \*
- Global Issues (G) Requirement Credit(s): 3

- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 16**

**Total Credits: 63-64**

<sup>1</sup>Students pursuing both the ASN and BSN at SKC should take M 115M\*, STAT 216M\* and SOCI 101A.

\*Indicates prerequisite and/or corequisite needed. Check course description.

Contact Information for Area Nursing Programs

##### Advisors:

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*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

pathological, surgical, or traumatic conditions. The profession is also concerned with health, wellness and prevention of disability in an effort to promote maximal use of an individual's capacities and reduce their risk of illness. Physical therapists are trained to evaluate neurological, musculoskeletal, cardiovascular, respiratory, and skin disorders. Exercise and physical agents, such as heat, cold, light, electricity, and massage are used to promote healing, relieve pain, maintain or restore strength, and improve joint range of motion and functional capabilities.

Physical therapy is practiced in diverse settings, including hospitals, clinics, skilled nursing facilities, sports medicine programs, public schools, and private practices. Legislation in Montana permits direct public access to physical therapists for evaluation and treatment without a physician referral. Even so, physical therapists remain committed to functioning as an integral member of the health care team.

Physical therapy programs have evolved to be professional programs earning a Doctorate Degree. Students wishing to apply to the professional physical therapy program at **The University of Montana - Missoula** may select any major for their undergraduate degree as long as they have the noted prerequisites successfully completed. All prerequisite courses must be taken for a traditional letter grade and must be completed with a grade of "C" or better. For specific lower division requirements that will be needed at other professional physical therapy programs consult the website of a school that may be of interest to you.

### Associate of Science Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**First Semester Total: 17**

##### Spring Semester

- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- Global Issues (G) Requirement Credit(s): 3

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 18**

##### Second Year - Fall Semester

- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- ECP 100 - First Aid and CPR Credit(s): 2
- PHSX 205NL - College Physics I Credit(s): 5 \*
- PSYX 230A - Developmental Psychology Credit(s): 3 \* <sup>1</sup>

**First Semester Total: 14**

##### Spring Semester

- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- PHSX 207NL - College Physics II Credit(s): 5 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*

**Second Semester Total: 16**

**Total Credits: 65**

<sup>1</sup> PSYX 230A\* is recommended but PSYX 240A\*, PSYX 260A\*, or SOCI 101A would also be acceptable prerequisites.

\*Indicates prerequisite and/or corequisite needed. Check course description.

##### Note:

To be eligible to apply to the professional physical therapy program, a student can complete any Bachelor's program as long as the following prerequisites have been completed: Natural Science, Statistics and Behavioral Social Sciences.

To be eligible to apply to the professional physical therapy program, students are required to have 80 hours of observation with a licensed physical therapist. Students may want to pursue these hours during their prerequisite course of study.

##### Advisors:

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For general information, contact the Admissions Office:  
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*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not*

##### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer

*specifically listed in the program.*

# Pre-Veterinary Medicine Transfer

2015-2016

The State of Montana participates in the WICHE exchange program, providing Montana residents options for Veterinary Medicine. Montana students are eligible to apply through WICHE to Colorado State University, Oregon State University and Washington State University. In general, students are expected to earn a Bachelor's degree prior to attending veterinary school; however, exemplary candidates may be admitted after completion of 90 credits, including an additional six credits of humanities, social sciences and the arts beyond the AS requirement at FVCC. Completion of a Bachelor's degree removes the requirement for the additional six credits of humanities, social sciences and arts. In addition, candidates are required to sit for the GRE exam. Requirements below fulfill pre-requisites for **Colorado State University** and **Washington State University**. **Oregon State University** requires several courses in addition to those shown below.

## Associate of Science Degree

### Suggested course of study for a transfer in Pre-Veterinary Medicine:

#### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- CHMY 141NL - College Chemistry I Credit(s): 5 \*
- M 162M - Applied Calculus Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 17**

#### Spring Semester

- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- CHMY 143NL - College Chemistry II Credit(s): 5 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*

**Second Semester Total: 17**

#### Second Year - Fall Semester

- BIOB 275N - General Genetics Credit(s): 4 \*
- CHMY 221NL - Organic Chemistry I Credit(s): 5 \*
- PHSX 205NL - College Physics I Credit(s): 5 \*
- Humanities (H) Requirement Credit(s): 3

**First Semester Total: 17**

#### Spring Semester

- BCH 280N - Biochemistry Credit(s): 3 \*
- CHMY 223NL - Organic Chemistry II Credit(s): 5

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

- Global Issues (G) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Semester Total: 20**

**Total Credits: 71**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisors:

Dr. Mirabai McCarthy  
RH 143  
(406) 756-3624  
mmccarthy@fvcc.edu

Dr. Ruth Wrightsman  
RH 132  
(406) 756-3878  
rwrightsman@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

The field of psychology prepares students for positions in the correction, substance abuse, welfare, and mental health fields, and for entrance into various graduate programs. Many careers in psychology require graduate study beyond the bachelor degree. By completing the Associate of Arts degree as prescribed below, students will be ready to complete their bachelor's degree at **The University of Montana - Missoula, Montana State University - Bozeman**, or the **University of Great Falls**, either transferring to their campus or staying at FVCC via the **University of Great Falls' TELECOM** program.

### Associate of Arts Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives Credit(s): 6
- Humanities (H) Requirement Credit(s): 3
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3
- PSYX Elective Credit(s): 3

**First Year Total: 32**

##### Second Year

- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- Electives Credit(s): 6 <sup>1</sup>
- Fine Arts (F) Requirement Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- PSYX Electives Credit(s): 6 <sup>1</sup>
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 62**

<sup>1</sup> MSU will accept PSYX 233, PSYX 240A\*, PSYX 250NA\*, PSYX 260A\* which are all taught at the 300 level there. Students will need to take additional upper division courses to replace those taken at FVCC. Consult the MSU Psychology website to plan accordingly.

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Associate of Arts Degree

#### Suggested course of study for a transfer to the University of Great Falls:

##### First Year

- CAPP 120 - Introduction to Computers Credit(s): 3
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- LIT 110H - Introduction to Literature Credit(s): 3
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- PSYX 100A - Introduction to Psychology Credit(s): 4
- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- RLST 100G - Introduction to the Study of Religion Credit(s): 3
- OR**
- RLST 220G - Interpretations of American Religion Credit(s): 3
- SOCI 101A - Introduction to Sociology Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3

- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**First Year Total: 31**

##### Second Year

- PSCI 210B - Introduction to American Government Credit(s): 3
- PSYX 240A - Fundamentals of Abnormal Psychology Credit(s): 3 \*
- PSYX 260A - Fundamentals of Social Psychology Credit(s): 3 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 <sup>\*1</sup>
- WRIT 201W - College Writing II Credit(s): 3 \*
- Electives Credit(s): 6 <sup>1,2</sup>
- Fine Arts (F) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 4 <sup>2,3</sup>
- Natural Science (NL or N) Requirement Credit(s): 3-4 <sup>2,3</sup>

**Second Year Total: 32-33**

**Total Credits: 63-64**

<sup>1</sup>Students could take M 145M\* and a 100-level UGF Statistics course instead.

<sup>2</sup>SOCI 215\* and SOCI 260 are required for a Human Services concentration.

<sup>3</sup>GPY 111NL is not acceptable as a Lab Science at UGF.

\*Indicates prerequisite and/or corequisite needed. Check course description.

# Psychology Transfer

2015-2016

## Associate of Arts Degree

### Suggested course of study for a transfer to The University of Montana - Missoula:

#### First Year

- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- OR**
- M 162M - Applied Calculus Credit(s): 5 \*
- OR**
- M 171M - Calculus I Credit(s): 5 \*
  
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 6
- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**First Year Total: 31-33**

#### Second Year

- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- PSYX 233 - Fundamentals of Psychology of Aging Credit(s): 3
- PSYX 240A - Fundamentals of Abnormal Psychology Credit(s): 3 \*
- PSYX 250NA - Fundamentals of Biological Psychology Credit(s): 3 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Electives Credit(s): 3
- Electives Credit(s): 3
- Electives Credit(s): 3
- Fine Arts (F) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 31**

**Total Credits: 62-64**

\*Indicates prerequisite and/or corequisite needed. Check course description.

#### Advisors:

Dr. Ivan Lorentzen  
BSS 103  
(406) 756-3864  
ilorentz@fvcc.edu

Jerry Lundgren  
BSS 126  
(406) 756-3868  
jlundgre@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change.  
Students should see their advisor to explore other possibilities not specifically listed in the program.*



## 2015-2016

Radiologic Technologists are skilled in creating images of the human body with the use of ionizing radiation. The radiologic technologist student is trained in diagnostic x-ray procedures and fluoroscopy, digital radiography, surgery, trauma and pediatrics, with plenty of hands-on practical experience. They are also educated in patient care, x-ray equipment physics, and are responsible for radiation safety. Upon completion of this program, students will:

- Perform as a vital member of the medical team by providing high quality, diagnostic images;
- Excel in providing patient care, and demonstrate knowledge about current radiation standards;
- Possess the potential to continue education in computed tomography, nuclear medicine, ultrasound, MRI, interventional radiography, or radiation therapy; and
- Be qualified to work as a radiologic technologist upon passing the state registry exam and applying for state licensure.

### Required Courses

#### Required prerequisite courses:

- AHMS 144 - Medical Terminology Credit(s): 3
- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- M 095~ - Intermediate Algebra Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

#### Prerequisite Total: 18

#### First Year - Fall Semester

- AHMS 100 - Math Applications for Allied Health Professionals Credit(s): 3 \*
- AHXR 101 - Patient Care in Radiology Credit(s): 2 \*
- AHXR 110 - Radiographic Procedures I Credit(s): 2 \*
- AHXR 115 - Radiographic Principles I Credit(s): 2 \*
- AHXR 195 - Radiographic Clinical: I Credit(s): 4 \*

#### First Semester Total: 13

#### Spring Semester

- AHXR 108 - Introduction to Radiologic Physics Credit(s): 3 \*
- AHXR 111 - Radiographic Procedures II Credit(s): 2 \*
- AHXR 116 - Radiographic Principles II Credit(s): 2 \*
- AHXR 195 - Radiographic Clinical: II Credit(s): 5

#### Second Semester Total: 12

#### Summer Semester

- AHXR 295 - Radiographic Clinical: III Credit(s): 8 \*

#### Third Semester Total: 8

## Radiologic Technology, AAS

### Second Year - Fall Semester

- AHXR 210 - Radiographic Procedures III Credit(s): 2 \*
- AHXR 225 - Radiobiology/Radiation Protection Credit(s): 2 \*
- AHXR 295 - Radiographic Clinical: IV Credit(s): 8 \*

#### First Semester Total: 12

### Spring Semester

- AHXR 211 - Radiographic Procedures IV Credit(s): 2 \*
- AHXR 270 - Radiographic Registry Review Credit(s): 2 \*
- AHXR 295 - Radiographic Clinical: V Credit(s): 8 \*

#### Second Semester Total: 12

#### Total Credits: 75

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- Students must apply for select admission to this program.
- Applications are available after January 15 and must be completed and returned by the last working day in February.
- Admission to the program is based upon the following:
  1. High school diploma or GED
  2. Evidence of academic achievement in the five prerequisite courses (a minimum of "C" must be earned in each class)
  3. A well-written essay
  4. Positive references
  5. An interview
- Students admitted into the program are required to have a background check, proof of current CPR license, and medical health insurance at the student's expense. In addition, applicants with a felony after age 18 will not be accepted into the program.

### Program Information

- When applying to the Radiologic Technology program, students must have completed or be in the process of completing the following classes OR their equivalent by the end of Spring Semester: AHMS 144, BIOH 201NL\* and BIOH 211NL\*, M 095~\*, WRIT 101W\*. Students may be advised to take BIOB 101NL - Discover Biology or BIOB 160NL - Principles of Living Systems in preparation for Human Anatomy and Physiology I, prerequisite math courses in preparation for M 095~ - Intermediate Algebra\* and prerequisite English classes in preparation for WRIT 101W - College Writing I\*. A grade of "C" or higher is required for ALL prerequisite courses.
- BIOH 201NL - Human Anatomy and Physiology I\* and BIOH 211NL - Human Anatomy and Physiology II\* completed five or more years ago will require program permission for transfer credit.
- Students may be exempt from taking M 095~\* with appropriate score on the COMPASS placement test, but must take a math class at a higher level.
- Admitted students may contact the Financial Aid Office to learn about scholarship opportunities, including the Ellen and John MacMillan Endowed and the Dustin Petersen Memorial.
- Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, contact the AmeriCorps office at (406) 756-3908.
- Students in the Radiologic Technology program must earn a "C" or better in ALL classes in the two-year program.

## Radiologic Technology, AAS

2015-2016

- Graduates of this program will be eligible and prepared to take the registry examination administered by the American Registry of Radiologic Technologists (ARRT).
- Graduates must apply for licensure with the state of Montana prior to employment.

### ***Opportunities after Graduation***

- Employment is projected to grow most rapidly in medical offices, clinics and diagnostic imaging centers. Radiologic technologists have the opportunity for advancement with experience and specialization in areas such as radiation treatment, ultrasound and nuclear medicine.

### **Advisors:**

Colleen Bench  
(406) 751-5767  
cbench@krmc.org

Kris Long  
BC 126-D  
(406) 756-3901  
klong@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

## 2015-2016

The Registered Nursing program prepares graduates to function as members and leaders of health care teams in various health care environments. Upon completion of the Associate of Science (ASN)-Registered Nursing curriculum, students will:

- Demonstrate caring relationships and advocacy to promote self-determination, integrity, and growth of the client, family, and members of the inter-professional health team;
- Demonstrate nursing judgment and clinical decision making, incorporating evidence-based practices and the nursing process in the delivery of safe, holistic nursing care;
- Manage and coordinate safe quality client care and monitor health outcomes in collaboration with the inter-professional health team;
- Apply effective communication strategies and health technology to support interpersonal relationships, collaboration, documentation, and education of clients, families, and health team members;
- Advocate for cultural competence and diversity in the workplace; and
- Practice within the ethical, legal and regulatory frameworks of nursing, demonstrating personal, workplace, and professional nursing behaviors reflecting self-awareness, integrity, and lifelong growth and development.

### Required Courses

#### Fall Semester

- NRSNG 250 - LPN to RN Transition Credit(s): 3 \*

**First Semester Total: 3**

#### Spring Semester

- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*  
 NRSNG 252 - Complex Care Maternal/Child Client Credit(s): 3 \*  
 NRSNG 254 - Complex Care/Mental Health Client Credit(s): 2 \*  
 NRSNG 258N - Principles of Pathophysiology Credit(s): 4 \*

**Second Semester Total: 13**

#### Summer Semester

- NRSNG 262 - Complex Care Needs - Adult Client Credit(s): 4 \*  
 NRSNG 265 - Advanced Clinical Skills Lab Credit(s): 1 \*  
 NRSNG 266 - Managed Client Care Credit(s): 4 \*  
 SOCI 101A - Introduction to Sociology Credit(s): 3

**Third Semester Total: 12**

**Total Credits: 28**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- Entry into the ASN program is by application only. The current application process is available at [www.fvcc.edu/nursing](http://www.fvcc.edu/nursing).
- A grade of "C+" or better is required for all NRSNG courses in the ASN program. A grade of "C" is not acceptable.
- A grade of "C" or better is required for all non-nursing courses (BIOM 250NL\*, SOCI 101A).
- The application process requires that an applicant must be a graduate of a State Board of Nursing approved Practical Nursing program and eligible for licensure, or have an unencumbered Montana Practical Nurse license, and have successfully completed the following coursework with a "C" or better: BIOH 201NL\*; BIOH 211NL\*; CHMY 121NL\*; M 121M\*, M 115M\*, M 152M\*, M 153M\*, or M 171M\*; NRSNG 100\*; NUTR 221N; PSYX 100A, and WRIT 101W\*.

### Program Information

## Registered Nursing, ASN

- See [www.fvcc.edu/nursing](http://www.fvcc.edu/nursing) for required immunizations.
- The focus of the Associate of Science Nursing curriculum is to offer education leading to the knowledge that supports the ASN RN to provide direct care to clients, individuals or groups in a variety of structured settings with clear policies and procedures.
- Completion of an Associate of Science Nursing degree in Registered Nursing does not guarantee FVCC's or the Montana University System's general education core is fulfilled.
- Once admitted, students must provide proof of a current personal health insurance policy (FVCC Student Health Center does not meet this requirement), complete a background check, and have a TB skin test to finalize the acceptance process.
- Graduates of the program are eligible to apply to take the National Council of State Boards of Nursing's examination for Registered Nurses (NCLEX-RN). After passing the test, the Montana Board of Nursing grants licensure to practice as a Registered Nurse in the state of Montana.
- Program is approved by Montana State Board of Nursing.

### Opportunities after Graduation

- Individuals who successfully complete the ASN program and pass the NCLEX-RN exam will find many employment opportunities available to them in a wide variety of health care settings in Northwest Montana and other locations.
- A graduate of the program may choose to continue their education by pursuing a Bachelor's or Master's degree in nursing.

### Nursing Program Director:

Myrna Ridenour, MSN, RN, BC  
BC 102-A  
(406) 756-3997  
[mridenour@fvcc.edu](mailto:mridenour@fvcc.edu)

### Advisors:

Diane Bailey, MS, RN  
BC 102-B  
(406) 756-3626  
[dbailey@fvcc.edu](mailto:dbailey@fvcc.edu)

Erika DeCree, MS, APRN  
BC 102-D  
(406) 756-3628  
[edecree@fvcc.edu](mailto:edecree@fvcc.edu)

### For general information, contact:

Cathy Fabel, Nursing Program Assistant  
BC 102  
(406) 756-3385  
[cfabel@fvcc.edu](mailto:cfabel@fvcc.edu)

# Resource Conservation Transfer

2015-2016

The challenging and rapidly evolving field of environmental conservation requires broad training and the ability to integrate and communicate across disciplines. Students who intend to seek a career in Resource Conservation can complete most of the first two pre-professional years of study at FVCC to ready themselves for the junior year at **The University of Montana - Missoula**. Resource Conservation at the UM College of Forestry and Conservation prepares students for the diverse opportunities that exist in environmental conservation, natural resource management, and sustainable livelihoods and communities. There are different curricular tracts at UM within the Resource Conservation major. Close consultation with a Forestry or Natural Resource advisor is recommended.

## Associate of Science Degree

### Suggested course of study for a transfer to The University of Montana - Missoula in Resource Conservation:

#### First Year - Fall Semester

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**First Semester Total: 16**

#### Spring Semester

- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- NRSM 271GN - Conservation Ecology Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Semester Total: 16**

#### Second Year - Fall Semester

- BIOE 172N - Introductory Ecology Credit(s): 3 \*
- BIOE 173L - Introductory Ecology Laboratory Credit(s): 1 \*
- SRVY 233 - Introduction to GIS for Natural Resource Assessment Credit(s): 4
- WRIT 121C - Introduction to Technical Writing Credit(s): 3 \*
- Electives Credit(s): 3

**First Semester Total: 14**

#### Spring Semester

- ENSC 245NL - Soils Credit(s): 4
- FORS 251 - Photogrammetry and Remote Sensing Credit(s): 3 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- WILD 270N - Wildlife Habitat and Conservation Credit(s): 3

- Humanities (H) Requirement Credit(s): 3

**OR**

- Fine Arts (F) Requirement Credit(s): 3

**Second Semester Total: 17**

**Total Credits: 63 \*\***

\*Indicates prerequisite and/or corequisite needed. Check course description.

### \*\*Recommended electives to further broaden students' educational experience:

- BIOC 235NL - Rocky Mountain Flora Credit(s): 3
- FORS 152 - Sustainable Silviculture Credit(s): 4
- FORS 232 - Forest Insects and Diseases Credit(s): 3 \*
- SRVY 245 - GPS Mapping Credit(s): 2 \*

#### Advisor:

Dr. Christina Relyea  
RH 156  
(406) 756-3946  
crelyea@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.

## 2015-2016

(Also offered at Lincoln County Campus)

This program is designed to give the student a high level of proficiency as a small business manager or entrepreneur. Upon completion of this program, students will:

- Read, understand, explain, and use basic financial statements to make management and marketing decisions;
- Use Microsoft Office, Word, and Excel as related to business applications;
- Understand and apply basic business law applications to daily business operations, organizational issues and personnel;
- Explain the advantages and disadvantages of various organizational formats available to the small business owner;
- Develop a basic business plan, marketing plan and financial projections as commonly used in business;
- Explain the importance of Human Resource Management to the overall management of an organization, including job analysis, job descriptions, job specifications, hiring, training, and employee appraisal;
- Explain agencies available to assist the small business owner such as Small Business Administration (SBA), Small Business Development Center (SBDC), Service Corps of Retired Executives (SCORE), and Active Corps of Executives (ACE); and
- Explain the pros and cons of various funding options available for starting or expanding a business.

### Required Courses

#### First Year - Fall Semester

ACTG 201 - Principles of Financial Accounting Credit(s): 4

BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*

**OR**

M 115M - Probability and Linear Mathematics Credit(s): 3 \*

**OR**

M 145M - Mathematics for the Liberal Arts Credit(s): 3 \*

BMGT 205C - Professional Business Communication Credit(s): 3 \*

BMIS 211 - Introduction to Business Decision Support Credit(s): 4

COMX 115C - Introduction to Interpersonal Communication Credit(s): 3

**OR**

COMX 150CF - Video Communication Credit(s): 3

**First Semester Total: 17-18**

#### Spring Semester

ACTG 202 - Principles of Managerial Accounting Credit(s): 4 \*

BFIN 205 - Personal Finance Credit(s): 3

BMGT 210 - Small Business Entrepreneurship Credit(s): 3

BMGT 215 - Human Resource Management Credit(s): 3

BMKT 225 - Marketing Credit(s): 3

Elective (ACTG, BADM, CAPP, CSCI) Credit(s): 2

**Second Semester Total: 18**

## Small Business Management, AAS

### Second Year - Fall Semester

ACTG 180 - Payroll Accounting Credit(s): 2 \*

BFIN 220 - Understanding Financial Statements Credit(s): 2 \*

BGEN 235 - Business Law Credit(s): 4

BMGT 235 - Management Credit(s): 3

ECNS 201B - Principles of Microeconomics Credit(s): 3

Electives Credit(s): 2-3

**First Semester Total: 16-17**

### Spring Semester

ACTG 150 - Accounting on Microcomputers Credit(s): 3 \*

BFIN 222 - Small Business Budgeting Credit(s): 1 \*

BFIN 224 - Cash Flow Analysis Credit(s): 2 \*

BGEN 280 - Business Planning Credit(s): 3 \*

BGEN 299 - Capstone Credit(s): 3 \*

ECNS 202GB - Principles of Macroeconomics Credit(s): 3

**Second Semester Total: 15**

**Total Credits: 66-68**

### Optional Course Offering:

BGEN 298 - Internship Credit(s): 3 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- An internship is an option for this program. Students must apply for placements for this program the prior semester. See internships for more information and application deadlines.
- The program is designed to give the student a high level of proficiency as a small business manager/owner.
- The program provides students with the basics of Small Business Entrepreneurship.

### Opportunities after Graduation

- This degree prepares graduates for entry-level positions in small business management or provides the basics for starting one's own business. Graduates may gain experience managing others' businesses and then open their own.
- Self employment is the fastest growing income sector in Flathead County. Small businesses employ over 70% of all employees in Montana and create 50% of all new jobs in the U.S.

### Advisors:

#### Kalispell

Connie Hitchcock

BSS 107

(406) 756-4329

chitchcock@fvcc.edu

#### Libby

Chad Shilling

Room #105

(406) 293-2721, ext. 233

cshilling@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.



# Sociology Transfer

2015-2016

Sociology is largely concerned with the study of American society and how it operates today. Graduates may work in fields including sociology, social work, criminal justice, teaching and a wide range of social service professions.

The **University of Montana - Missoula** offers a Bachelor of Arts degree in Sociology with options in General Sociology, Criminology, Rural and Environmental Change, and Inequality and Social Justice. **Montana State University - Bozeman** offers a Bachelor of Science degree in Sociology with emphases in Anthropology, Justice Studies, and Sociology. **University of Great Falls** offers a Bachelor of Arts degree in Sociology with concentrations in chemical dependency counseling and human services.

## Associate of Arts Degree

### Suggested course of study for a transfer to Montana State University - Bozeman:

#### First Year

- SOCI 101A - Introduction to Sociology Credit(s): 3
  - WRIT 101W - College Writing I Credit(s): 3 \*
  
  - Communications (C) Requirement Credit(s): 3
  - OR**
  - Humanities (H) Requirement Credit(s): 3
  - OR**
  - Social Sciences (A or B) Requirement Credit(s): 3
  - OR**
  - WRIT 201W - College Writing II Credit(s): 3 \*
  
  - Communications (C) Requirement Credit(s): 3
  - Electives Credit(s): 3
  - Electives Credit(s): 3
  - Electives Credit(s): 3
  - Fine Arts (F) Requirement Credit(s): 3
  - Humanities (H) Requirement Credit(s): 3
  - Natural Science (NL) Requirement Credit(s): 3
- First Year Total: 30**

#### Second Year

- Electives Credit(s): 12 <sup>1</sup>
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Mathematics (M) Requirement Credit(s): 3
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3
- SOCI Elective Credit(s): 3

**Second Year Total: 30**

**Total Credits: 60**

<sup>1</sup>SOCI 201 is not required but is a lower division Sociology elective.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Associates of Arts Degree

### Suggested course of study for a transfer to the University of Great Falls (on-line):

#### First Year

- CAPP 120 - Introduction to Computers Credit(s): 3
  - COMX 111C - Introduction to Public Speaking Credit(s): 3
  
  - LIT 110H - Introduction to Literature Credit(s): 3
  - OR**
  - PHL 101H - Introduction to Philosophy: Reason and Reality Credit(s): 3
  
  - M 115M - Probability and Linear Mathematics Credit(s): 3 \* <sup>2</sup>
  - PSYX 100A - Introduction to Psychology Credit(s): 4
  
  - RLST 100G - Introduction to the Study of Religion Credit(s): 3
  - OR**
  - RLST 220G - Interpretations of American Religion Credit(s): 3
  
  - SOCI 101A - Introduction to Sociology Credit(s): 3
  - WRIT 101W - College Writing I Credit(s): 3 \*
  - Fine Arts (F) Requirement Credit(s): 3
  - Natural Science (NL) Requirement Credit(s): 3-4 <sup>1</sup>
- First Year Total: 31-32**

#### Second Year

- PSYX 260A - Fundamentals of Social Psychology Credit(s): 3 \*
  - SOCI 201 - Social Problems Credit(s): 3
  - SOCI 215 - Introduction to Sociology of the Family Credit(s): 3 \*
  - SOCI 260 - Introduction to Juvenile Delinquency Credit(s): 3
  - STAT 216M - Introduction to Statistics Credit(s): 4 <sup>2</sup> \*
  - WRIT 201W - College Writing II Credit(s): 3 \*
  - Electives Credit(s): 3
  
  - Humanities (H) Requirement Credit(s): 3
  - OR**
  - Fine Arts (F) Requirement Credit(s): 3
  
  - Natural Science (NL or N) Requirement Credit(s): 3-4
  - Social Sciences (B) Requirement Credit(s): 3-4
- Second Year Total: 31-33**

**Total Credits: 62-65**

<sup>1</sup> GPHY 111NL is not acceptable as a Lab Science at UGF.

<sup>2</sup> Students can take M 145M\* and a 100-level UGF Statistics course instead.

\*Indicates prerequisite and/or corequisite needed. Check course description.



**Associate of Arts Degree****Suggested course of study for a transfer to The University of Montana - Missoula:****First Year**

- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
- SOCI 101A - Introduction to Sociology Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Communications (C) Requirement Credit(s): 3
- Electives Credit(s): 9 <sup>1</sup>
- Fine Arts (F) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 30****Second Year**

- SOCI 220GA - Race, Gender and Class Credit(s): 3
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
  
- Communications (C) Requirement Credits(s): 3  
**OR**
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Social Sciences (A or B) Requirement Credit(s): 3  
**OR**
- WRIT 201W - College Writing II Credit(s): 3 \*
  
- Electives Credit(s): 9 <sup>1</sup>
  
- Global Issues (G) Requirement Credit(s): 3  
**OR**
- Elective (if completed SOCI 220GA) Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3  
**OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 31****Total Credits: 61**

<sup>1</sup> Any HS, PSYX, or SOCI courses are recommended to prepare the student for upper division courses.

See Criminal Justice Transfer for the suggested program for those seeking the criminology option.

**Advisor:**

Ami Mezahav  
BSS 121  
(406) 756-4183  
amezahav@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change.  
Students should see their advisor to explore other possibilities not specifically listed in the program.*

# Substance Abuse Counseling, AA

2015-2016

This program is designed to meet the academic requirement for the State of Montana's Licensed Addiction Counselor. This program is designed to provide the student with the most up-to-date knowledge in the field of addictions. Upon completion of this program, students will:

- Understand addiction
  1. Understand a variety of models and theories of addiction and other problems related to substance abuse.
  2. Describe the behavioral, psychological, physical health, and social effects of psychoactive substances on the user and significant others.
- Understand treatment
  1. Describe the philosophies, practices, policies, and outcomes of the most generally accepted and scientifically supported models of treatment, recovery, relapse prevention, and continuing care for addiction and other substance-related problems.
  2. Recognize the importance of family, social networks, and community systems in the treatment and recovery process.
- Apply knowledge
  1. Understand the established diagnostic criteria for substance use disorders and describe treatment modalities and placement criteria within the continuum of care.
  2. Provide treatment services appropriate to the personal and cultural identity and language of the client.
- Demonstrate professionalism
  1. Understand the importance of self-awareness in one's personal, professional, and cultural life.
  2. Understand the addiction professionals' obligations to adhere to ethical and behavioral standards of conduct in the helping relationship.

## Required Courses

### First Year

- BIOB 101NL - Discover Biology Credit(s): 4
- OR**
- BIOB 160NL - Principles of Living Systems Credit(s): 4
  
- CAS 140 - Addiction and Diversity Credit(s): 1
- CAS 242 - Fundamentals of Substance Abuse and Addictions Credit(s): 3 \*
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- PSYX 150 - Drugs and Society Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- Fine Arts (F) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3 <sup>1</sup>
- Mathematics (M) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3 <sup>2</sup>

**First Year Total: 33**

### Second Year

- CAS 248 - Substance Abuse Counseling II Credit(s): 3 \*
- CAS 250 - Assessment and Case Management, Processes Credit(s): 2 \*
- HS 210 - Case Management Credit(s): 2 \*
- HS 250 - Interviewing/Crisis Intervention Credit(s): 4 \*
- HS 279 - Legal, Ethical, and Professional Issues in Human Services Credit(s): 3 \*
- PSYX 240A - Fundamentals of Abnormal Psychology Credit(s): 3 \*
- PSYX 250NA - Fundamentals of Biological Psychology Credit(s): 3 \*
- PSYX 264 - Fundamentals of Group Dynamics Credit(s): 3 \*
- SOCI 220GA - Race, Gender and Class Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3 <sup>1</sup>
- OR**
- Fine Arts (F) Requirement Credit(s): 3 <sup>1</sup>

**Second Year Total: 29**

**Total Credits: 62**

### Recommended electives as course loads and time permit:

- PSYX 230A - Developmental Psychology Credit(s): 3 \*
- PSYX 260A - Fundamentals of Social Psychology Credit(s): 3 \*
- PSYX 275 - Fundamentals of Behavior Modification Credit(s): 3 \*
- SOCI 101A - Introduction to Sociology Credit(s): 3

<sup>1</sup>Recommend PHL 110H and SPNS 101GH for a total of 8 credits.

<sup>2</sup> Recommend ECNS 101GB or PSCI 210B.

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- After graduating with this option, the student must complete 1,000 hours of supervised work experience in a state-licensed substance abuse program in order to apply for the Montana Licensed Addiction Counselor's test. This requirement is subject to change.

### Advisor:

Leanne Parker  
BSS 129  
(406) 756-3871  
lparker@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

## 2015-2016

This program combines business background with heavy emphasis on computer skills including spreadsheets, database, word processing, and some computer graphics. Upon completion of this program, students will:

- Demonstrate mastery in computer software skills including Word, Excel, QuickBooks, Dreamweaver, Web 2.0, and Social Media;
- Demonstrate speed and accuracy skills in data entry;
- Demonstrate interpersonal skills while working with teams, with customers, and with managers;
- Demonstrate basic marketing skills and marketing businesses on the web;
- Communicate using various mediums, including writing, verbal, and technology;
- Apply basic accounting functions to small business applications including Accounts Receivable, Accounts Payable, Payroll and QuickBooks; and
- Demonstrate basic knowledge of the law and business.

### Required Courses

#### First Year - Fall Semester

- ACTG 101 - Accounting Procedures I Credit(s): 4
- AMGT 113 - Keyboarding and Document Processing Credit(s): 3 \*
- AMGT 125 - Editing Skills for Information Processing Credit(s): 2 \*
- AMGT 150 - Customer Service Strategies Credit(s): 3
- BMGT 237 - Human Relations in Business Credit(s): 3
- BMIS 211 - Introduction to Business Decision Support Credit(s): 4

**First Semester Total: 19**

#### Spring Semester

- ACTG 150 - Accounting on Microcomputers Credit(s): 3 \*
  - AMGT 210 - Office Success Strategies Credit(s): 3 \*
  
  - BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 \*
- OR**
- M 115M - Probability and Linear Mathematics Credit(s): 3 \*
  
  - BMGT 205C - Professional Business Communication Credit(s): 3 \*
  - BMKT 225 - Marketing Credit(s): 3
  - CAPP 110 - Short Courses: MS Outlook Credit(s): 1

**Second Semester Total: 16-17**

## Support Professional, AAS

### Second Year - Fall Semester

- BGEN 235 - Business Law Credit(s): 4
- CAPP 154 - MS Word Credit(s): 3
- CAPP 156 - MS Excel Credit(s): 3
- ITS 280 - Computer Repair and Maintenance Credit(s): 3
- MART 231 - Interactive Web I Credit(s): 4

**First Semester Total: 17**

### Spring Semester

- BMKT 130 - Search Engine Marketing Credit(s): 3
- BMKT 131 - Introduction to Social Media Marketing Credit(s): 3 \*
- BMKT 132 - Writing for Web Marketing Credit(s): 3 \*
- COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
- ITS 221 - Project Management Credit(s): 3 \*

**Second Semester Total: 15**

**Total Credits: 67-68**

### Optional Course Offering:

- AMGT 298 - Internship Credit(s): 3 \*

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Program Information

- All Required Courses within this degree program must be taken for a letter grade. Only electives may be taken on a Satisfactory/Unsatisfactory (S/U) basis.
- Microsoft Office User Specialist (MOUS) Certification for Word and Excel is recommended for this degree program. The certification examination is given at FVCC by appointment. See your advisor for details.
- An internship is an option for this program. Students must apply for placements for this program the prior semester. See Internships for more information and application deadlines.

### Opportunities after Graduation

- Support Professionals, receptionists, clerks and data entry keyers work in organizations of every type. Major employers are educational institutions, insurance and temporary worker agencies. Support Professionals can advance to jobs such as word processing trainers, supervisors or managers.

### Advisor:

Brenda Rudolph  
BSS 106  
(406) 756-3858  
brudolph@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

Surgical technologists are integral members of the surgical team, working closely with surgeons, anesthesiologists, registered nurses and other personnel in delivering patient care before, during, and after surgery. This is a physically demanding job that requires standing for extended periods of time and the ability to perform under pressure in emergency situations. The technologist may be exposed to communicable diseases, unpleasant sights, odors, and hazardous materials.

Some responsibilities of a surgical technologist include preparation of the operating room, instruments, supplies and equipment prior to the surgical procedure. During the surgical procedure, the technologist passes instruments, supplies and sutures to the surgeon and surgical assistant. The surgical technologist must maintain a strong knowledge of human anatomy, allowing them to anticipate the needs of the surgeon in an ever-changing environment.

Upon completion of this program, students will have the attitude, knowledge, and skills necessary to enter the profession of surgical technology. The specific goals are as follows:

- Work with surgeons, anesthesiologists, nurses and other health professionals in providing direct or indirect patient care while demonstrating positive work ethic, professionalism and appropriate interpersonal skills in the surgical setting;
- Organize surgical instrumentation, supplies and equipment in an efficient manner while utilizing principles of aseptic technique for physical preparation and maintenance of the surgical environment;
- Perform under pressure in stressful and emergency surgical situations;
- Demonstrate understanding of biomedical sciences, technology and the concepts, principles and skills of surgical technology as it applies to the patient-focused events that occur in the operating room;
- View self as a contributing member to the discipline and a valuable participant in meeting health needs of the community; and
- Sit for the national certification examination to become a Certified Surgical Technologist (CST).

The pre-surgical technology courses are to be completed before applying to the program but do not have to be taken in one semester.

## Required Courses

### Pre-surgical Technology Courses

- AHMS 100 - Math Applications for Allied Health Professionals Credit(s): 3 \*
- AHMS 144 - Medical Terminology Credit(s): 3
- AHST 101 - Introduction to Surgical Technology Credit(s): 3
- BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 \*
- BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 \*
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- PSYX 100A - Introduction to Psychology Credit(s): 4
- WRIT 101W - College Writing I Credit(s): 3 \*

**Pre-surgical Technology Total: 27**

## Surgical Technology Curriculum

### Spring Semester

- AHST 116 - Surgical Techniques I with Lab Credit(s): 6 \*
- AHST 201 - Surgical Procedures I Credit(s): 4 \*
- BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 \*

**Spring Semester Total: 14**

### Fall Semester

- AHST 202 - Surgical Procedures II Credit(s): 5 \*
- AHST 216 - Surgical Techniques II Credit(s): 3 \*
- AHST 250 - Surgical Clinical I Credit(s): 4 \*
- BIOL 170 - Disease Processes/Pharmacology Credit(s): 4 \*

**Fall Semester Total: 16**

### Spring Semester

- AHST 207 - Professional Development and Leadership Credit(s): 3 \*
- AHST 255 - Advanced Surgical Clinical Credit(s): 10 \*

**Spring Semester Total: 13**

**Total Credits: 70**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Admission Guidelines

To be admitted, applicants must submit:

- FVCC college application;
- Surgical Technology application;
- Official transcript from high school or GED certificate;
- Official transcript from other colleges or vocational schools attended (upon being accepted);
- Experience in health care, if any;
- Well-written essay and references;
- Interview with faculty; and
- Successfully passed all pre-surgical technology courses.

**Admitted students have the following additional requirements that must be completed before the start of the second year:**

- Verification of measles, mumps, and rubella;
- TB skin test or chest x-ray;
- History of chicken pox or vaccination;
- Proof of immunization with the vaccine for Hepatitis B;
- Background check will be conducted at the student's expense;
- A current personal health insurance policy; and
- Current Heart Saver/AED/CPR certification.

The above requirements associated with costs will be at the personal expense of the student, in addition to tuition and books.

## 2015-2016

## Surgical Technology, AAS

### **Program Information**

- This program is a two-year curriculum, which includes both classroom (didactic) and hands-on training (clinical) intended to prepare students to assist in surgical operations. Application deadline for the spring Surgical Technology Program is the first Friday in October. Late and incomplete applications will not be considered.
- Many students need preliminary math, biology and English courses before being accepted into the Required Courses. These courses may increase the total number of program credits. Students should review their math, English and biology placement before planning their full program schedules.
- Students enrolled in this program may participate in a Service Learning opportunity, which could qualify them to be eligible to receive an education award. For more information, contact the AmeriCorps office at (406) 756-3908.
- This program has been designed in accordance with the 6th Ed. Core Curriculum for Surgical Technology and functions within the current standards and guidelines set forth by the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC-STSA), sponsored by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).
- Only students who have attended CAAHEP and ABHES accredited program are eligible to take the national certification exam administered by the National Board of Surgical Technology and Surgical Assisting (NBSTSA). Passing the national examination qualifies the individual as a Certified Surgical Technologist (CST®). The Association of Surgical Technologists (AST) recommends that all surgical technologists obtain this certification.
- Students in the Surgical Technology program must earn a grade of "C" (2.0) or better in ALL classes in the two-year program.
- Students enrolled in any of the core classes, "AHST," are required to maintain an 80% grade average throughout the course of the core study to continue in the program.
- This is a demanding program. Graduates will have maintained high academic and professional standards.
- Human Anatomy and Physiology I and II completed five or more years ago will require program director's permission.

### **Opportunities after Graduation**

- Employment for surgical technologists is projected to grow 24% by 2016, much faster than the average for all occupations as the volume of surgeries increase. The number of surgical procedures is expected to rise as the population grows and ages.
- Hospitals will continue to be the primary employer of surgical technologist, although much faster employment growth is expected in offices of physicians and in outpatient care centers, including ambulatory surgical centers. Job opportunities will be best for technologists who are certified.

### **Advisor:**

Robert Blackston  
BC 126-A  
(406) 756-4328  
rblackston@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.



# Surveying, AAS

2015-2016

This program is designed to prepare students to enter the land surveying profession as surveying technicians, instrument persons, drafters, and/or office technicians. The philosophy of the program is that all students are potentially seeking their professional land surveyors license. Success in the surveying program requires an above average proficiency in math and strong English skills. Graduates of the Surveying program will:

- Be able to function in field work activities including operating current instrumentation, searching for field evidence, taking and reducing field notes, and staking construction projects and boundary monumentation;
- Be able to function in office activities including calculator operations, computer data entry and analysis, manual and computer drafting of various survey-related drawings, and records research;
- Possess sufficient background knowledge and skills to enter a geographic information system entry-level position; and
- Possess sufficient theoretical and practical surveying knowledge to sit for the Land Surveyor Intern exam.

## Required Courses

### First Year - Fall Semester

- CAPP 131 - Basic MS Office Credit(s): 2
- M 095~ - Intermediate Algebra Credit(s): 4 \*
- M 123 - Surveying Mathematics I Credit(s): 2 \* 1
- SRVY 152 - Surveying Graphics Credit(s): 2
- SRVY 241 - Introduction to Surveying for Land Surveyors I Credit(s): 5 \*
- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 18**

### Spring Semester

- M 124 - Surveying Mathematics II Credit(s): 3 \* 1
- SRVY 242 - Introduction to Surveying for Land Surveyors II Credit(s): 5 \*
- SRVY 255 - Surveying Calculations Credit(s): 3 \*
- SRVY 262 - Public Land Survey System Credit(s): 3 \*
- PHSX 110 - Applied Physics Credit(s): 4 \* 2
- OR**
- PHSX 126NL - General Science: Physical Science Credit(s): 5 \* 2

**Second Semester Total: 18-19**

### Second Year - Fall Semester

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- SRVY 268 - CAD for Surveying Profession Credit(s): 4 \*
- SRVY 270 - Legal Principles in Surveying I Credit(s): 5 \*
- SRVY 283 - GIS for Survey Analysis Credit(s): 4

**Third Semester Total: 16**

### Spring Semester

- SRVY 246 - Introduction to GPS for Surveyors Credit(s): 2 \*
- SRVY 247 - Survey-grade GPS Control and Analysis Credit(s): 3 \*
- SRVY 265 - Surveying Laws and Land Division Credit(s): 3 \*
- SRVY 271 - Legal Principles in Surveying II Credit(s): 2 \*
- SRVY 273 - Route Surveying Credit(s): 2 \*
- SRVY 275 - Analytic Photogrammetry and Remote Sensing Credit(s): 3 \*
- SRVY 280 - Land Surveying Computers Credit(s): 2 \*

**Fourth Semester Total: 17**

**Total Credits: 70**

## Additional Professional Development Program Offering:

- SRVY 290 - Undergraduate Research: Projects in GIS Credit(s): 2 \*

<sup>1</sup>Another math sequence, which includes coursework through Calculus, may be substituted.

<sup>2</sup>Another physical science class may be substituted with advisor approval.

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Program Information

- This program meets the educational requirements for licensing set by the Montana Board of Professional Engineers and Professional Land Surveyors.
- Success in the surveying program requires an above average proficiency in math and strong English skills. A minimum grade of "C-" must be achieved in all required surveying and math courses.
- Out-of-state students from Alaska, Arizona, Colorado, Hawaii, Idaho, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming are eligible to apply for reduced tuition under the terms of the Western Undergraduate Exchange (WUE). Contact Marlene Stoltz in the Admissions Office at (406) 756-3846 for details.
- Students lacking a proficient background in algebra, geometry, trigonometry, and/or English, will be advised to complete the survey degree program in three years. A typical first year of this three-year program is shown below:

### First Year - Fall Semester

- CAPP 106 - Short Courses: Computer Applications Credit(s): 1 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- M 090~ - Introductory Algebra Credit(s): 4 \*
- SRVY 152 - Surveying Graphics Credit(s): 2

- WRIT 095~ - Developmental Writing Credit(s): 3 \*
- OR**

- WRIT 101W - College Writing I Credit(s): 3 \*

**First Semester Total: 13**

### Spring Semester

- CAPP 131 - Basic MS Office Credit(s): 2
- M 095~ - Intermediate Algebra Credit(s): 4 \*
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives (CAPP, CSCI, DDSN) Credit(s): 4-10

**Second Semester Total: 10-19**

## Opportunities after Graduation

- Upon completion of this degree, the Land Surveyor Intern (LSI) exam can be taken. In Montana, an additional six years of experience under the supervision of a licensed surveyor is required before the actual licensing (LS) exam can be taken. Students seeking to become licensed in other states should verify specific state educational and experience requirements.

## Advisor:

Dave Dorsett, PLS  
RH 164  
(406) 756-3913  
ddorsett@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.



## 2015-2016

The program in Theatre Arts Studies helps to prepare students for transferring to a four-year educational institution with a major in Theatre Arts. Theatre Arts Studies provides the student with a broad liberal art education and a general focus in theatre while completing the General Education Requirements.

The student is strongly encouraged to discuss course articulation with the advisor to facilitate transfer to **The University of Montana - Missoula** or other four-year institutions, as some coursework may be accepted as only a theatre elective.

### Associate of Arts Degree

#### Suggested course of study for a transfer in Theatre Arts:

##### First Year

- M 145M - Mathematics for the Liberal Arts Credit(s): 3 \*
- THTR 101FH - Introduction to Theatre Credit(s): 3
- THTR 102F - Introduction to Theatre Design Credit(s): 3
- THTR 106 - Theatre Production I: Run Crew Credit(s): 1
- THTR 120F - Introduction to Acting I Credit(s): 3
- THTR 205 - Theatre Workshop II Credit(s): 2
- WRIT 101W - College Writing I Credit(s): 3 \*
- Electives Credit(s): 3
- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Natural Science (NL) Requirement Credit(s): 3

**First Year Total: 30**

##### Second Year

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- OR**
- COMX 150CF - Video Communication Credit(s): 3
  
- THTR 106 - Theatre Production I: Run Crew Credit(s): 1
- THTR 121F - Introduction to Acting II Credit(s): 3 \*
- THTR 202 - Stagecraft I: Lighting and Costumes Credit(s): 3
- THTR 203 - Stagecraft II: Scenery and Props Credit(s): 3
- THTR 205 - Theatre Workshop II Credit(s): 2
- THTR 235H - Dramatic Literature Credit(s): 3
  
- Communications (C) Requirement Credit(s): 3
- OR**
- Humanities (H) Requirement Credit(s): 3
- OR**
- Social Sciences (A or B) Requirement Credit(s): 3
- OR**
- WRIT 201W - College Writing II Credit(s): 3 \*
  
- Natural Science (NL or N) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 60**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Theatre Arts Studies Transfer

### Suggested Electives:

- ARTH 200FGH - Art of World Civilization I Credit(s): 3
- ARTH 201FGH - Art of World Civilization II Credit(s): 3
- DANC 194 - Seminar/Workshop Credit(s): 3
- FILM 105 - Motion Picture Appreciation Credit(s): 1
- LIT 225H - Shakespeare: Tragedy and Comedy Credit(s): 3
- LIT 226H - Shakespeare: History and Tragedy Credit(s): 3
- THTR 106 - Theatre Production I: Run Crew Credit(s): 1

### Advisor:

Richard Haptonstall  
AT 256  
(406) 756-3962  
rhaptonstall@fvcc.edu

Joe Legate  
AT 255  
(406) 756-3906  
jlegate@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

*The information on all transfer programs is subject to change.  
Students should see their advisor to explore other possibilities not specifically listed in the program.*

# Web Technology, AAS

2015-2016

While enrolled in the Web Technology program, students will learn the creative and technical skills necessary to design and develop professional websites. The Web Technology program is ideal for individuals interested in website production and management. Upon completion of this program, students will:

- Identify qualities of good web page design by evaluating color, layout, navigation, and content;
- Create quality websites using a mix of XHTML, Dreamweaver, and Photoshop;
- Design and develop interactive media using HTML5;
- Create interactive web documents using JavaScript, a client-side scripting language;
- Gain knowledge of network protocols and operating systems found within a network structure;
- Gain the knowledge and skills to design and build databases for web applications;
- Integrate server-side programming and database technologies to create dynamic web applications; and
- Demonstrate marketing and managing techniques while working in a team environment to analyze, design, develop, and evaluate a website for a client.

## Required Courses

### First Year - Fall Semester

- BMGT 205C - Professional Business Communication Credit(s): 3 \*

OR

- WRIT 101W - College Writing I Credit(s): 3 \*

- BMKT 225 - Marketing Credit(s): 3
- CSCI 111 - Programming with Java I Credit(s): 4
- GDSN 149 - Digital Imaging I Credit(s): 3
- MART 231 - Interactive Web I Credit(s): 4

**First Semester Total: 17**

### Spring Semester

- BMKT 130 - Search Engine Marketing Credit(s): 3
- CSCI 211 - Client Side Programming Credit(s): 4
- CSCI 240 - Databases and SQL Credit(s): 3 \*
- M 095~ - Intermediate Algebra Credit(s): 4 \*
- MART 232 - Interactive Web II Credit(s): 4 \*

**Second Semester Total: 18**

### Second Year - Fall Semester

- COMX 111C - Introduction to Public Speaking Credit(s): 3
- CSCI 210 - Web Programming Credit(s): 4 \*

- ECNS 201B - Principles of Microeconomics Credit(s): 3

OR

- ECNS 202GB - Principles of Macroeconomics Credit(s): 3

- ITS 164 - Networking Fundamentals Credit(s): 3
- MART 234 - Emerging Web Technologies Credit(s): 3 \*

**First Semester Total: 16**

### Spring Semester

- CSCI 213 - Web Programming Techniques: PHP II Credit(s): 4 \*

- GDSN 247 - Digital Portfolio Preparation Credit(s): 4 \*

- ITS 221 - Project Management Credit(s): 3 \*

- ITS 298 - Internship/Cooperative Education Credit(s): 3 \*

OR

- Approved Elective Credit(s): 3

**Second Semester Total: 14**

**Total Credits: 65**

\*Indicates prerequisite and/or corequisite needed. Check course description.

### Admission Guidelines

- Students are expected to have sufficient computer skills.

### Program Information

- Program emphasis is on developing skills in three areas of website responsibilities: content development, business management and technical operations.
- All Required Courses within this degree program must be taken for a letter grade.
- An internship is required for this program. Students must apply for internship placements for this program the prior semester. See Internships for more information and application deadlines.
- After completing this program, students can test for proficiency levels sponsored by the World Organization of Webmasters™.

### Opportunities after Graduation

- Designing, developing and maintaining websites.
- Managing web technology projects or businesses.
- Continuing education in the area of Computer Science or Graphic Design.

### Advisor:

Dawn Rauscher  
BSS 105  
(406) 756-3861  
drauscher@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

## 2015-2016

## Welding and Fabrication Technology, CTS, CAS, AAS

The Welding and Fabrication curriculum is designed to provide students training and experience in welding and fabrication as it pertains to assembly, manufacturing, energy, robotics, and structural construction. The programs provides education and training in common cutting and welding processes, CNC plasma cutting, OXYFUEL, SMAW, GMAW, GTAW, and FCAW processes, structural and pipe and plate welding, blueprint reading, communications, and quantitative problem solving. Upon successful completion of the program, the student will:

- Describe and demonstrate safe use of each type of welding equipment;
- Select and demonstrate various joining processes;
- Read and interpret welding blueprints;
- Estimate type, quantity, cost, and weight of a welded fabrication from blueprint information;
- Demonstrate proper transport, setup, adjustment, and use of all cutting and welding equipment;
- Demonstrate proficiency in OXYFUEL, SMAW, GMAW, GTAW, and FCAW processes;
- Recognize, inspect, and document proper applications of welding processes;
- Demonstrate techniques and devices for controlling heat effects during welding;
- Apply advanced fabrication techniques including design, layout, and production of a metal cutout and welding project employing robotically controlled torches;
- Develop and schedule the sequence to complete an advanced fabrication project;
- Demonstrate required skills in joint fitting that are necessary to reduce distortion during final assembly.

### Welding and Fabrication Technology Tier I, CT

#### First Year - Fall Semester

- ECP 104 - Workplace Safety Credit(s): 1
- M 114 - Extended Technical Mathematics Credit(s): 3 \*
- WLDG 100 - Introduction to Welding Fundamentals Credit(s): 4
- WLDG 111 - Welding Theory I Practical Credit(s): 4 \*
- WLDG 117 - Blueprint Reading and Welding Symbols Credit(s): 3
- WLDG 145 - Fabrication Basics I Credit(s): 3

**First Semester Total: 18**

### Welding and Fabrication Technology Tier II, CT

#### Spring Semester

- BMGT 205C - Professional Business Communication Credit(s): 3 \*
- CAPP 106 - Short Courses: Computer Applications Credit(s): 1
- WLD 112 - Introduction to Pipe Welding Credit(s): 4 \*
- WLDG 122 - Welding Theory III Practical Credit(s): 4 \*
- WLDG 146 - Fabrication Basics II Credit(s): 3
- WLDG 185 - Welding Qualification Test Preparation Credit(s): 2 \*

**CAS Total Credits: 35\*\***

\*Indicates prerequisite and/or corequisite needed. Check course description.

\*\* Upon completion of Tier I, students are eligible to apply for a Certificate in Welding and Fabrication.

\*\*\* Upon completion of Tiers I and II, students are eligible to apply for a Certificate of Applied Science in Welding and Fabrication Technology. Students may earn either a Tier II Certificate or a CAS in Welding and Fabrication Technology, but not both.

#### Second Year - Fall Semester

- COMX 111C - Introduction to Public Speaking Credit(s): 3  
**OR**
- COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- DDSN 114 - Introduction to CAD Credit(s): 3 \*
- MCH 132 - Introduction to Engine Lathes Credit(s): 4 \*
- WLD 121 - Welding Certification II Credit(s): 2 \*
- WLDG 220 - Welding Fabrication I Credit(s): 4 \*

**First Semester Total: 16**

#### Spring Semester

- ELCT 105 - Electrical Circuitry Credit(s): 2
- WLD 135 - GMAW/GTAW Welding and Certification Credit(s): 4 \*
- WLDG 222 - Welding Fabrication II Credit(s): 4 \*
- WLDG 280 - Weld Testing Certification Credit(s): 4 \*

**Second Semester Total: 14**

**AAS Total Credits: 65**

\*Indicates prerequisite and/or corequisite. Check course description.

#### Program Information

- After completing the program, students should be qualified for the following certifications:
  1. AWS D 1.1 in 3/8" Plate Certification
  2. AWS D 1.1 in Unlimited Thickness Certification
  3. AWS D 1.1 Pipe Certification
  4. First Aid/CPR Certification
- Fees for this program are higher than average. Please see the program director for more details.

#### Opportunities after Graduation

- Career opportunities offer a wide range of possibilities as a welding technician in the fabrication and manufacturing industries, steel construction, nondestructive testing and weld inspection, mining, energy, petroleum, bridge construction and other production areas.

#### Advisor:

Mort Hill  
OT 107  
(406) 756-3996  
rhill@fvcc.edu

For general information, contact the Admissions Office:  
(406) 756-3847.

For occupation information, tuition and fees, and other gainful employment disclosures, visit our website at [www.fvcc.edu/gainfulemployment.html](http://www.fvcc.edu/gainfulemployment.html).

# Welding and Inspection Technology, AAS

2015-2016

The Welding and Inspection Technology curriculum is designed to provide students experience in welding and inspection technology as it pertains to assembly, manufacturing, energy, structural construction and nondestructive testing. Nondestructive testing involves the inspection of material or a welding object in a manner that will not impair its future usefulness using one of the NDT test methods, visual inspection, liquid penetrant, magnetic particle, eddy current, ultrasonic and radiographic testing. This program provides education and training in common cutting and welding processes, CNC plasma cutting, AWS welding standards, OXYFUEL, SMAW, GMAW, GTAW, and FCAW processes, structural, pipe and plate welding, nondestructive testing and inspection testing, blueprint reading and communications and math competencies. Upon completion of this program, students will:

- Describe and demonstrate safe and proper use of each type of welding equipment;
- Select and demonstrate various joining processes;
- Read and interpret welding blueprints using a systemic process;
- Estimate type, quantity, cost, and weight of a welded fabrication from information on a blueprint;
- Demonstrate proper transport, setup, adjustment and use of all cutting and welding equipment;
- Use current industry technology to test and repair welding related equipment;
- Demonstrate proficiency in OXYFUEL, SMAW, GMAW, GTAW, and FCAW processes;
- Recognize, inspect and document proper applications of welding processes;
- Demonstrate techniques and devices for controlling heat effects during welding;
- Consistently use equipment safely in the performance of nondestructive testing;
- Demonstrate proficiency in the use of nondestructive testing equipment and the processes; and
- Use current AWS, ASME, and ASNT codes, welding procedures and recommended practices.

## First Year - Fall Semester

- CAPP 106 - Short Courses: Computer Applications  
Credit(s): 1 \*
- M 114 - Extended Technical Mathematics Credit(s): 3 \*
- NDTE 110 - Introduction to Nondestructive Testing  
Credit(s): 3 \*
- WLDG 100 - Introduction to Welding Fundamentals Credit(s): 4
- WLDG 111 - Welding Theory I Practical Credit(s): 4 \*
- WLDG 117 - Blueprint Reading and Welding Symbols  
Credit(s): 3

**First Semester Total: 18**

## Spring Semester

- DDSN 114 - Introduction to CAD Credit(s): 3
- ECP 104 - Workplace Safety Credit(s): 1
- NDTE 111 - Liquid Penetrant and Magnetic Particle Testing  
Credit(s): 3 \*
- WLDG 122 - Welding Theory III Practical Credit(s): 4 \*
- WLDG 145 - Fabrication Basics I Credit(s): 3 \*
- WLDG 185 - Welding Qualification Test Preparation  
Credit(s): 2

**Second Semester Total: 16**

## Second Year - Fall Semester

- COMX 111C - Introduction to Public Speaking Credit(s): 3  
**OR**
- COMX 115C - Introduction to Interpersonal Communication  
Credit(s): 3
- NDTE 113 - Ultrasonic Testing I Credit(s): 3
- NDTE 115 - Eddy Current Testing Credit(s): 3
- NDTE 121 - Radiographic Testing I Credit(s): 2
- WLD 112 - Introduction to Pipe Welding Credit(s): 4 \*
- WLD 121 - Welding Certification II Credit(s): 2 \*

**First Semester Total: 17**

## Spring Semester

- BMGT 205C - Professional Business Communication  
Credit(s): 3 \*
- NDTE 114 - Ultrasonic Testing II Credit(s): 3 \*
- NDTE 122 - Radiographic Testing II Credit(s): 3 \*
- NDTE 125 - AWS D1.1 Code Book Credit(s): 2 \*
- WLD 135 - GMAW/GTAW Welding and Certification  
Credit(s): 4 \*
- WLDG 280 - Weld Testing Certification Credit(s): 4 \*

**Second Semester Total: 19**

**Total Credits: 70**

\*Indicates prerequisite and/or corequisite needed. Check course description.

## Optional Course Offerings:

- DDSN 135 - Solidworks Credit(s): 2
- MCH 122 - Introduction to CAM Credit(s): 3
- WLD 121 - Welding Certification II Credit(s): 2 \*
- WLDG 280 - Weld Testing Certification Credit(s): 4 \*

## Program Information

- After completing the program, students should be qualified for the following certifications:
  1. AWS D 1.1 in 3/8" Plate Certification
  2. AWS D 1.1 in Unlimited Thickness Certification
  3. AWS D 1.1 Pipe Certification
  4. ASNT Level II Education Requirements for Certification.  
ASNT also requires documented work experience.
  5. First Aid/CPR Certification
- Fees for this program are higher than average. Please see the program director for more details.

## Opportunities after Graduation

- Career opportunities offer a wide range of possibilities as a welding technician in the fabrication and manufacturing industries, steel construction, nondestructive testing and weld inspection, mining, energy, petroleum, bridge construction and other production areas.

## Advisor:

Mort Hill  
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## 2015-2016

Wildlife biologists study wild animals and the issues that surround their habitats and conservation. **The University of Montana - Missoula's** Wildlife Biology department prepares students to enter fields in wildlife biology as managers, researchers, and ecologists. While some employment opportunities exist at the bachelor's level, many students continue on to graduate studies for more opportunity. Students at FVCC can take most of The University of Montana's and other four-year schools' requirements for the first two years. There are three options in Wildlife Biology at The University of Montana: terrestrial, aquatic, and honors. The course of study recommended below is suggested for all three options. The Fish and Wildlife Management option at **Montana State University - Bozeman** prepares students for entry-level positions in natural resources management and graduate work. Montana State University's program emphasizes basic principles of animal ecology with considerable work in related fields.

### Associate of Science Degree

#### Suggested course of study for a transfer to Montana State University - Bozeman:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4
- BIOB 170N - Principles of Biological Diversity Credit(s): 3 \*
- BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 \*
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
- WRIT 201W - College Writing II Credit(s): 3 \*
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**First Year Total: 32**

##### Second Year

- BIOB 275N - General Genetics Credit(s): 4 \*
- ECNS 101GB - Economic Way of Thinking Credit(s): 3
  
- ENSC 245NL - Soils Credit(s): 4
- OR**
- GPHY 111NL - Introduction to Physical Geography Credit(s): 4
  
- M 162M - Applied Calculus Credit(s): 5 \*
- PHSX 205NL - College Physics I Credit(s): 5 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Global Issues (G) Requirement Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3

**Second Year Total: 31**

**Total Credits: 63**

\*Indicates prerequisite and/or corequisite needed. Check course description.

*The information on all transfer programs is subject to change. Students should see their advisor to explore other possibilities not specifically listed in the program.*

For general information, contact the Admissions Office:  
(406) 756-3847.

## Wildlife Biology Transfer

### Associate of Science Degree

#### Suggested course of study for a transfer to The University of Montana - Missoula:

##### First Year

- BIOB 160NL - Principles of Living Systems Credit(s): 4 <sup>1</sup>
- CHMY 121NL - Introduction to General Chemistry Credit(s): 4 \*
- CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 \*
- COMX 111C - Introduction to Public Speaking Credit(s): 3
- WRIT 101W - College Writing I Credit(s): 3 \*
  
- WRIT 121C - Introduction to Technical Writing Credit(s): 3 \*
- OR**
- WRIT 201W - College Writing II Credit(s): 3 \*
  
- Global Issues (G) Requirement Credit(s): 3
- Humanities (H) Requirement Credit(s): 3
- Social Sciences (A) Requirement Credit(s): 3

**First Year Total: 30**

##### Second Year

- BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 \*
- BIOB 272N - Genetics and Evolution Credit(s): 4 \*
  
- BIOO 235NL - Rocky Mountain Flora Credit(s): 3 <sup>2</sup>
- OR**
- Electives Credit(s): 3
  
- M 162M - Applied Calculus Credit(s): 5 \*
- STAT 216M - Introduction to Statistics Credit(s): 4 \*
- Electives Credit(s): 3
  
- Humanities (H) Requirement Credit(s): 3
- OR**
- Fine Arts (F) Requirement Credit(s): 3
  
- Social Sciences (B) Requirement Credit(s): 3

**Second Year Total: 30**

**Total Credits: 60**

<sup>1</sup>BIOB 160NL is required for the major but BIOB 170N\*/BIOB 171L\* are required for the minor, so students could take both to provide for flexibility at UM.

<sup>2</sup> Not required for the Aquatics option.

#### Advisors:

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#### Transfer Notes for Associate of Science Degree Students

The Associate of Science (AS) degree requires 60 credits at FVCC, and the Bachelor of Science (BS) degree at Montana University System (MUS) colleges and universities requires 120 credits. FVCC students can usually earn as many as 75-85 credits in preparation for many transfer majors, thus reducing the number of credits required for the BS degree at MUS schools. Also, by earning the AS degree from FVCC, students will have satisfied the lower division **General Education Core** (see General Education Requirements for requirements) for all MUS institutions and will not be required to meet additional lower division general education core requirements upon transfer. The suggested course load in AS programs is rigorous and is recommended for only the most prepared students. A more moderate semester credit load can be achieved by taking general education core courses during summer terms or completing one or two additional semesters at FVCC before transfer.



# Course Descriptions

2015-2016

## Numbering

- The Montana University System has moved to a common numbering system for all undergraduate courses.
- All public colleges and universities in Montana will use the same subject abbreviations or rubric (the letter codes that indicate the course subject), numbers and titles for courses taught on more than one campus.
- Most FVCC rubrics and numbers HAVE CHANGED. However, course content has not changed as a result of this process.
- Multiple disciplines have already undergone common course numbering as reflected in the course descriptions and preceding transfer curricula and career and technical program pages. For example, the new rubric for all ECON classes is now ECNS.
- The course number (e.g., WRIT 101) indicates the department (Writing) and the level of the course.
- Courses numbered 100 or higher assume college level reading ability.
- Courses numbered from:
  - 100 to 199 are freshman level
  - 200 to 299 are sophomore level
- The “~” after courses numbered under 100 indicates these courses are usually nontransferable but may apply towards an AAS degree at FVCC. Courses numbered under 100 may not be eligible for financial aid.

The following course numbers apply to specific types of courses.

Titles/Credits Vary

- 190, 290 ..... Undergraduate Research
- 191, 291 ..... Special Topics/Experimental Courses
- 192, 292 ..... Independent Study
- 193, 293 ..... Study Tours/Study Abroad
- 194, 294 ..... Seminar/Workshop
- 195, 295 ..... Fieldwork/Clinical/Practicum/Student Teaching
- 197, 297 ..... Educational Methods Courses
- 198, 298 ..... Internship/Externship/Cooperative Education 199, 299 Capstone

Course numbers followed by the letters listed below represent courses to be used to satisfy the general education core.

- C = Communications
- F = Fine Arts
- G = Global Issues
- H = Humanities
- N = Natural Science (Non-conventional Lab)
- L = Natural Science (Lab)
- M = Mathematics
- A = Social Sciences Group A
- B = Social Sciences Group B
- W = Writing



**Activities: General (ACT)****ACT 106 - Beginning Conditioning and Fitness**

Credit(s): 1

Students will work with the instructor to develop a personalized workout comprised of a combination of cardiovascular work and weight training. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

**ACT 108 - Total Fitness Women**

Credit(s): 1

*Prerequisite(s):* adequate muscle-skeletal strength to perform 20-30 minutes of moderate impact aerobic activity and primary caregiver approval, if necessary.

This traditional floor dance course provides a low to intermediate aerobic workout with alternate moves demonstrated to increase or decrease intensity to individualize the course for optimal safety and benefit. This course will include warm-up, cardio exercise, resistance exercises with free weights, and cool-down with stretching. Discussions will focus on women's health issues specific to physical fitness, weight control, healthy food plans, and maintaining good health. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

**ACT 114 - Beginning Rock Climbing**

Credit(s): 1

This course introduces the student to movement on rock and to the techniques and safety systems to set up your own short climbs, top-rope climbing systems. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

**ACT 132 - Cardioboxing**

Credit(s): 1

This high cardio course with upbeat music utilizes basic boxing techniques, also referred to as Boot Camp Boxing. Students work out with gloves on a free-standing bag. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**ACT 150 - Beginning Yoga**

Credit(s): 1

The purpose of this course is to introduce students to Hatha Yoga physical exercise. The Yoga postures exercise every part of the body; stretching and toning the muscles and joints, the spine and the entire skeletal system. Postures also work on the internal organs, glands and nerves. By releasing physical and mental tension, they also liberate vast resources of energy as well as maintaining the balance between the mind and the body. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

**ACT 169 - Beginning Tennis**

Credit(s): 1

This course is an introduction to the game of tennis for beginning or novice tennis players. Emphasis will include instruction on rules and etiquette, proper use of equipment, basic strokes, basic shots, serves, returns, and game strategies (singles and doubles). Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

**ACT 233 - Zumba**

Credit(s): 1

Zumba is a popular fitness program inspired by Latin Dance. The word "zumba" comes from a Colombian word that means to move fast and have fun, which is how people describe the routine. Using upbeat Latin music together with cardiovascular exercise, Zumba is aerobic dancing that is lots of fun and easy to learn. (Fall Semester)

**ACT 250 - Pilates**

Credit(s): 1

A mind/body form of exercise designed to improve breathing, strength, balance, and flexibility -all functioning to change the posture and promote wellness, pilates focuses on the "powerhouse" of the body (the abdominal and low back region). Pilates has been used for rehabilitation, sport training, and general conditioning. Pilates programs consist of fundamental movements as well as specific movement forms utilizing the postures of the fundamentals. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**ACT 269 - Intermediate Tennis**

Credit(s): 1

This course is an extension of ACT 169 with special emphasis on developing and enhancing the tennis skills and strategies of intermediate and advanced players. Instruction will include a review of rules and etiquette, as well as improving strokes, shots, serves, returns, and game strategies (singles and doubles). Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

**ACT 283 - Logger Sports**

Credit(s): 1

This course introduces the safe and proper use of crosscut saws, axes and chain saws as they are used in intercollegiate Logger Sports competition. Emphasis is placed on equipment maintenance, safety of use and proper techniques for competition. The last third of the term, students will compete in Logger Sports contests throughout the Northwest. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

## **ACT 285 - Handgun Marksmanship**

Credit(s): 1

*Prerequisite(s)*: instructor's consent.

This course will enable students to become aware of the responsibility, ethics and need for safe handling and firing of handguns. The standard NRA pistol protocols are followed and firing is conducted in an indoor 50 ft. range. Students take the national NRA examination and receive the official NRA certificate of completion. Combat shooting and self-defense instruction are not a formal part of the instruction. A .22 caliber handgun is required of all class participants. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall Semester)

## **Accounting (ACTG)**

### **ACTG 101 - Accounting Procedures I**

Credit(s): 4

A practical course in the foundations of accounting, this course emphasizes the complete accounting cycle for a sole proprietorship service business as well as the cycle for a merchandising firm. This course covers receivables and payables as well as banking transactions and payroll. (Fall and Spring Semesters)

### **ACTG 102 - Accounting Procedures II**

Credit(s): 4

*Prerequisite(s)*: ACTG 101 or instructor's consent.

A continuation of ACTG 101, this course covers notes payable and receivable, valuation of receivables, inventories, plant and equipment, the voucher system, accounting for partnerships and corporations, financial statement analysis, and cash flow statements. (Spring Semester)

### **ACTG 122 - Accounting and Business Decisions**

Credit(s): 2

This course covers selecting a financial entity, registering with the tax authorities, reviewing financial statements and accounting concepts, calculating payroll taxes, selecting a year end, calculating income taxes, cash planning and financing a business. (Spring Semester)

### **ACTG 124 - Payroll Accounting Applications**

Credit(s): 3

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms and journal and general ledger transactions. Emphasis is placed on using software applications for calculation of wages, social security, income and unemployment taxes; generating appropriate payroll tax forms and reports; and journalizing/posting transactions. (Spring Semester)

### **ACTG 150 - Accounting on Microcomputers**

Credit(s): 3

*Prerequisite(s)*: ACTG 101 or ACTG 201 or equivalent.

This course provides students with a realistic approach to computerized accounting principles using QuickBooks Pro. Students will learn QuickBooks functions while completing accounting problems using this software. (Fall and Spring Semesters)

## **ACTG 180 - Payroll Accounting**

Credit(s): 2

*Prerequisite(s)*: ACTG 101 or ACTG 201.

This course is an introduction to payroll accounting including relevant federal and state income tax laws and labor laws, pension plans, worker's compensation, unemployment insurance and necessary records and reports. (Spring Semester)

## **ACTG 201 - Principles of Financial Accounting**

Credit(s): 4

An introduction to the theory and application of accounting, this course covers double entry accounting, the accounting cycle, merchandising operations, control accounts and subsidiary ledgers, internal control, cash, short-term investments, accounts receivable, merchandise inventory, plant assets, current liabilities, long-term liabilities, payroll, financial statement disclosures and partnership accounting. (Fall and Spring Semesters)

## **ACTG 202 - Principles of Managerial Accounting**

Credit(s): 4

*Prerequisite(s)*: a grade of "C" or better in ACTG 201.

A continuation of ACTG 201, this course includes corporate organization, dividends, retained earnings, earnings per share, long-term liabilities, long-term investments and consolidations, statement of cash flows, analysis and interpretation of financial statements, accounting for manufacturing operations, job order costing, process costing, cost-volume-profit relationships, business segments and departmental reporting, planning, and budgeting. (Fall and Spring Semesters)

## **ACTG 205 - Computerized Accounting**

Credit(s): 2

*Prerequisite(s)*: ACTG 202, BMIS 211, CAPP 156, or instructor's consent.

This course provides the students with knowledge in the use of spreadsheets in analyzing financial data and preparing financial reports. Advanced features of spreadsheets will be covered. (Fall Semester)

## **ACTG 207 - Advanced Accounting on Microcomputers**

Credit(s): 2

*Prerequisite(s)*: ACTG 101 or ACTG 201 and previous computer experience.

This course is designed to teach students how to use computerized accounting software. Students will convert a manual accounting system to a commercial computerized accounting system. The course includes both converting an existing company into a computerized accounting system as well as creating a new company. (Spring Semester)

## **ACTG 210 - Cost and Advanced Accounting**

Credit(s): 4

This course covers the use of relevant accounting data and techniques in making management decisions, types of costs and their relationships, present value techniques, budgets, break-even computations, costing systems and cost allocations. It also covers work-paper presentation techniques, long-term debt, correction of accounting errors and preparation of cash flow statements. (Spring Semester)

## 2015-2016

### **ACTG 211 - Income Tax Fundamentals**

Credit(s): 4

*Prerequisite(s):* ACTG 201.

This course is designed to introduce the basic principles of federal taxation for the sole proprietor, partnership, or corporation. It includes income determination, deductions, sales of properties, depreciation and its recapture, nontaxable exchanges, dividends, corporate liquidations and S Corporations. (Fall Semester)

### **ACTG 223 - Principles of Financial Accounting II**

Credit(s): 2

*Prerequisite(s):* ACTG 201.

This course is a continuation of financial accounting topics introduced in ACTG 201. Topics covered will include the roles accounting and the accountant play in business. (Fall and Spring Semesters)

### **ACTG 231 - Applied Accounting**

Credit(s): 2

*Prerequisite(s):* ACTG 101 or ACTG 201.

This course applies terminology, concepts, and techniques learned in accounting to computerized accounting software packages. It also covers setting up inventory, creating invoices, customizing forms, creating reports and graphs, payroll, processing payments, and using all other accounts. (Fall Semester)

### **ACTG 241 - Intermediate Financial Accounting I**

Credit(s): 4

*Prerequisite(s):* ACTG 202.

This course is aimed at those students wishing to pursue accounting: environmental and conceptual framework of financial accounting, review of the accounting process and financial statements, time value of money, cash and receivables, advanced inventory issues, advanced problems in long-term assets, and intangible assets. (Fall Semester)

### **ACTG 298 - Internship**

Credit(s): 3

*Prerequisite(s):* ACTG 180, ACTG 202, ACTG 211, ACTG 241, and completion of 30 credits with a grade point average of 2.0 or better. Submission of an internship application.

This course offers a supervised, structured learning experience at an approved business/organization. Students will receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students will receive assistance in developing application materials and finding worksites meeting learning and legal criteria from the Career Development Coordinator. (All Semesters)

### **Agricultural Management (AGMT)**

#### **AGMT 200 - Agricultural Marketing**

Credit(s): 3

This course provides an introduction to the marketing of agricultural products. Topics include purchasing, selling, processing, standardizing, grading, storage and marketing. This course covers options for both large and small-scale agriculture, including commodity, wholesale, and direct sales. (Fall Semester)

## Course Descriptions

### **Agricultural Sciences (AGSC)**

#### **AGSC 105 - Malting and Barley Production**

Credit(s): 2

This course will examine the role of barley in the brewing process, and will cover the science and technology of malting. Topics include barley selection, barley agronomy, the malting process, and grain analysis. (Fall Semester)

#### **AGSC 106 - Hop Selection and Production**

Credit(s): 2

This course covers the selection and production of hops as it pertains to brewing. Topics include varietal selection, hop agronomy, harvest, post-harvest handling and storage, and the utilization of hops. (Fall Semester)

#### **AGSC 200 - Soil Nutrient Management**

Formerly *IAFS 200*

Credit(s): 3

*Prerequisite(s):* ENSC 245NL.

Covers the principles of soil nutrient management as they relate to crop production. The role of soil physical, biological and chemical processes in soil quality will be emphasized. Students will be introduced to a variety of cultural and chemical soil management practices and will learn practical soil management techniques in the laboratory. (Spring Semester)

#### **AGSC 202 - Organic Crop Production: Fall**

Formerly *IAFS 202*

Credit(s): 3

This course is designed to teach students the fundamentals of organic vegetable and herb production in the fall months. Students will work in greenhouse and field settings, applying crop production principles on the campus farm. Topics covered will include pest management, harvesting, fall seeding, marketing, planning, decision-making, and record keeping. (Fall Semester)

#### **AGSC 202 - Organic Crop Production: Spring**

Formerly *IAFS 202*

Credit(s): 3

This course is designed to teach students the fundamentals of organic vegetable and herb production in the spring months. Students will work in groups and independently in greenhouse and field settings, applying learned crop production principles to growing food on the campus farm. Topics covered will include variety selection, seeding and plant propagation, seedbed preparation, pest management, planning, farm management, and record keeping. (Spring Semester)

#### **AGSC 230 - Agricultural Pest Management**

Formerly: *IAFS 230 Integrated Pest Management*

Credit(s): 5

This course will provide comprehensive coverage of the classification, growth, structure, life cycles, identification and control of selected weeds, insects, and diseases of major agricultural crops. Principles of and practical approaches to integrated pest management will be emphasized, including crop scouting, diagnosis, decision-making, non-chemical and chemical control of specific pests, and pesticide safety. (Spring Semester)

# Course Descriptions

2015-2016

## **AGSC 241 - Field Crop Production**

Formerly: *IAFS 110 Principles of Crop Science*

Credit(s): 3

*Prerequisite(s)*: BIOB 110N

This course is a study of modern agronomic field crop production practices as they relate to crop growth, yield, and quality. Topics covered include environmental effects of crop development, plant breeding, nutrient and water management, cultural practices, pest management, harvest and postharvest handling, and current issues in crop management. (Spring Semester)

## **AGSC 246 - Agriculture in Montana Field Course**

Formerly *IAFS 246*

Credit(s): 2

This field-based course compares and contrasts agricultural operations across Montana, with an emphasis on large-scale operations. Students will gain an appreciation of the choices, opportunities, and challenges facing conventional, diversified and organic producers. (Summer Semester)

## **AGSC 298 - Internship: Agricultural Enterprise**

Formerly *IAFS 298*

Credit(s): 3 or 4

*Prerequisite(s)*: AGSC 298 Internship: Campus Farm, completion of 30 semester credits with a grade point average of 2.0 or better, and advisor's consent.

This course offers a supervised, structured learning experience at an approved agricultural business/organization. Students will receive training related to their chosen field of interest, enhance their academic learning, and gain exposure to the workplace. Prior to placement at an internship site, students will attend an internship orientation to learn the application and internship process. (Fall and Spring Semesters)

## **AGSC 298 - Internship: Campus Farm**

Formerly *IAFS 298*

Credit(s): 3-6

This course offers a supervised, structured learning experience at the FVCC campus farm. Students will receive hands-on training in all aspects of this small-scale farming operation, participating in activities that complement their coursework in crop production and agribusiness. (Summer Semester)

## **AGSC 299 - Capstone: Integrated Agriculture and Food Systems**

Formerly *IAFS 299*

Credit(s): 3

*Prerequisite(s)*: completion of 45 semester credits with a grade point average of 2.0 or better, and instructor's consent.

*Corequisite(s)*: BGEN 280.

This course integrates plant, soil and livestock management principles to help the student develop a unified understanding of an agricultural system. In this course, students will develop a management plan for a mixed farm, proposing strategies for seed and livestock acquisition, soil fertility management, crop and animal management, and record keeping. The course helps link theoretical class work with the practical application of concepts in the context of operating an integrated agricultural enterprise. (Spring Semester)

## **Agriculture Technology (AGTE)**

### **AGTE 238 - Farm Maintenance and Equipment**

Formerly *IAFS 238*

Credit(s): 4

An introduction to basic maintenance of farm facilities and equipment, as well as the use of common farm machinery and tools. Topics include carpentry, wiring, plumbing, fencing, and calculating costs and materials, the selection, safe operation and maintenance of tractors, tillage and harvest equipment, irrigation systems, and hand tools. (Spring Semester)

## **Allied Health (AH)**

### **AH 117 - Medical Setting Customer Care and Privacy**

Credit(s): 1

This course is designed for health care workers to understand the importance of professionalism and the need to perform in a professional, ethical, legal and competent manner in a medical office setting. (Spring Semester)

### **AH 120 - Configuring Electronic Health Records**

Credit(s): 3

*Prerequisite(s)*: admission into the Health Information Technology program.

This course is a practical experience with a laboratory component, addressing approaches to assessing, selecting and configuring EHRs to meet the specific needs of customers and end-users. (Internet course only.) (Fall and Spring Semesters)

### **AH 140 - Installation and Maintenance of Health IT Systems**

Credit(s): 3

*Prerequisite(s)*: admission into the Health Information Technology program.

This course focuses on the installation and maintenance of health IT systems, including testing prior to implementation and introduction to principles underlying system configuration with hands-on experiences in computer labs and on-site in health organizations. (Internet course only.) (Fall and Spring Semesters)

### **AH 155 - Essentials of Electronic Health Records**

Credit(s): 1

This course will provide a basic introduction to the history, theory, and potential benefits of electronic health records. This course will provide a hands-on experience using an EHR that can be applied directly to the health care workplace. (Spring Semester)

### **AH 230 - Electronic Health Records**

Credit(s): 3

The purpose of this course is to build a comprehensive understanding and comfort level with the electronic health record that will apply directly in the clinical workplace. (Intermittently)



## 2015-2016

## Course Descriptions

### **AH 260 - Practice and Information Management and Redesign**

Credit(s): 3

*Prerequisite(s):* admission into the Health Information Technology program.

This course presents fundamentals of health workflow process analysis and redesign as a necessary component of complete practice automation, including topics of process validation and change management. (Internet course only.) (All Semesters)

### **Allied Health: Athletic Training (AHAT)**

#### **AHAT 210 - Prevention and Care of Athletic Injuries**

Credit(s): 3

*Prerequisite(s):* ability to use internet and word processing.

This course presents an introduction to the field of athletic training. It presents the foundations of sports trauma, including the recognition and classification of sport injuries, as well as the prevention, evaluation and management of those injuries.

Teaching is done through a combination of lecture and hands on (lab) techniques. (Spring Semester)

### **Allied Health: Medical Assisting (AHMA)**

#### **AHMA 201 - Medical Assisting Clinical Procedures I**

Credit(s): 4

*Prerequisite(s):* a grade of "C-" or better in AHMS 144 and BIOH 104N.

A course designed to allow the student to begin to develop a basic knowledge of medical assistant skills required for completing the Medical Assistant AAS degree, the student learns how to perform vital signs, use electronic medical records charting, ready patients for the provider and assist, become knowledgeable in pediatrics, obstetrics and gynecology, as they apply to the medical office. This course will prepare the student to achieve a high standard of practice, confidentiality and professionalism in order to progress to AHMA 203. (Spring Semester)

#### **AHMA 202 - Medical Assisting Clinical Procedures I Lab**

Credit(s): 1

This course gives the medical assistant student an opportunity to become proficient at performing the clinical skills required in AHMA 201 and AHMA 203. (Spring Semester)

#### **AHMA 203 - Medical Assisting Clinical Procedures II**

Credit(s): 4

*Prerequisite(s):* a grade of "B" or better in AHMA 201.

This course is designed to allow the student to advance the knowledge and skills required for completing the Medical Assistant AAS degree. The student is trained in allergy testing, urinalysis, giving injections, performing phlebotomy, handling specimens, and principles of radiology. Throughout the course, emphasis on courteous treatment of the patient/client will be covered. CPR is also offered, as it is a requirement for those who advance to AHMA 298, Medical Assisting Externship. (Fall Semester)

#### **AHMA 204 - Medical Assisting Clinical Procedures II Lab**

Credit(s): 1

This course gives the medical assistant student an opportunity to become proficient at performing the clinical skills required in AHMA 201 and AHMA 203. (Fall Semester)

#### **AHMA 205 - Medical Assisting Clinical Approaches I**

Credit(s): 1

*Prerequisite(s):* AHMS 144, BIOH 104N.

*Corequisite(s):* AHMA 201, AHMA 202.

This online course will present clinically-related case studies to students to encourage development of their critical thinking skills. The cases will be based on patient information related to material covered in AHMA 201 and its stated prerequisite courses. Online resources will be utilized to identify appropriate patient preparation for procedures. (Internet course only.) (Spring Semester)

#### **AHMA 206 - Medical Assisting Clinical Approaches II**

Credit(s): 1

*Prerequisite(s):* AHMA 205.

*Corequisite(s):* AHMA 203, AHMA 204.

This course is intended to reinforce student preparation for on-site clinical experiences by researching case studies and applying critical thinking skills. Case studies will be based on patient information related to material covered in AHMA 203 and its stated prerequisite courses. (Internet course only.) (Fall Semester)

#### **AHMA 220 - Phlebotomy**

Credit(s): 3

*Prerequisite(s):* AHMA 201, Program Director's consent.

Through a combination of classroom instruction and clinical rotations for practical experience, students will learn proper blood drawing, safety procedures, basic anatomy and physiology, special procedures, quality management and legal issues involved in blood collection. Students will complete the required hours needed in order to sit for the certified phlebotomist exam, if they desire to do so. The course is intended for Medical Assistant AAS degree students only. (Fall Semester)

#### **AHMA 298 - Medical Assisting Externship**

Credit(s): 4

*Prerequisite(s):* a grade of "B" or better in AHMA 203, instructor's consent.

As a course designed to provide on-site clinical experience in a physician's office or a clinic setting, it provides opportunities to perform various clinical and administrative procedures under the supervision of a doctor and office staff. (Spring Semester)

## **AHMA 299 - Medical Assisting Portfolio Development**

Credit(s): 1

*Prerequisite(s):* AHMA 203, AHMA 204.

This course is designed to give medical assistant students an opportunity to review and discuss the educational competencies for the medical assistant as set forth by CAAHEP for accredited medical assisting educational programs. Throughout the semester, the students will compile previously collected documentation from required program courses that indicate in which class they learned each competency and how they were evaluated. The end product of the course will be a completed portfolio that details the progress of the student through the program. (Spring Semester)

## **Allied Health: Medical Support (AHMS)**

### **AHMS 100 - Math Applications for Allied Health Professionals**

Credit(s): 3

*Prerequisite(s):* compass score of 43 and above or instructor's consent.

This course is designed to provide students with a solid mathematical foundation necessary to succeed in a health care profession. This course will review algebra, systems of measurement, medication and syringe calculations, ratio and proportions, calculations for IV therapy, basic statistics and ionic solutions and pH calculations. (Fall and Spring Semesters)

### **AHMS 101 - Keyboard Formatting for Medical Reports**

Credit(s): 1

Keyboard Kinetics is written to help students maximize productivity on the keyboard. It is designed to be worked through the entire duration of the course, coming back regularly to work through exercises and units to increase the student's typing speed. (All Semesters)

### **AHMS 104 - Medical Specialties**

Credit(s): 3

Medicine is a general term which encompasses many individual fields of medical practice. Orthopedics, gastrointestinal, neurology and many other specialties make up medical reports. The goal of this course is to give students experience with all of the specialties of medicine maximizing employability and opportunity. (All Semesters)

### **AHMS 105 - Health Care Delivery**

Credit(s): 3

The purpose of this course is to familiarize the student with the history and development of today's health care system in the United States. The lessons will provide an overview of the development of different types of facilities, the "continuum of care" concept that is the basis for modern health care, and examine the quality management process. Reimbursement mechanisms and managed care concepts that affect health care delivery are also included. (Fall Semester)

### **AHMS 108 - Health Data Content Structure**

Credit(s): 3

*Prerequisite(s):* admission into the Health Information Technology program.

This course offers an in-depth analysis of data mobility including the hardware infrastructure (wires, wireless, and devices supporting them), the ISO stack, standards, Internet protocols, federations and grids, the NHIN and other nationwide approaches. (Internet course only.) (Fall and Spring Semesters)

### **AHMS 110 - Study of the Human Body and Disease Process I**

Credit(s): 3

This course covers the body and body systems, as well as how diseases and problems are manifested in each of the body systems. Filled with diagrams and descriptions, this unit is essentially for providing a knowledge foundation creating a correct medical report. (All Semesters)

### **AHMS 115 - Study of the Human Body and Disease Process II**

Credit(s): 3

*Prerequisite(s):* AHMS 110.

This course is a continuation of AHMS 110 and covers the body and body systems, as well as how diseases and problems are manifested in each of the body systems. Filled with diagrams and descriptions, this unit is essentially for providing a knowledge foundation creating a correct medical report. (All Semesters)

### **AHMS 120 - Grammar Essentials for Medical Transcription**

Credit(s): 2

This course covers English language skills, including rules for grammar and punctuation. In addition, it provides exercises and practice with English language basics in the context of medical reports. (All Semesters)

### **AHMS 125 - Editing and Proofreading for MT**

Credit(s): 2

This course provides editing and proofreading skills and practice in fine tuning medical reports and taking them from rough draft to finished quality. (All Semesters)

### **AHMS 127 - Medical Document Formatting**

Credit(s): 2

*Prerequisite(s):* AMGT 110.

This course will assist students in understanding fundamental concepts and techniques related to formatting medical documents. These techniques will increase productivity and accuracy and create professional looking documents for the medical office. (Fall Semester)

### **AHMS 130 - Physical Exam, Lab Data, Pharmacology**

Credit(s): 2

This course will give the student practical experience in using resources for correct word selection, drug references, foreign phrases, and formatting for medical documents. (All Semesters)



## 2015-2016

## Course Descriptions

### AHMS 133 - Language of Medical Transcription

Credit(s): 2

This course is designed to build an effective medical vocabulary which will significantly enhance the student's efficiency in performing the actual task of transcribing. Students will learn the basic blocks for building medical language. (All Semesters)

### AHMS 135 - Voice Recognition for Medical Support

Credit(s): 1

The purpose of this course is to educate students regarding speech recognition technology's role in the health information management industry. The course addresses common myths associated with the emergence of SRT, the history of SRT, and how SRT works. (All Semesters)

### AHMS 140 - MT Technology/Shortcuts/ Employment

Credit(s): 1

This course serves as a tool for potential employment as a medical transcriptionist. It provides information on how and where to find work for the transcriptionist. (All Semesters)

### AHMS 144 - Medical Terminology

Credit(s): 3

A systematic approach to scientific terminology, this course prepares students to function properly in fields related to the medical profession. Familiarity with word elements and competent use of a medical dictionary are emphasized. (All Semesters)

### AHMS 175 - Medical Law and Ethics

Credit(s): 3

This course is designed to prepare the medical office assistant for a variety of legal situations that arise in the medical office setting. This course will stress the importance of medical office personnel having knowledge of the law, personal protection, patient protection, physician protection, the duties of the physician, responsibility and standard of care. The course will also examine the difference between civil and criminal law, contracts, malpractice, and the economic impacts. This course will also offer a comprehensive vocabulary of legal terms. Case law will be examined in groups. (Spring Semester)

### AHMS 198 - Internship

Credit(s): 3

*Prerequisite(s):* AHMS 105, AHMS 144, AHMS 210, AHMS 252, BIOH 104N, BIOH 105L, BIOL 170, BMGT 205C, CAPP 106.

Students will be required to complete 150 hours of supervised training in medical coding through on-the-job training in an approved business or organization. Hours will be arranged to fit students' and employers' schedules. (All Semesters)

### AHMS 202 - Beginning Medical Transcription

Credit(s): 3

This course will introduce transcribing medical documents. Students will listen to doctor's dictation of a patient's visit and transcribe these documents using the appropriate medical words, grammar, and formats. Students will also receive instruction of the foot pedal used to control the speed of the dictator's voice. (All Semesters)

### AHMS 204 - Intermediate Medical Transcription

Credit(s): 3

*Prerequisite(s):* AHMS 202.

This course is a continuation of AHMS 202. Students will gradually build from less complex report content and dictator difficulty level to more complex report content and dictator difficulty. (All Semesters)

### AHMS 206 - Advanced Medical Transcription

Credit(s): 3

*Prerequisite(s):* AHMS 202, AHMS 204.

This course is a continuation of AHMS 204. The course will build to more complex report content and dictator difficulty. All areas of study will be used including English language, keyboarding, using resources, and anatomy and physiology. Immediate feedback and text comparison will allow the student to compare reports with reports created by experienced medical transcriptionists to develop and perfect critical thinking skills. (All Semesters)

### AHMS 208 - Health Care Statistics

Credit(s): 3

*Prerequisite(s):* AHMS 100.

This course is designed to introduce statistical computation at the introductory level for use in health care facilities. Students will learn to extract information and perform statistical analysis to be used in making decisions for the health care facility. (Intermittently)

### AHMS 210 - Basic Medical Coding

Credit(s): 3

*Prerequisite(s):* AHMS 144.

This course will cover the introduction and basic coding information for CPT, HCPCS, and ICD-10-CM coding sets. The focus is learning guidelines and assigning CPT, HCPCS, and ICD-10-CM codes to a wide range of abbreviated coding scenarios covering different body systems and medical specialties. Complete source documents will be used periodically. AHIMA's Standards of Ethical Coding will be reviewed. Basic billing and reimbursement issues will be discussed. (Coding will be taught for the physician reimbursement, not the facility, so ICD-10-CM codes will not be covered. These are covered in the intermediate coding classes.) (Fall and Spring Semesters)

### AHMS 212 - CPT Coding

Credit(s): 3

*Prerequisite(s):* AHMS 210.

This course is a continuation of AHMS 210. Students will continue coding using the current CPT manual and coding from medical records and cases. (Summer Semester)

### AHMS 213 - ICD-10 Coding

Credit(s): 3

*Prerequisite(s):* AHMS 210.

This course is a continuation of AHMS 210. Students will be coding using the current ICD-10-CM coding book. Students will be coding from cases and medical records provided by the program. (Fall Semester)

# Course Descriptions

2015-2016

## **AHMS 220 - Medical Office Procedures**

Credit(s): 4

*Prerequisite(s):* sophomore standing in the Health Care Office Management or Medical Assistant program or instructor's consent.

This sophomore level course is designed for students pursuing medical field careers. A comprehensive course in office procedures, telephone skills, medical law, employment law, medical office billing, ICD and CPT coding, appointment scheduling, and medical record bookkeeping. (Fall Semester)

## **AHMS 250 - Advanced Medical Coding**

Credit(s): 4

*Prerequisite(s):* AHMS 210, AHMS 212, AHMS 213.

This capstone course provides students the opportunity to code from medical files using ICD-10-CM and CPT codes as necessary, complete appropriate insurance forms, and place the necessary codes on the 3M encoder software system. This course will help students bridge the gap between theoretical class work and practical application. (Spring Semester)

## **AHMS 252 - Computerized Medical Billing**

Credit(s): 2

This course is designed to provide hands-on training to the student seeking employment in the medical office. It will cover the fundamentals of ICD-10, SPT, and HCPCS coding and would be appropriate for the beginner or intermediate level office staff as well. (Spring Semester)

## **AHMS 280 - Overview of Health Informatics Systems**

Credit(s): 4

*Prerequisite(s):* admission into the Health Information Technology program.

This course provides an overview of the most popular EHR vendor systems highlighting the features of each, as they would relate to practical deployments and noting the differences between the systems. Students will work with simulated systems or real systems with simulated data. As they play the role of practitioners using these systems, they will learn what is happening under the hood. They will experience threats to security and appreciate the need for standards, high levels of usability and how errors can occur. Materials must support hands-on experience in computer labs and on-site in health organizations. (Internet course only.) (Fall and Spring Semesters)

## **AHMS 298 - Internship: Coding On-the-Job Training**

Credit(s): 10

*Prerequisite(s):* completion of the Medical Coding program, approval of program director.

This training is provided by the medical community. Students will have an opportunity to work with medical coders in the community upon completion of the Medical Coding program. (All Semesters)

## **AHMS 298 - Internship: Medical Transcription**

Credit(s): 3

*Prerequisite(s):* completion of the Medical Coding program, approval of program director.

Students will be required to complete 150 hours of supervised training in the medical transcription field in an approved facility. Hours will be arranged to fit students' and employers' schedules. (Spring Semester)

## **AHMS 298 - Internship: Office Technology**

Credit(s): 3

*Prerequisite(s):* AMGT 113, CAPP 154, completion of 30 semester credits with a grade point average of 2.0 or better. Must have consent of internship coordinator and advisor.

This course offers a supervised, structured learning experience at an approved business/organization. Students will receive training related to their field of study, enhance their academic learning and gain exposure to the workplace. Prior to placement at an internship site, students will attend an internship orientation to learn the application and internship process. (All Semesters)

## **Allied Health: Physical Therapy (AHPT)**

### **AHPT 101 - Physical Therapist Assisting I / Lab**

Credit(s): 5

*Prerequisite(s):* AHPT 105.

*Corequisite(s):* AHPT 205, AHPT 206, AHPT 210, and AHPT 218. This is the first of two sequential skills and procedures courses in the PTA program. The following topics are covered: basic principles and procedures of physical therapy; basic care skills and application techniques; use of assistive devices; architectural and environment barriers; wound care and debridement techniques; definition and measurement of vital signs and application to emergency situations; incorporation of medical terminology and abbreviations; basic principles of tissue inflammation and edema management; introduction to pain theories, conditions, and assessment; physiological principles, indications/ contraindications, and application of physical agents discussed in lecture; and the PTA's role in discharge planning and the importance of communication with the PT. (Fall Semester)

### **AHPT 105 - Introduction to Physical Therapist Assisting**

Credit(s): 3

This course is designed to give the student an overview of the Physical Therapy profession by providing a historical perspective, as well as an understanding of its philosophy in relation to the professional organization; an overview of the roles of the Physical Therapy staff members in the clinical settings as well as members of the health care team in various delivery systems; development of interpersonal communication skills relating to the profession; and an understanding of the commitment of the graduate to continued personal and professional development. This course provides an overview of ethical and legal issues relating to the role of the PTA in health care delivery. It includes such topics as financing of physical therapy; regulations governing PTA's; code of ethics; the purpose of documentation and types of medical records; and scope of PT and PTA practice. Two projects will be completed that demonstrate the student's knowledge of American Medical Association (AMA) style of referencing. (Spring Semester)

## 2015-2016

## Course Descriptions

### **AHPT 201 - Physical Therapist Assisting II / Lab**

Credit(s): 5

*Prerequisite(s):* AHPT 101, AHPT 105, AHPT 205, AHPT 206, AHPT 210, and AHPT 218.

*Corequisite(s):* AHPT 213, AHPT 215, and AHPT 220.

This is the second in the series of procedures and application courses. The following topics are covered: theoretical principles and application of cardiopulmonary rehab, industrial rehab, ergonomics, gait analysis and training; prosthetic and orthotic application and treatment; breathing exercises and strategies, postural drainage, percussion, and vibration; biofeedback, topical applications, electrotherapy, ultrasound; procedure and application of cervical and lumbar traction; theory and application of massage/manual therapy. Students will accurately document the treatment and patient's response within various related case studies as well as present research to the class about a selected therapeutic modality using peer-reviewed journals. (Spring Semester)

### **AHPT 205 - Anatomy and Kinesiology for the PTA**

Credit(s): 6

*Prerequisite(s):* AHPT 105.

*Corequisite(s):* AHPT 101, AHPT 206, AHPT 210, and AHPT 218.

This course is designed to provide the student with an understanding of the human musculoskeletal system relative to the biomechanical elements of normal and abnormal human motion as well as osteology and arthrology in relation to muscle action and joint mechanics. The study and skills of goniometry, manual muscle testing, and palpation will also be covered. (Fall Semester)

### **AHPT 206 - Pathophysiology for the Physical Therapist Assistant**

Credit(s): 3

*Prerequisite(s):* AHPT 105.

*Corequisite(s):* AHPT 101, AHPT 205, AHPT 210, and AHPT 218.

This course introduces students to the pathophysiology; etiology; clinical signs and symptoms; and management of selected pathological and injury-related disorders treated in physical therapy. Pathologies discussed include diabetes mellitus, immune system disorders, neoplasms, disorders related to pregnancy, and vestibular pathologies. The course includes student presentations on disorders pertinent to physical therapy as well as discussions on specific case studies applying the Physical Therapy Code of Ethics and how it relates to treatment of certain diseases. (Fall Semester)

### **AHPT 210 - Clinical Experience I**

Credit(s): 3

*Prerequisite(s):* AHPT 105.

*Corequisite(s):* AHPT 101, AHPT 205, AHPT 206, and AHPT 218.

The purpose of this clinical affiliation is to provide the student with an opportunity to apply skills and techniques learned in AHPT 101, AHPT 205, AHPT 206, and AHPT 218 under the appropriate supervision of the clinical instructor. This course will include a four-week clinical rotation at an approved site. (Fall Semester)

### **AHPT 213 - Neurorehabilitation for the PTA**

Credit(s): 6

*Prerequisite(s):* AHPT 101, AHPT 105, AHPT 205, AHPT 206, AHPT 210, and AHPT 218.

*Corequisite(s):* AHPT 201, AHPT 215, and AHPT 220.

This course is an introduction to neuroanatomy and neurophysiology in relationship to neurological pathologies of the brain and spinal cord commonly treated by physical therapy. Through this course the student is also introduced to neurological development: normal vs. abnormal - birth through adult; disease processes and outcomes; and neurophysiological routines used for treatment. Students will become familiar with general guidelines for completing a sensory assessment utilizing testing protocol. Principles and treatment of specific neurological disabilities are also presented. (Spring Semester)

### **AHPT 215 - Introduction to Orthopedics**

Credit(s): 4

*Prerequisite(s):* AHPT 101, AHPT 105, AHPT 205, AHPT 206, AHPT 210, and AHPT 218.

*Corequisite(s):* AHPT 201, AHPT 213, and AHPT 220.

This course introduces students to pediatric and adult musculoskeletal pathologies and management of orthopedic and surgical problems commonly seen by physical therapy. Course content will include basic biomechanics and mechanisms of orthopedic injuries and disease; survey of surgical repair with emphasis on rehabilitation; evaluation techniques and treatments used by physical therapists; use of manual muscle testing for orthopedic pathologies; theoretical application of therapeutic exercise programs and equipment commonly used for treatment of various orthopedic conditions and surgical procedures; orthopedic pediatric treatment routines; and athletic taping. (Spring Semester)

### **AHPT 218 - Therapeutic Exercise for the PTA**

Credit(s): 2

*Prerequisite(s):* AHPT 105.

*Corequisite(s):* AHPT 101, AHPT 205, AHPT 206, and AHPT 210.

This course introduces the physical therapist assistant student to topics such as exercise physiology, exercise prescription tailored to the individual, general therapeutic exercise, aquatic therapy, relaxation techniques, group therapy and setting up a home exercise program. Current health practices and theory will be addressed in relation to nutrition/wellness within special populations emphasizing preventative practice. Students will become familiar with contraindications for exercise training in persons with various system or musculoskeletal disabilities and will understand how to progress an individual through a therapeutic exercise program established by a physical therapist. (Fall Semester)

### **AHPT 220 - Clinical Experience II**

Credit(s): 4

*Prerequisite(s):* AHPT 101, AHPT 105, AHPT 205, AHPT 206, AHPT 210, and AHPT 218.

*Corequisite(s):* AHPT 201, AHPT 213, and AHPT 215.

This is the second of three full-time clinical experiences. The students will continue to build on their clinical experiences from AHPT 210 and previous coursework. This course will include a six-week clinical rotation at an approved site. (Spring Semester)

# Course Descriptions

2015-2016

## **AHPT 225 - Seminar and Project in Physical Therapist Assisting**

Credit(s): 3

*Prerequisite(s):* AHPT 101, AHPT 105, AHPT 201, AHPT 205, AHPT 206, AHPT 213, AHPT 215, AHPT 218, and AHPT 220.  
*Corequisite(s):* AHPT 295.

This concentrated course is designed to integrate skills and techniques from previous clinical experiences and from the coursework presented throughout the PTA program. It focuses on presentation of comprehensive treatment plans utilizing all treatment skills and techniques learned during the previous semesters. The students will be expected to prepare and maintain a case study that will follow the patient through the continuum of care. Students will be required to relate sociological, physical, and psychological aspects of illness and injury to their projects. Preparation for the state's licensure exam is covered in this course, including the Practice Exam and Assessment Tool (PEAT). Students will also develop a professional portfolio for employment. (Summer Semester)

## **AHPT 295 - Clinical: Experience III**

AHPT 230

Credit(s): 4

*Prerequisite(s):* AHPT 101, AHPT 201, AHPT 205, AHPT 206, AHPT 210, AHPT 213, AHPT 215, AHPT 218, and AHPT 220.  
*Corequisite(s):* AHPT 225.

This is the third of three full-time clinical experiences during which the student develops proficiency in physical therapy procedures, understanding of clinical responsibilities and supervisory relationships with a minimum competence necessary to graduate as an entry-level physical therapist assistant and become an active participant of the health care team. This course will include a six-week clinical rotation at an approved site. (Summer Semester)

## **Allied Health: Surgical Technician (AHST)**

### **AHST 101 - Introduction to Surgical Technology**

Credit(s): 3

This course provides an introduction to the field of surgical technology. Emphasis on history, roles, education of the surgical technologist, work environment, career opportunities, attributes for success, legal and ethical concerns, hospital administration and organization, professional behaviors including utilizing the therapeutic-self, engaging in effective interpersonal relations and interactions. Students will be introduced to the importance of obtaining certification and joining the national organization. (Fall Semester)

### **AHST 116 - Surgical Techniques I with Lab**

Credit(s): 6

*Prerequisite(s):* AHST 101, BIOH 211NL\*

*Corequisite(s):* AHST 201\*, BIOM 250NL\*

This course introduces knowledge and techniques essential to the surgical technologist in preparation of the patient for surgical procedures. It emphasizes instrumentation, preparation and use of equipment and supplies, prepping, draping and positioning, and various roles of the surgical technologist and circulator in surgery. Provides an introduction to the physical organization of the surgical suite. (Spring Semester)

### **AHST 201 - Surgical Procedures I**

Credit(s): 4

*Prerequisite(s):* BIOH 211NL, AHST 101

*Corequisite(s):* AHST 116, BIOM 250NL

This course emphasizes procedures in general, obstetric/gynecologic, ENT, oral maxillofacial, orthopedic, laparoscopic and diagnostic procedures. (Spring Semester)

### **AHST 202 - Surgical Procedures II**

Credit(s): 5

*Prerequisite(s):* AHST 201.

*Corequisite(s):* AHST 216, AHST 250, BIOL 170.

This course emphasizes procedures in ophthalmic, plastic/reconstructive, genitourinary, cardiothoracic, peripheral vascular and neurosurgery. (Fall Semester)

### **AHST 207 - Professional Development and Leadership**

Credit(s): 3

*Prerequisite(s):* AHST 202, AHST 216

*Corequisite(s):* AHST 255.

This course provides discussion of topics of special interest to surgical technologists, including resume writing, simulated job interview, case scenarios, and review for the National Certification Exam. Students are also required to complete the Program Assessment Exam conducted by the Association of Surgical Technologists. (Spring Semester)

### **AHST 216 - Surgical Techniques II**

Credit(s): 3

*Prerequisite(s):* AHST 116\*, AHST 201\*

*Corequisite(s):* AHST 202\*, AHST 250\*, and BIOL 170\*.

A continuation of AHST 116, this course presents a study of basic patient care and advocacy in the peri-operative setting as performed by the surgical technologist. Emphasizing medical terminology, pharmacological and anesthesia applications, environmental and workplace safety, basic math, weights and measurements, robotics, electricity, and physics, syringes/hypodermic needles, and sterilization methods. In addition, students will present a PowerPoint presentation on a surgical procedure. (Fall Semester)

### **AHST 250 - Surgical Clinical I**

Credit(s): 4

*Prerequisite(s):* AHST 116\* and AHST 201\*.

*Corequisite(s):* AHST 202\*, AHST 216\*, and BIOL 170\*.

This first clinical course provides prearranged scheduled experiences in the operating room for the student surgical technologist. Experiences will begin observational, progressing to hands-on as skills develop. (Fall Semester)



**AHST 255 - Advanced Surgical Clinical**

Credit(s): 10

*Prerequisite(s):* AHST 202\* and AHST 216\*.*Corequisite(s):* AHST 207.

This clinical will prepare students to perform in the role of first scrub. Students will be scrubbing in a hospital operating room. Students will assist in a variety of surgeries and related duties. Students will apply their knowledge of surgical techniques, procedures, equipment, instruments, and supplies along with increasingly developing their skills to more complex procedures. This class will also have rotations in Central Processing, Same Day Surgery, and Endoscopy. (Spring Semester)

**Allied Health: Radiologic Technology (AHXR)****AHXR 101 - Patient Care in Radiology**

Credit(s): 2

*Prerequisite(s):* instructor's consent.

This course is designed to introduce the student to the basic concepts of the radiologic profession. Topics covered include equipment operation/manipulation, introduction into the clinical environment, and information pertaining to patient care and applicable ethical and legal considerations. Department policies and procedures are also presented so the students will have optimum resources to be successful through their training. Presented in lecture format and supported by clinical orientation. (Fall Semester)

**AHXR 108 - Introduction to Radiologic Physics**

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "B-" or better in M 095~.

This course is an introduction to the basic physics of ionizing electromagnetic radiation with specific applications to diagnostic x-ray radiography. Topics include the principles, concepts, and practices of scientific measurement, the basic principles of atomic and molecular structure, matter, work, energy, power, electricity including electrostatics, electrodynamics, and electromagnetism, the production of ionizing electromagnetic radiation, its properties, its interaction with matter, and fundamentals of radiation dosimetry. (Spring Semester)

**AHXR 110 - Radiographic Procedures I**

Credit(s): 2

*Prerequisite(s):* instructor's consent.

This course is an introduction to the anatomy, positioning protocols, and techniques used for routine imaging of the chest, abdomen, extremities and spine. It also includes an overview of related pathology. (Fall Semester)

**AHXR 111 - Radiographic Procedures II**

Credit(s): 2

*Prerequisite(s):* AHXR 110, instructor's consent.

This course is designed to build on the knowledge and experience gained from AHXR 110. There is a continuation of the study of anatomy, positioning protocols, and techniques used to image bony anatomy. It also presents an introduction into fluoroscopic procedures and contrast media. (Spring Semester)

**AHXR 115 - Radiographic Principles I**

Credit(s): 2

*Prerequisite(s):* instructor's consent.

This course is an introduction to the operation of imaging equipment, with a focus on the design of an x-ray tube and x-ray production based on technical factors. It also covers image quality characteristics with film review and critique. (Fall Semester)

**AHXR 116 - Radiographic Principles II**

Credit(s): 2

*Prerequisite(s):* AHXR 115, instructor's consent.

This course is a continuation of AHXR 115 in learning about imaging equipment operation. It focuses on the physics and function of tomographic, fluoroscopic and mobile x-ray units. Introduction to conventional versus digital imaging equipment is also presented. (Spring Semester)

**AHXR 195 - Radiographic Clinical: I**

Credit(s): 4

*Prerequisite(s):* instructor's consent.

This first clinical course provides orientation to the imaging department, with concentration on department dynamics and workflow. Students have an opportunity to apply what they have learned in the classroom as they rotate through preassigned areas. Roles progress from observational to more hands-on as skills increase. (Fall Semester)

**AHXR 195 - Radiographic Clinical: II**

Credit(s): 5

*Prerequisite(s):* AHXR 195-Radiographic Clinical: I, instructor's consent.

This second clinical course gives students the opportunity to apply and practice material learned in lecture courses. Experience includes assisting the radiologist during fluoroscopy procedures, supporting surgeons through imaging in the operation room, as well as refining techniques and positioning of all protocols covered in the AHXR 110 and AHXR 111 courses. (Spring Semester)

**AHXR 210 - Radiographic Procedures III**

Credit(s): 2

*Prerequisite(s):* AHXR 110.

This course is designed to prepare students for observation and supervised participation in correlative modalities within the Imaging department. Material includes circulatory and nervous system anatomy and physiology pertinent to the additional modalities, as well as the basic concepts of image production and evaluation in CT, MRI, ultrasound, nuclear medicine, mammography, interventional radiography and the cardiac lab. (Fall Semester)





# Course Descriptions

2015-2016

## AHXR 211 - Radiographic Procedures IV

Credit(s): 2

*Prerequisite(s):* AHXR 115, AHXR 116.

This course provides the student with an in-depth study of pathologic conditions pertaining to radiology in lecture format. Lessons include pathology related to each general bone grouping, a dedicated look at pediatric-specific pathology, and a review of specialized modalities best suited for analysis of each disease type. (Spring Semester)

## AHXR 225 - Radiobiology/Radiation Protection

Credit(s): 2

*Prerequisite(s):* AHXR 116.

This course provides a comprehensive background on the interaction of x-radiation with matter, including biological effects at the molecular, cellular and organ system levels. Students are taught radiation protection to ensure safe use of x-rays during diagnostic imaging procedures, along with radiation quantities and units, monitoring methods, and regulatory limits for exposure. (Fall Semester)

## AHXR 270 - Radiographic Registry Review

Credit(s): 2

*Prerequisite(s):* AHXR 210, AHXR 225, AHXR 295 Radiographic Clinical: IV.

This course is a comprehensive review of all program material in preparation for the national registry exam for radiologic technology, including anatomy and positioning, patient care, principles and equipment physics, and radiation protection. Format consists of review assignments, computerized review material, and "mock" registry style exams followed with class evaluation and discussion. A majority of this course is also designated for self-study. (Spring Semester)

## AHXR 295 - Radiographic Clinical: III

Credit(s): 8

*Prerequisite(s):* AHXR 195 Radiographic Clinical: II.

This course rotates students through various preassigned shifts and clinical sites. Experience is gained by performing exams under the supervision of staff technologists during early morning, midday, late evening, and weekend shifts. Sites are multiple and varied providing the students with diversity in patient conditions and types of exams. (Summer Semester)

## AHXR 295 - Radiographic Clinical: IV

Credit(s): 8

*Prerequisite(s):* AHXR 295 Radiographic Clinical: III.

The fourth semester clinical is designed to complement AHXR 210 Radiographic Procedures III, with rotation of students through the modalities studied in lecture. Initially students observe and receive instruction, then gradually begin to participate in the performance of exams under the direct supervision of staff technologists. When not assigned to these specialized modalities, students continue to perform exams in the diagnostic imaging area and other clinical rotations with limited supervision and increased independence. (Fall Semester)

## AHXR 295 - Radiographic Clinical: V

Credit(s): 8

*Prerequisite(s):* AHXR 295 Radiographic Clinical: IV.

This final clinical course provides students the opportunity to perform independently as a technologist with support available from a staff technologist or the clinical instructor at all times. Rotations continue to include the specialized modalities, with hands-on participation in preparation for possible specialization and future advanced training. (Spring Semester)

## Administrative Management (AMGT)

### AMGT 090~ - Introductory Keyboarding

Formerly *TASK 090~*

Credit(s): 1

This course is designed to develop touch keyboarding skills for alphabetic and some punctuation keys on a standard keyboard. (All Semesters)

### AMGT 110 - Keyboarding

Formerly *TASK 110*

Credit(s): 1

A course for those with no previous keyboarding experience. It is in a regular classroom setting and designed to develop touch keyboarding skills for the alphabetic, numeric and punctuation keys on a standard keyboard. The student should achieve keyboarding by touch at a rate of 25 words a minute with no more than 5 errors. (All Semesters)

### AMGT 111 - Keyboard Formatting

Formerly *TASK 111*

Credit(s): 1

*Prerequisite(s):* AMGT 110 or instructor's consent.

This course is designed to develop formatting skills for letters, reports, tables, and memos. The skills learned will be applicable to business as well as personal situations. (All Semesters)

### AMGT 112 - Keyboard Skillbuilding

Formerly *TASK 112*

Credit(s): 1

*Prerequisite(s):* AMGT 110, AMGT 111, or instructor's consent.

An individualized method for developing keyboarding accuracy and speed based on error analysis and corrective practice. (All Semesters)

### AMGT 113 - Keyboarding and Document Processing

Formerly *TASK 113*

Credit(s): 3

*Prerequisite(s):* AMGT 110, AMGT 111, AMGT 112, or instructor's consent.

A continuation of the development of basic typing skills which emphasizes the production of various kinds of business correspondence, reports, tabulation, and forms from unarranged and rough draft and copy sources. A goal of 55-60 words a minute is expected. (All Semesters)

**AMGT 125 - Editing Skills for Information Processing**Formerly *TASK 125*

Credit(s): 2

*Prerequisite(s)*: AMGT 090~ or equivalent.

A course emphasizing language arts skills used in today's business office: grammar, punctuation, number usage, capitalization, abbreviations, and spelling. In addition, students will be expected to be able to make decisions and to use proper judgment in preparing a variety of business documents. (All Semesters)

**AMGT 145 - Records Management**Formerly *TASK 145*

Credit(s): 3

This course explores the need for information management, the technology and systems used to maintain information throughout its life cycle, retention and legal considerations in maintaining records, security, disaster preparedness and recovery, and standardized procedures for handling information. In addition, students will calculate and interpret measures of central tendency from data, identify patterns, and prepare and interpret charts and graphs. A comparison between medical, public, and corporate information management will be presented. (Fall and Spring Semesters)

**AMGT 150 - Customer Service Strategies**Formerly *TASK 150*

Credit(s): 3

A review of customer service skills including answering questions, solving problems, soothing irate customers and reassuring the timid ones, this course covers all aspects of customer service and is necessary for any employee. (Intermittently)

**AMGT 151 - Speedwriting**Formerly *TASK 151*

Credit(s): 5

Speedwriting is an alphabetic shorthand system that is easier to learn and transcribe than symbolic shorthand systems. The course includes study of theory, brief forms, dictation, vocabulary and reinforcement of basic English, spelling, punctuation, proofreading, and other necessary transcription skills. It is especially useful to the vocational student for jobs requiring dictation skills, as well as the non-vocational and/or college-bound student for personal note taking. (Fall Semester)

**AMGT 210 - Office Success Strategies**Formerly *TASK 210*

Credit(s): 3

*Prerequisite(s)*: sophomore standing in the Support Professional program or instructor's consent.

This is a finishing course in office procedures and duties with emphasis on office ethics, public relations, and attitudes. Job search and interviewing techniques will be covered, as well as records management. (Spring Semester)

**AMGT 298 - Internship**Formerly *TASK 298*

Credit(s): 3

*Prerequisite(s)*: CAPP 154, AMGT 113, and completion of 30 semester credits with a grade point average of 2.0 or better. Submission of an internship application.

This course offers a supervised, structured learning experience at an approved business/organization. Students will receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students will receive assistance in developing application materials and finding worksites meeting learning and legal criteria from the Career Development Coordinator. (All Semesters)

**AMGT 298 - Internship II**Formerly *TASK 298*

Credit(s): 3

*Prerequisite(s)*: AMGT 298 Internship, internship coordinator and advisor's consent.

This course is a continuation of AMGT 298 Internship. Students design and complete a project developed in cooperation with their internship employer. Students prepare a portfolio to document their 150-hour internship experience. (All Semesters)

**Animal Science (ANSC)****ANSC 100 - Introduction to Animal Science**

Credit(s): 3

This course covers basic principles of animal genetics, nutrition, live animal evaluation, reproduction, and their application to the production of beef and dairy cattle, sheep, swine, horses, and poultry. (Fall Semester)

**ANSC 222 - Livestock in Sustainable Systems**

Credit(s): 3

*Prerequisite(s)*: ANSC 100.

This course provides an introduction to the integration of livestock into a farming system. Topics covered include animal selection, nutrition and feeding, reproduction, herd health, and system management, with an emphasis on small-scale production. Ruminants, poultry and other livestock common in Montana will be discussed. (Fall Semester)

**Anthropology (ANTY)****ANTY 101A - Anthropology and the Human Experience**

Credit(s): 3

This course is designed to introduce the student to the concepts and terms used in the study of man as a cultural and physical being. It addresses the basic divisions of anthropology - physical and cultural anthropology, including ethnology, linguistics and prehistoric archaeology. (Fall Semester)

## Course Descriptions

2015-2016

### **ANTY 210 - Introduction to Physical Anthropology**

Credit(s): 3

This course will cover introductory principles of human evolution and primate studies, human variation, hominid paleontology, and related contemporary issues in physical anthropology (i.e., disease and human adaptations, applied science in forensics, etc.). (Intermittently)

### **ANTY 220G - Culture and Society**

Credit(s): 3

*Prerequisite(s):* ANTY 101A is advised.

An introduction to social and cultural anthropology, this course emphasizes key concepts and the comparison of distinctive cultures, social, economic, and political systems, language, religions, esthetics and cultural change. The study of archaeology, ethnology and linguistics will be introduced. (Spring Semester)

### **ANTY 250 - Introduction to Archaeology**

Credit(s): 3

This course explores how and what archaeologists do toward reconstructing, explaining, and understanding cultures from the past (primarily pre-historical, some historical); covers methodology/ techniques, terms and theories commonly utilized and applied to interpretation of human antiquity. (Intermittently)

## **Art: Art History (ARTH)**

### **ARTH 200FGH - Art of World Civilization I**

Credit(s): 3

This class is a survey of the history of painting, architecture, sculpture, and other arts of Western Civilization - Ancient to Middle Ages. (Fall Semester)

### **ARTH 201FGH - Art of World Civilization II**

Credit(s): 3

This class is a survey of the history of painting, architecture, sculpture, and other arts of Western Civilization - Renaissance to Modern. (Spring Semester)

### **ARTH 225FG - Art and Architecture of Venice**

Credit(s): 3

*Corequisite(s):* ARTH 226, ARTH 227FG.

This course examines the art and architecture of Italy. Students will explore the works of the artists and architects of Italy with specific attention given to Venice from the 4th century onward. The class will consist of a series of excursions to historic sites, important architectural structures, and museums. Emphasis will be on the recognition of the unique character that is found in the Italian style. (Intermittently)

### **ARTH 226 - History and Culture of Venice**

Credit(s): 3

*Corequisite(s):* ARTH 225FG, ARTH 227FG.

This course examines the evolution of both the physical and cultural aspects of Venice, Italy. This course begins with an exploration of the geography of the islands that comprise the city and the lagoon that surrounds it. Visiting historic sites will allow students first-hand insights into the story of Venice. Most of the lectures will be conducted outside of the classroom. Students will study the history of Venice from 400 BCE to the present with an emphasis on the evolution of cultural and technological elements of modern Venetian life. (Intermittently)

### **ARTH 227FG - History of Theatre in Venice**

Credit(s): 3

*Corequisite(s):* ARTH 225FG, ARTH 226.

This course is a study of Italian theatrical history as it relates to Venice and the surrounding area. It will trace drama from its origins in Greek Dionysian religious festivals and consequent usurpation by the Romans through the development of the very specifically Italian forms, *commedia del arte* and grand opera. The location and timing of this course will provide students with a unique, first-hand experience in Italian theatrical culture. Ruins of the ancient Roman amphitheatre at Concordia Sagittaria and the exquisitely preserved Teatro Olimpico in Vicenza, designed by Andrea Palladio, the oldest extant indoor theatre in the world, with its lovingly maintained original scenery in forced perspective from its initial performance of *Oedipus Rex* in 1584, will give students physical contact with historical theatrical practices. And access to La Fenice, the recently renovated Venetian opera house originally completed in 1792, as well as performances there, offers the opportunity to expose students to an art form that has uniquely Italian origins. Also, the dates of the course encompass the traditional Italian pre-Lenten celebration of *carnevale* when visitors and residents alike don elaborate and historically authentic costumes and masks, when squares and alleys are filled with street performers of all stripes, including *commedia del arte* troupes performing works by the masters of 16th century comedy on rude stages with no amplification and historically accurate costumes and props, culminating in an elaborately staged pageant, all of which will immerse the students in a three-dimensional world of theatre that no solely academic curriculum could hope to provide. (Spring Semester)

### **ARTH 228FGH - History of Early Italian Renaissance**

Credit(s): 3

This course aims to introduce students to the development of style and meaning in Italian 14th century art. Painting, sculpture and architecture will be the main disciplines explored. (Spring Semester)

### **ARTH 229FGH - History: Italian Renaissance II**

Credit(s): 3

This course aims to introduce students to the development of style and meaning in Italian 16th century art. Painting, sculpture and architecture will be the main disciplines explored. (Fall Semester)

**Art: Jewelry (ARTJ)****ARTJ 150 - Casting for 3D Jewelry Design I**

Credit(s): 1

This course is a basic class designed to give the student a working knowledge of wax casting processes. The class will focus on spruing, investing, vacuum, and centrifugal casting and final clean-up of cast pieces. Students must have carved models casting ready. Carving waxes will not be part of the curriculum. (Fall Semester)

**ARTJ 170 - Enameling for Jewelry**

Credit(s): 3

*Prerequisite(s):* ARTJ 210F (may be taken concurrently) or instructor's consent.

This course begins with instruction on application of basic enamel/counter enamel to copper. Students will then explore a variety of enameling techniques including, but not limited to, sgraffito, we packing, foils, painting, bas taille, champleve, and plique a jour, as they apply to jewelry. (Intermittently)

**ARTJ 210F - Jewelry and Metalsmithing I**

Credit(s): 3

Students learn the use of basic tools and equipment in this course. Primary projects include riveting metals together, silver soldering, and setting of non-faceted stones. Students are introduced to precious metals. (Spring Semester)

**ARTJ 211F - Jewelry and Metalsmithing II**

Credit(s): 3

*Prerequisite(s):* ARTJ 210F.

In this course, students are introduced to casting, setting of faceted stones, and lapidary techniques. (Fall and Spring Semesters)

**ARTJ 212F - Jewelry and Metalsmithing III**

Credit(s): 3

*Prerequisite(s):* ARTJ 210F, ARTJ 211F.

This course combines skills developed in all advanced jewelry classes and focuses on the use of gold. (Fall and Spring Semesters)

**ARTJ 213 - Jewelry and Metalsmithing IV**

Credit(s): 3

*Prerequisite(s):* ARTJ 210F, ARTJ 211F, ARTJ 212F.

This course is for advanced students who will refine bench skills in preparation to become a professional goldsmith. (Intermittently)

**ARTJ 220 - Forging and Smithing I**

Credit(s): 3

*Corequisite(s):* ARTJ 210F. Forging and smithing are ancient hammer and anvil based techniques that take advantage of the plastic qualities of metal.

This course concentrates on hammer formed jewelry items utilizing non-ferrous metals such as copper, brass, silver, and gold. The course will introduce the student to the following topics: forging and raising techniques, hammers, anvils, forming stakes, tool maintenance. (Fall Semester)

**ARTJ 221 - Forging and Smithing II**

Credit(s): 3

*Prerequisite(s):* ARTJ 220.

This course is designed to explore the use of the hydraulic press in jewelry and vessel construction. Emphasis will be in die making involved in the processes. (Fall Semester)

**ARTJ 231 - 3D Jewelry Design and Modeling I**

Credit(s): 4

This is a jewelry foundational course designed to teach the student how to design in a 3D CAD/CAM software environment and to further take those designs and create finished wax models on prototyping CNC mills. Manufacturing issues and techniques that will be found in a production setting will be explored. (Fall Semester)

**ARTJ 232 - 3D Jewelry Design and Modeling II**

Credit(s): 4

*Prerequisite(s):* ARTJ 231.

This is an advanced jewelry course designed to continue teaching the student how to design in a 3D CAD/CAM software environment and to further take those designs and create finished wax models on prototyping CNC mills. Manufacturing issues and techniques that will be found in a production setting will be explored. (Spring Semester)

**ARTJ 233 - 3D Jewelry Design and Modeling III**

Credit(s): 4

*Prerequisite(s):* ARTJ 232.

This upper level jewelry course is designed to further the education of students who have completed the first and second semester of the CAD/CAM programs. The class will focus on more complex design and milling projects including making galleries, sculpting tools, two and three sided projects, two-color metal projects, and design and milling of metal molds. (Fall Semester)

**ARTJ 234 - 3D Jewelry Design and Modeling IV**

Credit(s): 4

*Prerequisite(s):* ARTJ 233.

This advanced CAD/CAM jewelry course is designed to expand skills acquired in the first three semesters of the jewelry CAD/CAM programs. The class will focus on the completion of complex custom designs from inception to ready-for-market pieces. Additionally, students will integrate the preparation of portfolio, marketing, and human relations skills in a simulated jewelry business environment. (Spring Semester)

**ARTJ 240 - Jewelry Design and Rendering I**

Credit(s): 3

*Prerequisite(s):* ARTJ 210F.

This course provides a complete study on recognizing and visualizing concepts from drawing and design fundamentals to crafting metals. Students learn to create and construct from their own ideas. (Spring Semester)



## Course Descriptions

2015-2016

### **ARTJ 250 - Wax Modeling and Casting I**

Credit(s): 3

This innovative course teaches students the process of designing wax models and reproducing those models by vacuum casting. This allows students to create individual pieces of custom designed jewelry. Procedures for casting organic and inorganic materials will also be covered. (Intermittently)

### **ARTJ 251 - Wax Modeling and Casting II**

Credit(s): 3

*Prerequisite(s):* ARTJ 250.

This course is a continuation of ARTJ 250. (Intermittently)

### **ARTJ 260 - Stone Setting I**

Credit(s): 3

*Prerequisite(s):* instructor's consent.

In this course, students build basic stone setting skills by learning tool assembly and shaping, and how to set stones in a round, oval and pear-marquis head setting. (Spring Semester)

### **ARTJ 261 - Stone Setting II**

Credit(s): 3

*Prerequisite(s):* instructor's consent.

Students build stone setting skills by completing head settings and assembling tools for channel, flush, pave' and gypsy settings. (Fall Semester)

### **ARTJ 270 - Surface Embellishments I**

Credit(s): 3

*Prerequisite(s):* ARTJ 210F.

This course concentrates on textural and chromatic surface treatments for all non-ferrous metals including silver and gold. Included among the topics covered will be reticulation, acidetching, enameling, fusing, hammer and punch treatments, patination, roller printing, and media blasting among others. These are all vital techniques which are, due to their proliferation and technical nature, beyond the scope of basic jewelry classes. (Fall Semester)

### **ARTJ 271 - Surface Embellishments II**

Credit(s): 3

*Prerequisite(s):* ARTJ 270.

This course concentrates on an exploration of the following four surface treatments: mokume gane, gold granulation, keum boo, and cloisonné enameling. Students will make four pieces of jewelry, each incorporating one of the four different techniques. (Spring Semester)

### **ARTJ 280 - Jewelry Repair I**

Credit(s): 3

*Prerequisite(s):* ARTJ 210F, ARTJ 211F.

This comprehensive course teaches students the skills necessary for basic jewelry repair. Students are expected to identify various precious metals as well as cleaning, refurbishing and polishing jewelry. In addition, students learn to size rings, repair broken jewelry and replace stones in damaged pieces. Specifics include: precious metal terminology, cleaning and polishing for repair, soldering techniques for heads and shanks, ring sizing and reshanks, hinge and catch repair, broken chains, diamond removal and tightening, prong work and re-tipping, estimating price quotes. (Intermittently)

## **Art: Visual Arts (ARTZ)**

### **ARTZ 105F - Visual Language-Drawing**

Credit(s): 3

This course, a presentation to art students with varying degrees of talent and exposures to instruction, is designed to help each student develop his or her own unique style. Considerable emphasis is placed upon the perception of the draftsman and problems arising from the representation of three-dimensional objects on two-dimensional planes. Exercises using a variety of media and papers will occupy a great portion of this course. Class problems and assignments are planned to meet the individual needs of all students. Uniformity is not the aim. The major aim is the exposure to, and subsequent assimilation of, basic drawing "tools." (Fall Semester)

### **ARTZ 106F - Visual Language-2-D Foundations**

Credit(s): 3

A foundational course designed to present basic concepts, this course focuses on organization, structure, and composition of form through the use of basic design elements, such as line, shape, and value, and emphasizes design development, which is related to two-dimensional art. (Fall Semester)

### **ARTZ 108F - Visual Language-3-D Foundations**

Credit(s): 3

*Prerequisite(s):* ARTZ 106F.

This course is a continuation of ARTZ 106F, a foundational course designed to present basic concepts, studying organization, structure and composition of forms through the use of basic design elements. Emphasis is on three-dimensionality. (Spring Semester)

### **ARTZ 130 - Introduction to Ceramics**

Credit(s): 1

This introductory short course is designed for students interested in learning the fundamentals of wheel throwing and trimming clay, as well as glazing pottery. The course is designed for students who are not sure they can commit to a full semester course. This course may be repeated for a total of two credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)



## 2015-2016

## Course Descriptions

### **ARTZ 193 - Study Abroad: Travel Journaling around Italy**

Credit(s): 3

This course will explore the intense and magical process of art journaling while in Italy. Students will record their experiences in their own words, including thoughts, revelations, insights, and daily experiences. Students will develop techniques of transparent watercolor as they complete an illustrated journal using those techniques combined with collage, text, etc. For students without an art background, basic drawing skills will be addressed. (Spring Semester)

### **ARTZ 210 - Professional Practices**

Credit(s): 3

This course covers the initial development of visual portfolio, photographing and exhibiting artwork, artist statement, and other preparation for transfer to a BFA program in visual arts. Students will also be prepared for graduate exhibition opportunities as well as for entry into the professional business of art. (Spring Semester)

### **ARTZ 211 - Drawing I**

Credit(s): 3

*Prerequisite(s):* ARTZ 105F.

This is a course designed for the more advanced student. It is expected that prospective students will understand and be capable of demonstrating basic techniques and applications of media. The course is committed to the drawing of the human figure. The first sessions are dedicated to the physiology of the body, the skeletal structure first and then the muscular organization. It is a course aimed at encouraging the student to develop his or her own way of assimilating previous drafting knowledge with the intricacies of the human form. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

### **ARTZ 212 - Drawing Studio: Personal Style**

Credit(s): 3

*Prerequisite(s):* ARTZ 105F.

This course is aimed at students with varying degrees of talent who have successfully completed a beginning drawing program and wish to pursue drawing beyond the basic level. Exercises involving a broader variety of media, their application, and effects will be given emphasis. Class problems and assignments will have enough flexibility to meet the individual needs of all students. Uniformity is not the aim. The major aim of this course is to encourage the development of each student's unique approach to drawing - a personal style. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Spring Semester)

### **ARTZ 221F - Painting I**

Credit(s): 3

This elementary painting course seeks to acquaint students with the basic tools of the painter, focusing on technique and materials. Each assignment is tailored to both satisfy the need for individual expression and to present a vehicle for the practice of new techniques. (Fall Semester)

### **ARTZ 222 - Painting Studio: Composition**

Credit(s): 3

*Prerequisite(s):* ARTZ 221F.

This course is a continuation of ARTZ 221F where the basic tools of the painter are now focused more on composition and color experimentation. It is expected that the student will exercise more personal preference and choice in both subject matter and expression. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Spring Semester)

### **ARTZ 222 - Painting Studio: Oil**

Credit(s): 2

A continuation of study for the aspiring painter, this course allows time for practical experience with brush at the easel, combined with periods of open discussion, lecture sharing and critique. The focus of this class is help and direction for the individual student in developing a unique and personal expression. This course may be repeated for a total of six credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

### **ARTZ 222 - Painting Studio: Oil Painting Human Figure**

Credit(s): 3

Inspired by figure painting masters of the past and present, this course is designed for the student or professional who is ready to take their drawing and painting skills to a new level. The student will be exposed to a wide variety of *Alla Prima* painting techniques while they accumulate a basic understanding of artistic anatomy. Each session of this class will be a direct painting experience from the live model. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Spring Semester)

### **ARTZ 222 - Painting Studio: Portrait**

Credit(s): 2

This course is designed for both beginning and more advanced students to develop the skills necessary to complete an oil portrait of a live model. Progressing from the large and less complicated structures of the human head, neck, and torso to the finer and more complex structures, the student will learn the significant topographical anatomy and employ the concepts of composition, design, perspective, color, light and shadow, character and narrative to establish a "likeness." Each student will be encouraged to develop his or her own style. This course may be repeated for a total of six credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

### **ARTZ 224F - Watercolor I**

Credit(s): 3

A study of the history, materials, techniques and presentation of transparent watercolor, this course considers a variety of subject matter. Summer classes will be conducted "en plein air" (outdoors) weather permitting. (Fall and Spring Semesters)

## Course Descriptions

2015-2016

### **ARTZ 225 - Watercolor Studio: Transparent**

Credit(s): 3

*Prerequisite(s):* ARTZ 224F or instructor's consent.

An in-depth continuation of ARTZ 224F, this course is a study of the history, materials, techniques, and presentation of transparent watercolor with a variety of subject matter considered. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

### **ARTZ 226 - Oil Painting I**

Credit(s): 2

Starting with a brief history of painting tradition, the study will consider modern materials, methods, and styles. Health and safety concerns will be discussed, and materials and supplies will be evaluated for quality and suitability to each individual's interest. Styles and methods will be demonstrated. Three-fourths of the class time will be devoted to hands-on experience as each student experiments with studio procedure. The emphasis in this class is providing the novice with the opportunity to explore the vast potential for expression this medium offers. Painting is a skill that requires practice. Class size is kept low in order to provide as much personal attention as possible. (Fall and Spring Semesters)

### **ARTZ 231F - Ceramics I**

Credit(s): 3

This is an introductory ceramics course which will include the history, development, and aesthetics of ceramic vessels and sculpture. Students will learn basic technical aspects of building clay, working with glazes, and the firing of ceramic objects. Emphasis will be placed on problem solving and the development of ideas. (All Semesters)

### **ARTZ 232 - Ceramics Studio: Personal Techniques**

Credit(s): 3

*Prerequisite(s):* ARTZ 231F or instructor's consent.

This course encourages students to develop personal techniques in clay and develop a portfolio of work. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

### **ARTZ 232 - Ceramics Studio: Tile Making**

Credit(s): 3

This course is a tile making class with emphasis on the various techniques used to produce and install tile murals, as well as an exploration of a variety of historical and contemporary techniques used to create tile. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Spring Semester)

### **ARTZ 232 - Ceramics Studio: Tools and Techniques**

Credit(s): 3

This course is a comprehensive introduction to sculptural ceramic processes and equipment. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall Semester)

### **ARTZ 232 - Ceramics Studio: Wheel Throwing**

Credit(s): 3

This course is designed for all levels of students interested in developing pottery throwing skills including wheel throwing, trimming clay and glazing techniques. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

### **ARTZ 252 - Sculpture Studio: CNC Fabrication**

Credit(s): 3

*Prerequisite(s):* DDSN 114, WLDG 145.

This course is a lecture/lab that continues the use of CNC systems and their operating characteristics. Students will learn how to design, lay out and produce a metal art project by employing the PlasmaCAM system with integrated welding and metal process techniques. Students are encouraged to incorporate both metal and wood into their projects and to add lighting, if appropriate. This course may be repeated for a total of six credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Spring Semester)

### **ARTZ 252 - Sculpture Studio: Metal Forging**

Credit(s): 3

*Prerequisite(s):* DDSN 114, WLDG 145.

In this course, students will use welding processes and metal forming techniques applied toward concepts of art to produce theme-driven, artistic, functional or sculptural projects. Basic skill development in hand-forging steel, forge welding, scroll forming, shaping, and joinery utilizing hammers, anvils, and gas forges are covered. Emphasis is on techniques and processes to demonstrate versatility and skill. Students are encouraged to incorporate both metal and wood into their projects and to add lighting, if appropriate. This course may be repeated for a total of six credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Spring Semester)

### **ARTZ 271 - Printmaking I**

Credit(s): 3

*Prerequisite(s):* ARTZ 105F.

This is an introductory course in the art and technique of Intaglio and collagraph. Basic plate preparation, experimentation with a variety of grounds and tones, and the use of the press will be covered. (Fall and Spring Semesters)

### **ARTZ 272 - Printmaking Studio: Etching**

Credit(s): 3

*Prerequisite(s):* ARTZ 271.

An extension of ARTZ 271, more advanced techniques are covered, including further experimentation with papers, inks and multiple plates. This course may be repeated for a total of nine credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

**Astronomy (ASTR)****ASTR 110N - Introduction to Astronomy**

Credit(s): 3

This course is an introduction to the history of astronomy, tools of the astronomer, the solar system, stellar bodies and phenomena, and the origin and evolution of the universe. (Fall Semester)

**Business Administration (BADM)****BADM 276 - Business Internship II**

Credit(s): 3

*Prerequisite(s):* a grade of "C" or better in BGEN 298, consent of internship coordinator and advisor.

A continuation of BGEN 298, students design and complete a project developed in cooperation with their internship employer. Interns prepare a portfolio to document their 150-hour internship experience. (All Semesters)

**Biochemistry (BCH)****BCH 280N - Biochemistry**

Credit(s): 3

*Prerequisite(s):* a grade of "C" or better in CHMY 221NL.

*Corequisite(s):* CHMY 223NL.

This course involves the study of cell organization; carbohydrate and lipid structure; protein and nucleic acid structure; enzyme kinetics; energetic; major metabolic pathways for carbohydrates, lipids, and amino acids; photosynthesis; and regulation of gene function. (Spring Semester)

**BCH 281L - Biochemistry Lab**

Credit(s): 2

*Prerequisite(s):* a grade of "C" or better in CHMY 221NL.

*Corequisite(s):* BCH 280N.

This laboratory course is designed to be taken concurrently with BCH 280N and is a project-based course that models biochemistry research. This course involves purification of enzyme from natural sources utilizing high-speed centrifugation, IEX and affinity chromatography; characterization of enzyme by gel electrophoresis, Bradford assay, and specific substrate assay; analysis of enzyme function by kinetic study; and structural study of enzyme by liquid chromatography-electrospray ionization mass spectrometry. (Spring Semester)

**Business: Finance (BFIN)****BFIN 205 - Personal Finance**

Credit(s): 3

This is an introductory course in personal finance and will expose the student to the issues and importance of personal finance.

This course introduces the concepts and applications of personal finance and the importance of personal finance in both business and everyday living. The focus is on explaining the process of financial planning and the logic behind it and why it is important to the potential small business person or to the individual. (Fall and Spring Semesters)

**BFIN 220 - Understanding Financial Statements**

Credit(s): 2

*Prerequisite(s):* ACTG 101, ACTG 102 or ACTG 201, ACTG 202 or instructor's consent.

This is an introductory course in understanding and using financial statements in the management of a small business. The course will cover property, plant/equipment, inventory, trend analysis, and a review of financial ratios that are used in a variety of tasks performed by the small business owner. (Fall and Spring Semesters)

**BFIN 222 - Small Business Budgeting**

Credit(s): 1

*Prerequisite(s):* ACTG 101, ACTG 102 or ACTG 201, ACTG 202 ; BFIN 220 or instructor's consent.

This is an introductory course on budgeting for the small business. An overview of the whole field of budgeting will be covered from the perspective of the small business owner/manager. (Fall and Spring Semesters)

**BFIN 224 - Cash Flow Analysis**

Credit(s): 2

*Prerequisite(s):* ACTG 101, ACTG 102 or ACTG 201, ACTG 202 or instructor's consent.

This is an introductory course in how to analyze cash flow in a small business. A survey of cash flow and how it is used by the small business owner in decision making will be covered. (Fall and Spring Semesters)

**BFIN 260 - Principles of Finance**

Credit(s): 4

*Prerequisite(s):* ACTG 101, ACTG 102 or ACTG 201, ECNS 201B.

A study of the principles of finance, this course emphasizes the application and integration of financial concepts in decision making. (Spring Semester)

**Business: General (BGEN)****BGEN 110 - Applied Business Leadership**

Credit(s): 3

This course will examine how leaders are developed.

Personalities will be examined using the Myers-Briggs Type Indicator and how this personality contributes to team dynamics. This course will also examine different leadership styles and how the student can become a good leader. (Spring Semester)

**BGEN 120 - Business Innovation: Concept to Launch**

Credit(s): 5

This course builds upon general problem-solving skills, as well as written and verbal communications surrounding the task of developing ideas into companies, and expanding the entrepreneurial mindset through activities and problem solving; development and refinement of new venture opportunity assessment and analysis. (Fall and Spring Semesters)

# Course Descriptions

2015-2016

## **BGEN 122 - Applied Business and Allied Health Math**

Credit(s): 4

*Prerequisite(s):* CAPP 106; M 065~ or instructor's consent.

This course reviews the use of basic mathematical concepts as they apply to business and health fields. Spreadsheets will be used to calculate cash reconciliations, payroll, discounts, interest, taxes, depreciation, inventory, time value of money, systems of measurement, and performing conversions in measurement, temperature, and time. (All Semesters)

## **BGEN 201 - Foundations of Business Ethics**

Credit(s): 3

This course is designed to apply business concepts in studying ethics. The course will help students differentiate between ethical and unethical practices in the business world. Topics covered include basic principles of ethics, social costs, justice and fairness, utilitarianism, free market and rights, ethics in the marketplace, business and external exchanges, and ethics relating to internal constituencies (employee issues). (Spring Semester)

## **BGEN 204 - Business Fundamentals**

Credit(s): 3

This course focuses on improving students' communication and critical thinking skills in the context of understanding the holistic nature of business. Students will explore the importance of a healthy interdependence between business and society and how the various functions of business (management, marketing, accounting, finance and technology) interact and support each other for operational success. (Fall and Spring Semesters)

## **BGEN 235 - Business Law**

Credit(s): 4

This course provides an introduction to law and its role in the business environment. The course will introduce the court system, litigation and arbitration, law of agency, contracts and torts, product liability, forms of domestic and international businesses and the related liabilities, employee rights, consumer protection, principles of antitrust and debtor/creditor relationships. Where appropriate, references to Montana law will be made. (Fall and Spring Semesters)

## **BGEN 280 - Business Planning**

Credit(s): 3

*Prerequisite(s):* BMGT 210, BMGT 235, or BMKT 225.

*Corequisite(s):* ACTG 101 or ACTG 201 or instructor's consent.

This course will deal with the three essential planning tools of any business, the Business Plan, the Marketing Plan, and the Advertising Plan. The course will explore the necessity of planning and how to develop mission statements, goals, objectives, and strategies. A variety of planning instruments will be examined and evaluated. Students will develop a business, marketing, and an advertising plan for a real or mythical business. (Spring Semester)

## **BGEN 298 - Internship**

Credit(s): 3

*Prerequisite(s):* completion of 30 semester credits with a grade point average of 2.0 or better. Submission of an internship application.

This course offers a supervised, structured learning experience at an approved business/organization. Students will receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students will receive assistance in developing application materials and finding worksites meeting learning and legal criteria from the Career Development Coordinator. (All Semesters)

## **BGEN 299 - Capstone**

Credit(s): 3

*Prerequisite(s):* ACTG 201, ACTG 202, BMGT 205C, BMGT 235, BMIS 211 (or ability to work in Microsoft Office/Windows), BMKT 225, ECNS 201B or ECNS 202GB, M 095~, or instructor's consent.

This course integrates various fields of business to help the student develop a unified understanding of business planning, strategy and application. In addition, the course helps to bridge the gulf between theoretical class work and the practical application of those classes to the business world. (Intermittently)

## **Biology: General (BIOB)**

### **BIOB 101NL - Discover Biology**

Credit(s): 4

This course, designed for non-biology majors, is a survey of organization and complexity of living organisms, including biological macromolecules, cell structure and function, metabolism and nutrition, reproduction, development, heredity, and the diversity of living organisms and their ecological relationships. General education credit can be earned for either BIOB 101NL or BIOB 160NL, but not both. Laboratory work is included. (All Semesters)

### **BIOB 105NL - Introduction to Biotechnology**

Credit(s): 3

This course is an introduction to the rapidly-expanding field of biotechnology and its applications to human and veterinary medicine, agriculture, biofuels, bioremediation, and bioinformatics. Laboratory exercises will include basic laboratory safety, measurement methods, microbial cell culture, bacterial transformation, and other core skills used in the biotechnology laboratory. Laboratory included. (Fall Semester)

### **BIOB 110N - Plant Science**

Credit(s): 3

The course introduces basic plant science principles including anatomy, physiology, growth, and the response of plants to their environment. The history, role, and importance of cultivated plants in society will be examined throughout. (Fall Semester)



## 2015-2016

## Course Descriptions

### **BIOB 126NL - General Science: Earth and Life Science**

Formerly: *NSCI 102NL The Nature of Science*

Credit(s): 5

This course explores topics in biological and earth sciences for prospective elementary school teachers and non-scientists. Topics are presented through lectures, laboratory exercises, and field trips. (Fall Semester)

### **BIOB 160NL - Principles of Living Systems**

Credit(s): 4

An introduction to the principles of biology, this course includes the chemical basis of life, the cell, metabolism, homeostasis, reproduction, development and heredity. Laboratory work included. (All Semesters)

### **BIOB 170N - Principles of Biological Diversity**

Credit(s): 3

*Prerequisite(s)*: BIOB 160NL or Biology Department's consent.

A survey of the major categories of living organisms including study of their structure, adaptations, evolution, and ecology. (Spring Semester)

### **BIOB 171L - Principles of Biological Diversity Laboratory**

Credit(s): 2

*Prerequisite(s)*: BIOB 160NL or Biology Department's consent.

*Corequisite(s)*: BIOB 170N.

A laboratory study of the major categories of living organisms including study of their structure, adaptations, evolution, and ecology. (Spring Semester)

### **BIOB 205 - Methods in Biotechnology**

Credit(s): 3

*Prerequisite(s)*: BIOB 105NL or Biology Department's consent.

This course is an introduction to the theory and practice of biotechnology methods including recombinant DNA technology, nucleic acid and protein isolation and analysis, mammalian cell culture, and immunological methods. Laboratory included. (Spring Semester)

### **BIOB 256NL - Introduction Biology: Cells to Organisms**

Credit(s): 4

*Prerequisite or Corequisite*: CHMY 141NL or higher, M 162M or STAT 216M, or instructor's consent.

This course is an introduction to the form and function of living organisms and their systems; consideration of chemical signaling included. Laboratory work includes involving inquiry-based experimentation and mathematical analysis. Suggested for biology or biochemistry majors transferring to schools requiring a more advanced or mathematically-based biology series. (Intermittently)

### **BIOB 258NL - Introduction Biology: Organism to Popltns**

Credit(s): 4

*Prerequisite or Corequisite*: BIOB 160NL or higher, M 162M or STAT 216M, or instructor's consent.

This course is an introduction to the diversity of organisms, their evolution and ecology. Laboratory work includes involving inquiry-based experimentation and mathematical analysis. Suggested for biology or biochemistry majors transferring to schools requiring a more advanced biology series. (Intermittently)

### **BIOB 260NL - Cellular and Molecular Biology**

Credit(s): 5

*Prerequisite(s)*: BIOB 160NL or Biology Department's consent.

*Prerequisite or Corequisite*: CHMY 123NL or CHMY 223NL.

This course is an introduction to the biology of the cell, and includes the nature of organization of the cell, growth, basic bioenergetic and enzyme function, cell environment, membrane structure and function, the chemical and physical mechanisms of metabolism in plants and animals, and the work performed by cells. Laboratory included. (Spring Semester)

### **BIOB 272N - Genetics and Evolution**

Credit(s): 4

*Prerequisite(s)*: BIOB 160NL or Biology Department's consent.

This course covers principles and mechanisms of inheritance and evolution and includes analysis of variability at individual and population levels, chromosomal changes, population genetics, macroevolution, speciation, extinction and molecular evolution. (Fall Semester)

### **BIOB 275N - General Genetics**

Credit(s): 4

*Prerequisite(s)*: BIOB 160NL or Biology Department's consent.

This course covers principles and mechanisms of inheritance and gene expression, analysis of variability at individual and population levels and chromosomal changes and speciation. (Fall Semester)

### **BIOB 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s)*: instructor's consent.

This course consists of undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

### **Biology: Ecology (BIOE)**

#### **BIOE 172N - Introductory Ecology**

Credit(s): 3

*Corequisite(s)*: BIOE 173L is advised.

A study of the principles of ecology with emphasis on ecosystems, this course considers the impact of human activities on the ecosystem. (Fall Semester)

#### **BIOE 173L - Introductory Ecology Laboratory**

Credit(s): 1

*Prerequisite or Corequisite*: BIOE 172N.

An introduction to field techniques and ecosystem analysis, this course considers the impact of human activities on the ecosystem. (Fall Semester)



## Course Descriptions

2015-2016

### **BIOE 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s)*: instructor's consent.

This course consists of undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

### **Biology: Human (BIOH)**

#### **BIOH 104N - Basic Human Biology**

Credit(s): 3

This course is designed for students in Allied Health programs. It familiarizes the student with the fundamental concepts in the systematic organization and functioning of the human body. Anatomical features and physiological processes of each system as they contribute to the overall homeostasis of the body are studied. (Fall and Spring Semesters)

#### **BIOH 105L - Basic Human Biology Laboratory**

Credit(s): 1

*Prerequisite or Corequisite*: BIOH 104N.

This course familiarizes the student with the fundamental concepts in the anatomy and physiology of the human body. Anatomical studies include bones, muscles, brain, and heart. Physiological processes in such systems as nervous, cardiovascular, respiratory, and urinary are studied as to how they contribute to the overall homeostasis of the body. (Fall and Spring Semesters)

#### **BIOH 201NL - Human Anatomy and Physiology I**

Credit(s): 4

*Prerequisite(s)*: BIOB 101NL or BIOB 160NL or CHMY 105NL or CHMY 121NL or instructor's consent.

This course is an introduction to anatomical methodology and physiological mechanisms. Students become familiar with the systematic organization of the human body at both the micro- and macro-structural levels, the normal functions of each organ in a particular system, and the interrelationships between structure and function. Specifically covered in this semester are an introduction to histology and the integumentary, skeletal, nervous, muscular, and endocrine systems. Laboratory included. (Fall and Spring Semesters)

#### **BIOH 211NL - Human Anatomy and Physiology II**

Credit(s): 4

*Prerequisite(s)*: BIOH 201 or instructor's consent.

In this continuation of BIOH 201, students are presented with a systematic exposure to the structural and functional workings of the cardiovascular, lymphatic, respiratory, digestive, excretory, and reproductive systems. Laboratory included. (Fall and Spring Semesters)

### **BIOH 285 - Human Dissection**

Credit(s): 2

*Prerequisite(s)*: BIOH 201NL, instructor's consent.

This course is an elective lab experience for those students who are interested in further anatomical studies. The course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

### **BIOH 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s)*: instructor's consent.

This course consists of undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

### **Biology (BIOL)**

#### **BIOL 170 - Disease Processes/ Pharmacology**

Credit(s): 4

*Prerequisite(s)*: BIOH 104N, BIOH 105L or BIOH 201NL; BIOH 211NL.

Pathophysiology (the study of disease) is a close examination of the disease process in the human body. Topics in this course include: 1) how the body's normal structure and function can be altered, 2) how the body responds to these disruptions in structure and function (i.e. cause and effect), and 3) current approaches to the treatment of these disruptions using drugs. In the emphasis of treatment, particular attention will be given to the area of pharmacology including drug categories, actions, reactions, and interactions. (Fall and Spring Semesters)

### **Biology: Micro (BIOM)**

#### **BIOM 108 - Introduction to Food and Beverage Fermentation**

Credit(s): 3

This course gives an introduction to fermentation and fermented products. Topics include products and basic methodologies used in fermentation. Ingredients, techniques, fermentation management, storage and sanitation are discussed. (Fall Semester)

#### **BIOM 208 - Applied Brewing Microbiology**

Credit(s): 3

This course will provide brewers with a theoretical and practical background in the microbiology of brewing. Emphasis will be placed on yeast, yeast handling, identification of beer-spoilage organisms using standard microbiological techniques. (Spring Semester)

#### **BIOM 250NL - Microbiology for Health Sciences**

Credit(s): 4

*Prerequisite(s)*: BIOB 160NL or BIOH 201NL or Biology Department's consent.

Introduction to the causative agents, epidemiology, prevention, and treatment of infectious diseases. Laboratory included. (Fall and Spring Semesters)

**BIOM 251L - Microbiology for Health Sciences Lab**

Credit(s): 1

*Corequisite(s)*: BIOM 250NL, BIOM 260N are recommended.

The laboratory study of microorganisms, their characteristics and activities. (Fall and Spring Semesters)

**BIOM 260N - General Microbiology**

Credit(s): 3

*Prerequisite(s)*: BIOB 160NL or Biology Department's consent.

A survey of the morphology, physiology, and classification of bacteria and other microorganisms, this course considers the applied aspects of microbiology. (Spring Semester)

**BIOM 261L - General Microbiology Lab**

Credit(s): 2

*Corequisite(s)*: BIOM 260N.

This course is an introduction to fundamental techniques for isolation, manipulation, and identification of microorganisms. Laboratory activities will relate to topics covered in BIOM 260N. (Intermittently)

**BIOM 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s)*: instructor's consent.

This course consists of undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**Biology: Organismal (BIOO)****BIOO 105NL - Introduction to Botany**

Credit(s): 3

An introduction to the basic principles of botany, this course covers the structure, physiology, reproduction and economic importance with emphasis on the vascular plants, and includes a brief survey of the major taxa. Laboratory work included. (Fall and Spring Semesters)

**BIOO 115N - Practical Botany**

Credit(s): 3

An introduction to the principles of botany, this course covers plants, their structure, growth and taxonomy as related to manipulation and utilization with emphasis on the identification and uses of local native plants. (Spring Semester)

**BIOO 215N - Field Botany**

Credit(s): 3

This course is an introduction to plant associations, including identification of plants emphasizing native flora with consideration of their environment. Field work may include hiking up to two miles on rugged, steep terrain. (Fall and Summer Semesters)

**BIOO 235NL - Rocky Mountain Flora**

Credit(s): 3

Based on identification of native Montana flora, this course includes methods of collection, preservation, and nomenclature of local flora. Laboratory included. (Spring Semester)

**BIOO 262NL - Introduction to Entomology**

Credit(s): 3

*Prerequisite(s)*: BIOB 160NL or equivalent or instructor's consent.

A survey of the basic structure and ecological roles of insects, this course includes identification of the major orders and families of insects. Laboratory work included. (Intermittently)

**BIOO 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s)*: instructor's consent.

This course consists of undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**Business: Management (BMGT)****BMGT 120 - Fundamentals of Risk Management and Insurance**

Credit(s): 3

This course analyzes individual and business risk and provides an understanding of the foundations, applications and selection of insurance. The fields of life insurance, health insurance, and property and liability insurance, social insurance (FICA, Medicare, Medicaid) employee benefits, and retirement benefits are studied. (Fall Semester)

**BMGT 205C - Professional Business Communication**

Credit(s): 3

*Prerequisite(s)*: WRIT 095~ or instructor's consent. AMGT 110 and AMGT 111 are recommended.

This course is designed to increase competency as a communicator. The course will review basic communication skills including listening, written, and oral. Study principles and techniques of business letters, memos, and reports using the direct, indirect and persuasive approaches. Emphasis will be on communicating for employment - resume, application letter, interview. There will be some emphasis on oral communication, conducting meetings, intercultural communications business technology and internet communication. (All Semesters)

**BMGT 210 - Small Business Entrepreneurship**

Credit(s): 3

This course is a practical, down-to-earth approach to planning, organizing, and managing a small business. While based on current research, theory, and practice, the material is presented from a how-to perspective with many practical examples and applications from the business world. (Fall Semesters)

**BMGT 215 - Human Resource Management**

Credit(s): 3

This course explores human resources in a globally competitive business environment, the legal context of employment decisions, diversity, securing human resources, developing human resources, compensation, labor management relations, and protecting and evaluating human resources. The class is designed to familiarize participants with current human resource practices and laws that apply to human resource careers regardless of their field. (Fall and Spring Semesters)



# Course Descriptions

2015-2016

## **BMGT 235 - Management**

Credit(s): 3

A comprehensive introduction to management theory, research and practice, this course integrates classical and modern concepts of management practice for a solid grounding in management principles which is essential to successfully guiding today's small or large, profit or not-for-profit organizations in a rapidly changing environment. (Fall and Spring Semesters)

## **BMGT 237 - Human Relations in Business**

Credit(s): 3

An introduction to the human side of organizations and to people in the world at work, this course examines such elements as leadership, organizational behavior, and the future of organizations. Discrimination, communications, and organizational change will be covered as well. (Fall and Spring Semesters)

## **BMGT 245 - Customer Service Management**

Credit(s): 3

*Prerequisite(s):* AMGT 150.

This course is designed to help manage people in customer service roles. The course will include finding and retaining quality people, the purpose of good customer service, training and supporting employees in these roles, and managing the mission statement for the business. (Intermittently)

## **BMGT 250 - Employment and Comp Strategies**

Credit(s): 3

This course examines compensation practices and philosophies, administrative tools used to manage employee compensation, and pay structure development. The course explains the major provisions of employee benefit programs including growth in benefit costs, effects of benefits management on cost and work-force quality, and regulatory constraints that affect the way employee benefits are designed and administered. (Spring Semester)

## **BMGT 263 - Legal Issues in Human Resources**

Credit(s): 3

This course introduces the student to an overview of legal issues in human resources and employment law. Topics covered include employment relationships, hiring, termination, employment discrimination, employment regulation (wage and hour, safety, workers' compensation) and employee evaluation. (Fall Semester)

## **Business: Management Information Systems (BMIS)**

### **BMIS 211 - Introduction to Business Decision Support**

Credit(s): 4

A project and problem-solving oriented course that focuses on the implementation of spreadsheets and databases in common business problems. Other topics discussed will include operating systems and word processing. (All Semesters)

## **BMIS 270 - MIS Foundations for Business**

Credit(s): 3

This course introduces the development, use, and management of computer-based information systems. (Intermittently)

## **BMIS 298 - Internship**

Credit(s): 3

*Prerequisite(s):* BMIS 270 and completion of 30 semester credits with a grade point average of 2.0 or better. Must have consent of internship coordinator and advisor.

This course offers a supervised, structured learning experience at an approved business/organization. Students will receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Prior to placement at an internship site, students will attend an internship orientation to learn the application and internship process. (All Semesters)

## **Business: Marketing (BMKT)**

### **BMKT 130 - Search Engine Marketing**

Credit(s): 3

Search engine marketing includes an introduction to the structure and function of search engine marketing; analysis of consumer markets and online habits; production, planning, and development of online identity; social responsibility; search engine algorithms and values; and creating the source code. (Spring Semester)

### **BMKT 131 - Introduction to Social Media Marketing**

Credit(s): 3

*Prerequisite(s):* BMKT 225.

This course will introduce students to the world of social networking as a marketing tool for any business. Students will become familiar with Facebook, Twitter, LinkedIn, and other social networking venues available. Students will also explore the tools available for Web 2.0. (Spring Semester)

### **BMKT 132 - Writing for Web Marketing**

Credit(s): 3

*Prerequisite(s):* BMKT 225.

This course will introduce students to the art of writing documents for web viewing. (Spring Semester)

### **BMKT 225 - Marketing**

Credit(s): 3

An introduction to the structure and function of marketing, this course includes analysis of consumer and industrial markets; production, planning and development; distributive structure; price determination and policies; social responsibility; and a brief look at international marketing. (Fall and Spring Semesters)

**Brewing (BREW)****BREW 101 - Brewing Methods I**

Credit(s): 4

*Prerequisite(s):* Admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course provides a hands-on overview of the brewing process, with an emphasis on the importance of sanitation in brewing. Students will also learn current beer industry trends, the impact of brewing and beer on society, and the responsible use of alcohol. (Fall Semester)

**BREW 102 - Brewing Methods II**

Credit(s): 4

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course will introduce students to the practical aspects of brewing at a brewing facility. In this second-level course, students will become familiar with brewing equipment and technology, and assist with the operation of the brewery, with an emphasis on safety and sanitation.

(Spring Semester)

**BREW 121 - Brewing Safety and Sanitation**

Credit(s): 2

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course addresses sanitation, handling, and safety as they relate to brewing and brewery management. Topics include sanitation, clean-in-place technology, and safety considerations specific to brewing.

(Fall Semester)

**BREW 131 - Beer Styles and Sensory Evaluation**

Credit(s): 3

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course provides an introduction to the range of established and emerging brew styles. Students will learn about each style and sub-category, and analyze the methods used to create them.

This course also provides an introduction to the critical evaluation and judging of a beer's sensory properties. Students will learn the vocabulary associated with judging, and will develop their ability to detect defects in beer and identify a wide range of beer flavors. (Fall Semester)

**BREW 141 - The Business of Brewing**

Credit(s): 2

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course covers the regulatory considerations facing breweries today. Topics include food safety, brew house safety, environmental compliance, labeling, and record-keeping. (Spring Semester)

**BREW 151 - Finishing Processes**

Credit(s): 3

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course provides an overview of finishing processes including maturation, carbonation, clarification, and stabilization. Topics include methods of secondary fermentation and aging, different filters and their operation, carbonation methods, and the principles of beer stabilization. (Spring Semester)

**BREW 152 - Beer Packaging**

Credit(s): 2

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

The basic methods of bottling, canning, and kegging beer will be discussed, with an emphasis on product shelf life and quality. (Spring Semester)

**BREW 201 - Brewing Methods III**

Credit(s): 4

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course will reinforce concepts learned in the program through practical brewing experience at the brewery. In this third level course, students will use their knowledge of chemistry and microbiology while gaining experience in quality assurance and control. (Fall Semester)

**BREW 202 - Brewing Methods IV**

Credit(s): 4

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course will further reinforce concepts learned in the program through practical brewing experience in the brewery. In this capstone course, students will apply knowledge and skills gained in the program to design, formulate, and brew their own beer product. An emphasis will be placed on providing customer service, and collaborating with colleagues and coworkers. (Spring Semester)

**BREW 221 - Brewery Equipment and Maintenance**

Credit(s): 3

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course covers the equipment in brewing and the techniques used for maintenance and repair. Topics in plumbing, electrical, and welding will be discussed and students will gain practical experience in equipment repair. (Fall Semester)

**BREW 222 - Environmental Sustainability in Brewing**

Credit(s): 2

*Prerequisite(s):* admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course deals with aspects of environmental sustainability in brewery design and operation. Topics include wastewater consumption and disposal, waste reduction, utility usage, and other brewery design considerations for sustainable development. (Fall Semester)





## Course Descriptions

2015-2016

### **BREW 298 - Internship: Professional Brewing**

Credit(s): 4

*Prerequisite(s)*: admission to the Brewing Science and Brewery Operations program or instructor's consent.

This course offers a supervised, structured learning experience at an approved brewery. Students will receive training in brewery operations, enhance their academic learning, and gain exposure to the workplace. Prior to placement at an internship site, students will attend an internship orientation to learn the application and internship process. (Spring Semester)

### **Chemical Addiction Studies (CAS)**

#### **CAS 140 - Addiction and Diversity**

Credit(s): 1

Addiction affects all members of society. Because of this, the substance abuse counselor must be knowledgeable of cultural, ethnic needs, and differences of the mosaic society where he or she is practicing. This course is designed to provide a working knowledge of the diversity needed for addiction counseling in a multicultural society. (Intermittently)

#### **CAS 242 - Fundamentals of Substance Abuse and Addictions**

Credit(s): 3

*Prerequisite(s)*: PSYX 100A, PSYX 150, or instructor's consent.

This course is an introduction to the field of addiction counseling. It focuses on current therapeutic trends, strategies, and modalities used in the treatment of addictions. Relapse and prevention strategies, along with treatment of special populations, will also be covered. (Fall Semester)

#### **CAS 248 - Substance Abuse Counseling II**

Credit(s): 3

*Prerequisite(s)*: CAS 242.

The purpose of this course is to present the student with advanced knowledge in the counseling process and specifically will address substance abuse. The objective is to increase the student's knowledge of counseling strategies. (Spring Semester)

#### **CAS 250 - Assessment and Case Management, Processes**

Credit(s): 2

*Prerequisite(s)*: CAS 242 or PSYX 100A.

This course will introduce the student to assessment and evaluation procedures used in addiction counseling. The student will be able to understand, describe, administer, and interpret the various testing and evaluation tools used in addiction counseling. (Spring Semester)

### **Chemistry (CHMY)**

#### **CHMY 105NL - Exploration in Chemistry**

Credit(s): 4

*Prerequisite(s)*: appropriate placement test score in math or grade of "C" or better in M 065~, or Chemistry Department consent.

An investigation of chemistry, including software and other tools, laboratory methods, and problem solving skills, topics in this course include the scientific method and its role in the continued development of chemistry; physical and chemical changes; chemical reactions; atoms, elements, and the periodic table; units of measure; dimensional analysis; uncertainty and propagation of error; states of matter; chemical bonding; writing and balancing chemical equations; naming chemical substances; and solving stoichiometry and limiting reactant problems. Laboratory included. (All Semesters)

#### **CHMY 121NL - Introduction to General Chemistry**

Credit(s): 4

*Prerequisite(s)*: appropriate placement test score in math or grade of "C" or better in M 090~; and one semester high school chemistry with grade of "C" or better or grade of "C" or better in CHMY 105NL; or Chemistry Department consent.

As the first semester of an introduction to general, inorganic, organic and biological chemistry, this course covers measurement systems, atomic structure, chemical periodicity, bonding, chemical reactions, acid-base chemistry, electrochemistry, nuclear chemistry. Laboratory included. (All Semesters)

#### **CHMY 123NL - Introduction to Organic Biochemistry**

Credit(s): 4

*Prerequisite(s)*: a grade of "C" or better in CHMY 121NL or CHMY 141NL.

An introduction into functional group organic chemistry and important biochemical structures, concepts, and processes, this course covers major biological molecules, including carbohydrates, lipids, proteins, and nucleic acids. Laboratory included. (Fall and Spring Semesters)

#### **CHMY 141NL - College Chemistry I**

Credit(s): 5

*Prerequisite(s)*: appropriate placement test score in math or grade of "C" or better in M 095~; and one year of high school chemistry with grade of "C" or better or grade of "C" or better in CHMY 121NL; or Chemistry Department consent.

Intended for science majors, this is the first of a two-semester course sequence of the general principles of modern chemistry, emphasizing the experimental nature of the science of chemistry and a more mathematical intensive approach, with emphasis on critical and analytical thought. Topics covered include stoichiometry, atomic structure, bonding, states of matter, and chemical reactivity. Laboratory included. (Fall and Spring Semesters)



**CHMY 143NL - College Chemistry II**

Credit(s): 5

*Prerequisite(s):* a grade of "C" or better in CHMY 141NL.

Intended for science majors, this is the second of a two-semester course sequence of the general principles of modern chemistry, emphasizing the experimental nature of the science of chemistry and a more mathematical intensive approach, with emphasis on critical and analytical thought. Topics covered include solutions, equilibria, kinetics, acids and bases, thermodynamics, electrochemistry, coordination compounds, organic and biochemical compounds. Laboratory included. (Fall and Spring Semesters)

**CHMY 160 - Pharmacology**

Credit(s): 3

Students are prepared to calculate drug dosages and learn legal aspects of pharmacology, specific terminology, specific drug regulations, classifications and therapeutic implications. Various groups of drugs are studied in detail. (Fall and Spring Semesters)

**CHMY 170 - Applied Brewing Chemistry**

Credit(s): 4

*Prerequisite(s):* a grade of "C" or better in CHMY 121NL or Chemistry Department's consent.

Application of chemistry to wort and beer production, including fermentation, filtration, and sanitation. Thermodynamics, pH, pressure, and properties of gases and liquids as applied to the production process and beer quality will be examined. Course includes laboratory covering monitoring and analysis techniques of the beer production process. (Spring Semester)

**CHMY 221NL - Organic Chemistry I**

Credit(s): 5

*Prerequisite(s):* a grade of "C" or better in CHMY 143NL.

This is the first semester of a one-year sequence with emphasis on fundamental concepts of structure, nomenclature, properties and reaction mechanisms of organic compounds and an introduction to biochemical molecules. Laboratory included. (Fall Semester)

**CHMY 223NL - Organic Chemistry II**

Credit(s): 5

*Prerequisite(s):* a grade of "C" or better in CHMY 221NL.

This is the second semester of a one-year sequence with emphasis on fundamental concepts of structure, nomenclature, properties and reaction mechanisms of organic compounds and an introduction to biochemical molecules. Laboratory included. (Spring Semester)

**CHMY 280NL - Forensic Science I**

Credit(s): 4

*Prerequisite(s):* appropriate placement test score in math or a grade of "C" or better in M 090-; and appropriate placement test score in writing or a grade of "C" or better in WRIT 095-.

A presentation of the techniques, skills, and limitations of the modern crime laboratory, including ancillary services, this course covers topics such as crime scene processing, pathology, anthropology, odontology, types of physical evidence, trace evidence (glass, soil, hair, paint), impression evidence (tools, tires, shoes, bite marks, serial numbers), friction ridge examination, firearms, and questioned documents. Laboratory work included. (Fall Semester)

**CHMY 282NL - Forensic Science II**

Credit(s): 4

*Prerequisite(s):* a grade of "C" or better in CHMY 280NL.

This course is a presentation of the techniques, skills, and limitations of the modern crime laboratory, including ancillary services, and an introduction to instrumentation, including GC, GCMS, FTIR, and electrophoresis. Topics include toxicology, controlled substances, biological fluids and stains, DNA, fire and explosion investigation, and vehicular accident reconstruction. Includes guest speakers, field trips and laboratory work. (Spring Semester)

**CHMY 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s):* instructor's consent.

This course consists of undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**Criminal Justice: Law Enforcement (CJLE)****CJLE 109C - Police Report Writing**

Credit(s): 3

This course will introduce students to the vocabulary and style of writing used in the criminal justice fields. Students will learn to write clear, concise and persuasive arrest reports, policy proposals, and other documents typically used in the criminal justice system. (Spring Semester)

**Criminal Justice (CJUS)****CJUS 121A - Introduction to Criminal Justice**

Credit(s): 3

This course introduces the student to the functions and practices of the agencies that make up the criminal justice system: police, courts, and corrections. The various stages in the criminal justice process are the focus. Ideological and organizational factors influencing decision-making throughout the criminal justice system are examined. (Fall and Spring Semesters)

## Course Descriptions

2015-2016

### **CJUS 200 - Principles of Criminal Law**

Credit(s): 3

This course is an introduction to substantive criminal law, with appropriate examples from particular crimes. Historical development of substantive criminal law and its role in society is also covered. (Fall Semester)

### **CJUS 220 - Introduction to Corrections**

Credit(s): 3

Institutional correctional systems at local, state and federal levels and community-based corrections, including probation and parole, are studied. The demographics of the prison population along with an examination of the inmate subculture and issues pertaining to special populations are also explored. (Spring Semester)

### **CJUS 230 - Police Organization**

Credit(s): 3

Covers the basic structure of law enforcement and the historical development of police departments, as applied to federal, state and municipal agencies. Examines current police practices and timely issues, such as police community relations, civil liability and ethics. (Spring Semester)

### **CJUS 231 - Criminal Evidence and Procedure**

Credit(s): 2

*Corequisite(s):* CJUS 271.

A practical approach to criminal procedure that emphasizes the relationship between law and procedure is the focus. Up-to-date analysis of U.S. Supreme Court decisions affecting criminal procedures is reviewed. (Fall Semester)

### **CJUS 271 - Introduction to Judicial Function**

Credit(s): 1

*Corequisite(s):* CJUS 231.

The structure and organization of local, state and federal court systems and the roles and responsibilities of the key figures in the trial process are explored. Various problems faced by the judiciary are also addressed. (Fall Semester)

### **CJUS 298 - Internship**

Credit(s): 3

*Prerequisite(s):* completion of 30 semester credits with a grade point average of 2.0 or better. Submission of an internship application.

This course offers a supervised, structured learning experience at an approved business/organization. Students will receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students will receive assistance in developing application materials and finding worksites meeting learning and legal criteria from the Career Development Coordinator. (All Semesters)

## **Computer Applications (CAPP)**

### **CAPP 103 - QuickBooks Fundamentals**

Credit(s): 2

*Prerequisite(s):* ACTG 101 or equivalent.

This course provides a step-by-step introduction to the terminology, concepts, and techniques used in QuickBooks Pro. It is designed for computer users who want a basic understanding of the capabilities of QuickBooks Pro and covers journal entries, customer and vendor activities, payroll, and closing activities for both serviced-based and merchandising-based businesses. (All Semesters)

### **CAPP 106 - Short Courses: Computer Applications**

Credit(s): 1

*Prerequisite(s):* AMGT 090~ or instructor's consent.

An introduction to computers and their capabilities for those people with no prior experience, this course is a straightforward, hands-on approach to provide people with basic skills to pursue additional computer courses. Basic concepts of word processing, spreadsheets, database, and presentation software are presented. (Fall and Spring Semesters)

### **CAPP 108 - Short Courses: MS Windows**

Credit(s): 1

*Prerequisite(s):* CAPP 106 or instructor's consent.

This course provides a quick step-by-step introduction to the terminology, concepts and techniques used in the windowing environment. It is designed for the novice and experienced computer and Windows users who want a basic understanding of the capabilities of the Windows environment and the applications contained in Microsoft's Windows software package. (Intermittently)

### **CAPP 110 - Short Courses: MS Outlook**

Credit(s): 1

This course is intended to help develop the skills necessary to work with Outlook. Topics include managing contacts, using the calendar feature, managing the inbox and customizing the software to use effectively and efficiently. (Spring Semester)

### **CAPP 112 - Short Courses: MS PowerPoint**

Credit(s): 1

This course provides an introduction to the processes of designing, developing and producing an information presentation with automated presentation graphics software. The student products include outlines, speaker notes, handouts, slides, and coordinated presentations from both overhead and video sources. (Fall and Spring Semesters)

### **CAPP 114 - Short Courses: MS Word**

Credit(s): 1

This course covers the basics of the Microsoft Word for Windows, including creating, saving, retrieving, and editing documents; line, character, and page formatting; and using the Speller/Thesaurus. (Fall and Spring Semesters)

## 2015-2016

### **CAPP 116 - Short Courses: MS Excel**

Credit(s): 1

This course is intended to help develop the skills necessary to work with spreadsheets. Topics include entering and manipulating different types of data, formatting basics, using functions to analyze information, making decisions with IF functions and formulas, sorting and filtering information and creating charts, Microsoft's Excel for Windows will be used as the teaching tool. (Fall and Spring Semesters)

### **CAPP 118 - Short Courses: MS Access**

Credit(s): 1

This course is intended to help develop the skills necessary to work with databases. Topics include creating tables, queries, forms, and reports. Microsoft's Access for Windows will be used as the teaching tool. (Intermittently)

### **CAPP 120 - Introduction to Computers**

Credit(s): 3

This course takes as its starting point the proposition that technology is central to the modern world as one of the primary tools impacting communication, learning, and advancement. Students will learn the driving principles behind computer systems, become familiar with influencing computer hardware, software, and network technology. Students will examine the management of information and material in word processors, spreadsheets, and databases, as well as the implication and safeguards for that information. The ethical implications of computing, such as security, privacy, patriot act, identity theft, and the social implications of information sharing will be given particular consideration. (Fall and Spring Semesters)

### **CAPP 131 - Basic MS Office**

Credit(s): 2

A course designed to introduce people with little computer experience to the expanding world of computing. Beginning and intermediate concepts in word processing, database, spreadsheets, and presentation software will be explored utilizing a hands-on approach. (Fall and Spring Semesters)

### **CAPP 154 - MS Word**

Credit(s): 3

This is a course in word processing using Microsoft Word or the current industry standard. The course includes creating, retrieving, and editing documents, as well as an introduction to some advanced features such as mail merge, graphics, WordArt, macros, and tables. (All Semesters)

### **CAPP 156 - MS Excel**

Credit(s): 3

A comprehensive look at the features and processing capabilities of spreadsheet software, topics in this course include developing and editing spreadsheets, creating efficient formulas, applying proper formatting, using "what if" functions and tools, macro development, and spreadsheet management. (Fall and Spring Semesters)

## Course Descriptions

### **CAPP 158 - MS Access**

Credit(s): 3

This course is a comprehensive study of relational databases using Microsoft Access. Topics include database theory, creation of tables, forms, reports, queries, and switchboards while utilizing the most recent version of Microsoft Access. (Intermittently)

## **Communication (COMX)**

### **COMX 111C - Introduction to Public Speaking**

Credit(s): 3

This course focuses on preparation, presentation, and criticism of speeches. Emphasis is on the development of public speaking techniques through constructive criticism. (All Semesters)

### **COMX 115C - Introduction to Interpersonal Communication**

Credit(s): 3

This course is a study of and practice in communication skills in professional life and in daily relationships. (All Semesters)

### **COMX 150CF - Video Communication**

Credit(s): 3

This course introduces video as a tool for human communication. It gives students experience in using video to design, produce, and deliver communication in publishing, advertising, entertainment, and education. Students learn to use basic computer tools and digital cameras to build works of communication applicable for television, film, and internet. (Fall and Spring Semesters)

### **COMX 215 - Negotiations/Conflict Resolution**

Credit(s): 3

This introductory course will focus on concepts, skills, and strategies for effective resolution of conflicts through negotiation. Emphasis will be placed on the application of concepts learned through the use of simulated exercises and case studies which allow students to apply, practice, and evaluate negotiation skills. (Fall and Spring Semesters)

### **COMX 217CF - Oral Interpretation of Literature**

Credit(s): 3

The techniques, practice, and performance of effective oral reading will be the subject of this course. Poetry, drama, children's literature, stories, speeches, and articles will be analyzed, practiced, and performed before the class. (Fall and Spring Semesters)

## **Creative Writing (CRWR)**

### **CRWR 110F - Beginning Fiction**

Credit(s): 3

This introductory writers' workshop focuses on the critique and revision of students' short fiction. Contemporary literary short stories, short shorts and parables will be emphasized. Students will study fiction elements and techniques, including character sketches, beginnings, dialogue, point of view, plot, authorial distance, significant detail, scene, characterization, and endings. (Fall and Spring Semesters)

## Course Descriptions

2015-2016

### **CRWR 111F - Beginning Poetry**

Credit(s): 3

This course focuses on the reading and writing of poetry with emphasis on the techniques of imaginative writing and critical appraisal. (All Semesters)

### **CRWR 210 - Introduction Fiction Workshop**

Credit(s): 3

This intermediate course focuses on critique and revision of students' short fiction or on chapters of students' novels. Students will be expected to finish three stories of literary quality. (Fall and Spring Semesters)

### **CRWR 211 - Introduction Poetry Workshop**

Credit(s): 3

An advanced course in the writing of poetry, this course considers special problems in this area as well as refinement of the student's skill. (All Semesters)

## **Computer Science (CS)**

### **CS 140 - Introduction to Information and Computer Science**

Credit(s): 3

*Prerequisite(s)*: admission into Health Information Technology program.

For students without an IT background, this course provides a basic overview of computer architecture; data organization, representation and structure; structure of programming languages; networking and data communication. Includes basic terminology of computing. (Internet course only.) (All Semesters)

## **Computer Science/Programming (CSCI)**

### **CSCI 100 - Introduction to Programming**

Credit(s): 3

*Prerequisite(s)*: CAPP 106 or instructor's consent.

This course is an introduction to elementary programming techniques. A wide range of programs will be written by the student and run on a computer. Students learn the techniques of looping, functions and subroutines, arrays, variables and data types, user input/output, file input/output, and appropriate programming practices common to most languages. (Intermittently)

### **CSCI 111 - Programming with Java I**

Credit(s): 4

This is the first semester of a course in fundamental computer science concepts using the high-level, object-oriented programming language Java. Topics covered are data types, arrays, basic programming constructs, iteration, decision statements, sequences, methods, exception handling, classes, objects, methods, encapsulation, data hiding, inheritance and polymorphism. (Fall and Spring Semesters)

### **CSCI 113 - Programming with C++ I**

Credit(s): 4

*Prerequisite(s)*: one programming class. Computer programming in C++.

Topics covered are data types, arrays, basic programming constructs, iteration, decision statements, sequences, methods, exception handling, classes, objects, methods, encapsulation, data hiding, inheritance and polymorphism. (Spring Semester)

### **CSCI 121 - Programming with Java II**

Credit(s): 4

*Prerequisite(s)*: CSCI 111.

This is a continuation of CSCI 111. Topics include error handling and debugging techniques, recursion, abstract data types, creating programs with multiple files and libraries, and creating straight forward GUI's that involve event driven programming and threaded programs. (Spring Semester)

### **CSCI 210 - Web Programming**

Credit(s): 4

*Prerequisite(s)*: CSCI 211.

This course uses PHP to create dynamic data-driven web pages. The emphasis will be on fundamentals of PHP and its syntax for the purpose of linking site pages to databases for queries, data manipulation, and updates. Topics include design and creation of server-side databases for interactive use by web pages; the use of SQL to search, filter, and add data driven by the user; and creation and population of forms and reports with query results. (Fall Semester)

### **CSCI 211 - Client Side Programming**

Credit(s): 4

This course introduces JavaScript for use in web pages. JavaScript is a popular scripting language that is widely supported in web browsers and other web tools that adds interactive functions to HTML pages. Topics covered are data types and operators, functions and events, the browser object model, form validation, cookie creation, and animation using Dynamic HTML. (Spring Semester)

### **CSCI 213 - Web Programming Techniques: PHP II**

Credit(s): 4

*Prerequisite(s)*: CSCI 210.

This course addresses the intermediate and advanced features of PHP. An emphasis is placed on object-oriented design and reuse, error handling, frameworks, managing sessions, carts, testing, and performance considerations. (Spring Semester)

### **CSCI 232 - Data Structures and Algorithms**

Credit(s): 3

*Prerequisite(s)*: CSCI 121 and M 171M\*.

The topics of this course include recursive algorithms, sorting techniques, time-complexity analysis, abstract data types include vectors, lists stacks and queues, binary trees, search trees, hash tables, dictionaries and the evaluation and selection of appropriate data types. (Fall Semester)

## 2015-2016

## Course Descriptions

### **CSCI 240 - Databases and SQL**

Credit(s): 3

*Prerequisite(s):* CAPP 106 or instructor's consent.

This course focuses on the concepts of relational databases. Topics include entity relationship diagrams, design process and normalization, table creation, records and typed fields, primary and foreign keys, and a thorough coverage of Structured Query Language (SQL) to create, query and change a relational database. (Intermittently)

### **CSCI 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s):* instructor's consent.

This course consists of undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

### **CSCI 298 - Internship**

Credit(s): 3

*Prerequisite(s):* completion of 30 semester credits with a grade point average of 2.0 or higher, including at least six credits in the student's major area of study. Admission only with consent of internship coordinator and advisor.

This course offers a supervised, structured learning experience at an approved business/organization. Students will receive training related to their field of study, enhance their academic learning and gain exposure to the workplace. Prior to placement at an internship site, students will attend an internship orientation to learn the application and internship process. (Fall and Spring Semesters)

## **Construction Trades (CSTN)**

### **CSTN 104 - Short Course: Woodworking Design and Construction**

Credit(s): 1

This course will introduce students to the fundamentals of woodworking. Students complete a project designed to take their woodworking skills to the next level. Specific techniques emphasized will vary by individual project. The course includes practice in shop and tool safety and the tools necessary to complete the project. This course may be repeated for a total of three credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

### **CSTN 125 - Basic Cabinetry and Furniture Making**

Credit(s): 3

This course will introduce students to the fundamentals of woodworking. An instructor assigned project will be completed by all class members. The course includes practice in shop and tool safety, bench woodwork, fitting, and basic machine operation and techniques for table saw, jointer, planer, band saw, drill press, router, sanding machines, and nailers. The instruction includes the use and care of hand tools, common wood joinery, gluing and clamping, survey of furniture woods and basic finishing techniques. (Fall and Spring Semesters)

### **CSTN 126 - Intermediate Cabinetry**

Credit(s): 4

*Prerequisite(s):* CSTN 125 or instructor's consent.

This course provides the student the opportunity to select, design, and construct a wood working project associated with cabinetry. Lectures include continuing shop and machine safety, design considerations, drawing, layout, and joinery. Shop practice in preparing stock, machining operations typical of carcass construction, fitting and assembly. Detailing and finishing techniques will also be covered. (Fall and Spring Semesters)

### **CSTN 127 - Intermediate Furniture Making**

Credit(s): 4

*Prerequisite(s):* CSTN 125 or instructor's consent.

This course provides the student the opportunity to select, design, and construct a wood working project associated with home or office furniture. Lectures include continuing shop and machine safety, design considerations, drawing, layout, and joinery. Shop practice in preparing stock, machining operations typical of furniture construction, fitting and assembly. Detailing and finishing techniques will also be covered. (Fall and Spring Semesters)

### **CSTN 130 - Introduction to Building Trades I**

Credit(s): 3

This course will explore blueprint and plan reading and delineate the role of building design, building site planning, and site preparation as it relates to the actual construction of a house. In addition, the student will gain a working knowledge of selected hand and power tools as they relate to construction-oriented projects. This will include use of all applicable tools and materials required in the construction of a house. All aspects of job site and workplace safety related to residential construction will be examined through lecture, video, and guest speakers. This course is part of the Building Trades core course selection and is taught in conjunction with CSTN 131 in which the student applies the principles and concepts learned during this class. (Fall Semester)

### **CSTN 131 - Building Trades Field Experience I**

Credit(s): 10

*Corequisite(s):* CSTN 130.

This course will provide a hands-on experience in blueprint and plan reading and delineate the role of building design, building site planning, and site preparation as it relates to the actual construction of a house. In addition, the student will demonstrate a working knowledge of selected hand and power tools as they relate to construction-oriented projects. This will include use of all applicable tools and materials required in the construction of a house. All aspects of job site and workplace safety related to residential construction will be practiced and evaluated. This course is part of the Building Trades core course selection and is taught in conjunction with CSTN 130 in which the student studies the principles and concepts of the Building Trades profession. (Fall Semester)



## **CSTN 140 - Introduction to Building Trades II**

Credit(s): 3

*Prerequisite(s):* CSTN 130, CSTN 131.

This course is the second semester progressive Building Trades course. It continues to emphasize blueprint and plan reading and delineates the role of exterior and interior finish as it relates to the actual construction of a house. The student will gain a working knowledge of window and door installation; plumbing, electrical, and heating/air conditioning procedures; insulation techniques; and drywall, flooring and trim installation. This will include use of all applicable tools and materials required in the finish construction of a house. All aspects of job site and workplace safety related to residential construction will be examined through lecture, video, and guest speakers. This course is part of the Building Trades core course selection and is taught in conjunction with CSTN 141 in which the student applies the principles and concepts learned during this course. (Spring Semester)

## **CSTN 141 - Building Trades Field Experience II**

Credit(s): 10

*Prerequisite(s):* CSTN 130, CSTN 131.

*Corequisite(s):* CSTN 140.

This course will provide a hands-on experience in blueprint and plan reading and delineate the role of exterior and interior finish as it relates to the actual construction of a house. The student will gain a working knowledge of window and door installation; plumbing, electrical, and heating/air conditioning procedures; insulation techniques; and drywall, flooring and trim installation. This will include use of all applicable tools and materials required in the finish construction of a house. All aspects of job site and workplace safety related to residential construction will be examined through lecture, video, and guest speakers. This course is part of the Building Trades core course selection and is taught in conjunction with CSTN 140 in which the student studies the principles and concepts of the Building Trades profession. (Spring Semester)

## **CSTN 195 - Field Experience: Building Trades**

Credit(s): 3

This course will provide hands-on experience in plan reading and delineate the role of building design, building site planning, and site preparation as it relates to the actual construction of a house. Students will have the opportunity to explore safe and proper use of hand and power tools, construction based math, basic surveying, site preparation, basic concrete work, plan reading, frame and finish carpentry, along with employability job skills. All aspects of job site and workplace safety related to residential construction will be practiced and evaluated. (Fall and Spring Semester)

## **CSTN 195 - Field Experience: Carpentry**

Credit(s): 4

This course will provide a hands-on experience in actual carpentry projects. In addition, the student will demonstrate a working knowledge of selected hand and power tools as they relate to construction-oriented projects. This will include use of all applicable tools and materials required in the construction process. All aspects of job site and workplace safety will be practiced and evaluated during this course. (Fall Semester)

## **CSTN 271 - Construction Project Management**

Credit(s): 6

*Prerequisite(s):* CSTN 141.

This course will provide a hands-on experience in the management aspects of the Building Trades program and delineate the role of a project leader or lead carpenter in planning and managing a construction site during the layout through framing phases of a residential home. Course requirements include work scheduling, the preparation and solicitation of material lists to building suppliers, selection and award of competitive bids for building supplies, and scheduling for delivery and availability of materials and sub-contractor support. Students will also provide remedial instruction/assistance to first-year students experiencing difficulty with learning objectives outlined in CSTN 130 - CSTN 141. This course will include rotational assignments with local contractors and team leader assignments with the student built house project. Students participating in the contractor rotations will be paid through a local temporary labor business and be provided appropriate liability insurance and workman's compensation benefits. (All Semesters)

## **CSTN 281 - Construction Project Management II**

Credit(s): 6

*Prerequisite(s):* CSTN 141.

This course will provide a hands-on experience in the management aspects of the Building Trades program and delineate the role of a project leader or lead carpenter in planning and managing a construction site during the finishing phases of a residential home. Course requirements include work scheduling, the preparation and solicitation of material lists to building suppliers, selection and award of competitive bids for building supplies, and scheduling for delivery and availability of materials and sub-contractor support. Students will also provide remedial instruction/assistance to first-year students experiencing difficulty with learning objectives outlined in CSTN 130 - CSTN 141. This course will include rotational assignments with local contractors and team leader assignments with the student built house project. Students participating in the contractor rotations will be paid through a local temporary labor business and be provided appropriate liability insurance and workman's compensation benefits. (All Semesters)

## **Culinary Arts (CULA)**

### **CULA 103 - Professional Chef I: Savory**

Credit(s): 5

*Prerequisite(s):* instructor's consent.

*Corequisite(s):* CULA 106\*

An introduction to and application of fundamental cooking theories and techniques for professional cooking, this course prepares students to use a variety of essential cooking principals. Topics include product identification, safe handling of food items/sanitation, knife skills, basic garnishing and food presentation, use and care of equipment, kitchen structure/organization, culinary history and terminology, simple recipe development, and seasoning/flavoring. Competencies in knife skills, dairy and egg products, mise en place, principles of cooking, stocks, soups, starches, fruits and vegetables and basic garde manger will be addressed. (Fall Semester)

## 2015-2016

## Course Descriptions

### **CULA 104 - Professional Chef II: Savory**

Credit(s): 5

*Prerequisite(s):* instructor's consent.

*Corequisite(s):* CULA 108.

Part II in the Professional Culinary Arts Series, this course integrates the fundamental culinary skills learned in CULA 103 with more advanced techniques, including production and presentation of full plates and concentration on development of flavor. Topics include poultry, meats (beef, veal, lamb, pork), fish and shellfish. (Spring Semester)

### **CULA 105 - Food Service Sanitation**

*CULA 105 Food Service Sanitation*

Credit(s): 1

*Prerequisite(s):* instructor's consent

This course provides a thorough understanding of sanitation as it relates to the production, service, and management of a food service facility. It covers microorganisms, food borne illness, their causes and preventions, and food service workers' responsibilities in maintaining safety and public health. This class meets the necessary requirements of the National Restaurant Association's ServSafe Sanitation Certification. (Fall Semester)

### **CULA 106 - Professional Chef I: Baking and Pastry**

Credit(s): 5

*Prerequisite(s):* Instructor's consent.

*Corequisite(s):* CULA 103

An introduction to and application of fundamental baking theories and techniques for professional baking, this course prepares students to use a variety of essential baking principals. In addition, the class will address topics that include: product identification, safe handling of food items/sanitation, proper storage/receiving, use and care of equipment, kitchen structure/organization, culinary history and terminology, simple recipe development, and flavoring. Competencies in: quick breads, yeast breads, basic dessert sauces, syrups, creams, cookies, and pies. (Fall Semester)

### **CULA 108 - Professional Chef II: Baking and Pastry**

Credit(s): 5

*Prerequisite(s):* Instructor's consent.

*Corequisite(s):* CULA 104

Part II in the Professional Culinary Arts Series, this course integrates the fundamental baking skills learned in CULA 103 with more advanced techniques. Topics include: Advanced Custards and Creams, Frozen Desserts, Fruit Desserts and Garnishes, Basic Cakes with Icings, and chocolate. (Spring Semester)

### **CULA 111 - Catering: Fall**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

This course provides practical work experience in catering for both on and off-premise, college-sanctioned events during the fall semester. Students are provided with an opportunity to showcase their knowledge and skills in culinary, baking, pastry, and management. (Fall Semester)

### **CULA 111 - Catering: Spring**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

This course provides practical work experience in catering for both on and off-premise college sanctioned events during the spring semester. Students are provided with an opportunity to showcase their knowledge and skills in culinary, baking, pastry, and management. (Spring Semester)

### **CULA 111 - Catering: Summer**

Credit(s): 2

*Prerequisite(s):* instructor's consent.

This course provides practical work experience in catering for both on and off-premise, college-sanctioned events during the summer semester. Students are provided with an opportunity to showcase their knowledge and skills in culinary, baking, pastry, and management. (Summer Semester)

### **CULA 120 - Purchasing and Product Identification**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

This course addresses the fundamentals of selection, procurement, storage, receiving, and issuing used by food service establishments. Principals of purchasing will be examined, including an introduction to computer software used throughout the industry for inventory and purchasing. (Fall Semester)

### **CULA 148 - Food and Beverage Service**

Credit(s): 2

*Prerequisite(s):* instructor's consent.

A comprehensive review of food and beverage service in various outlets. This course will address the principles and procedures of operating successfully in a food and/or beverage facility. Students will also be provided with information and tools to help them understand and apply strategies for improving guest relations inter-relationships between front and back of house staff, and developing labor and revenue control systems. (Fall Semester)

### **CULA 149 - Food Service Lab**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

This course focuses on practical application of food and beverage service in various outlets. A minimum of 30 hours of service at events is required for completion of this course. (Fall and Spring Semesters)

### **CULA 152 - Chef's Table**

Credit(s): 2

*Prerequisite(s):* instructor's consent.

This course is an integration of techniques and theory learned throughout the first and/or second semesters of study with practical work experience in the Chef's Table, an on-campus food service operation. Students benefit from this experience by gaining confidence with their skills in menu planning, food production, and service. Additionally, this experience will give students critical practical experience with a live audience before entering the workforce. (Fall and Spring Semesters)

## Course Descriptions

2015-2016

### **CULA 201 - Professional Chef III**

Credit(s): 6

*Prerequisite(s):* instructor's consent.

Part III in the Professional Culinary Arts Series, this course integrates all culinary and baking skills learned to this point with more advanced techniques. Speed in production, teamwork, presentation/plating, and development of flavor continue to be emphasized and expanded. Students will incorporate procedures from all previous courses with an exploration of new topics, including international cuisine, American regional cuisine, garde manger, complex cakes, petit fours, chocolates, and basic sugar work. (Summer Semester)

### **CULA 210 - Nutritional Cooking**

Credit(s): 2

*Prerequisite(s):* instructor's consent.

This course introduces students to the basic elements of nutrition, discusses nutritional menu planning, development of healthy recipes, and describes marketing nutrition in the hospitality industry. As consumer demands for healthful eating continue to increase, professionals in food service must have a thorough knowledge of nutrition to best meet and exceed those needs. The characteristics, functions and food sources of the major nutrients and the procedures used to maximize nutrient retention in preparation and storage of foods will be examined. Students will apply the principles of nutrient needs throughout the life cycle to menu planning and food production. (Summer Semester)

### **CULA 220 - Purchasing and Cost Control**

Credit(s): 3

*Prerequisite(s):* appropriate placement test score or a grade of "C-" or better in M 065 and instructor's consent.

A continuation of CULA 120, this course addresses purchasing and cost controls used by food service establishments. Principles of purchasing and cost control management will be examined for their effect on the profitability of hospitality operations. (Spring Semester)

### **CULA 240 - Menu Planning**

Credit(s): 2

*Prerequisite(s):* instructor's consent.

This course is an introduction to the fundamentals of menu construction. Emphasis is placed on the importance of the menu in creating a successful business. Throughout the semester, students will examine and analyze various models and learn how changes to the menu can markedly increase/decrease sales, create interest, meet individual tastes and nutritional needs, and be used as an important sales and marketing tool. (Fall Semester)

### **CULA 248 - Bar and Beverage Management**

Credit(s): 2

*Prerequisite(s):* instructor's consent.

This course explores management/operation of beverage service in today's competitive hospitality industry. Emphasis is placed on: knowing your product, the relationship between beverages and food, equipment and procedures for operating a beverage service, laws and procedures related to responsible service of alcohol, and the process of implementing internal control systems. Topics include: learning the basic production processes for distillation and fermentation; distinguishing wines by grape and/or fruit, origin/growing region; various types of spirits and mixology; comparison of different types of beers, profitability of nonalcoholic beverages; safety and sanitation; staffing and supervision; liabilities and the guest; regulations within the industry; promoting the operation; and monitoring costs and profits. (Fall Semester)

### **CULA 250 - Hospitality Supervision**

Credit(s): 3

*Prerequisite(s):* instructor's consent.

A continuation of CULA 148, this course addresses the function of management/supervision as it pertains to the hospitality industry. Topics include: history, growth and development of food and beverage service, theories in supervision, organizational and strategic tools for increasing motivation and productivity, human resource management, financial planning and marketing. Beverage management is explored in-depth with an emphasis on discussion of the basic production processes for distillation and fermentation, distinguishing wines by grape and/or fruit, origin/growing region, and production process; evaluation of the relationship between food and beverages; and procedures for operating beverage service and for implementing internal control systems. (Spring Semester)

### **CULA 299 - Capstone: Professional Chef IV**

Credit(s): 12

*Prerequisite(s):* instructor's consent.

Part IV and the final course in the Professional Culinary Arts Series. This course provides a practical approach to planning, organizing, and managing a restaurant. Students will apply competencies developed throughout the culinary arts program in order to establish a working restaurant. Students are responsible for everything from initial conception of the restaurant to menu planning, food costing, creation and testing of original menu dishes, cooking, serving, and presentation of the final menu to guests at live luncheons in front of paying customers. (Fall Semester)

**Dance (DANC)****DANC 194 - Seminar/Workshop**

Credit(s): 3

The focus of this course is to instruct the student in the awareness of the body used in the theatre performance style. This is done through understanding, practicing, and executing the basic technical moves of this form of dance. The vocabulary of stops and moves are taught carefully so that the student can learn, appreciate, and understand how the body and muscles work together for a fluid and strong performance. (Intermittently)

**Drafting Design (DDSN)****DDSN 114 - Introduction to CAD**

Credit(s): 3

*Prerequisite(s):* CAPP 106 or instructor's consent.

A systems-oriented class designed to introduce students to the concepts, techniques, and applications of PC-based computer aided drafting. The course will provide students with the competencies required to create, edit, and output drawings in both digital and printed format. Command structures, coordinate drawing, text dimensions, and fill structures will be covered. (Fall and Spring Semesters)

**DDSN 135 - Solidworks**

Credit(s): 2

This course presents the fundamental skills and concepts to build parametric model parts and assemblies and how to make simple drawings of those parts and assemblies. This course is designed around a process-based training approach emphasizing the processes and procedures necessary to complete a particular task. By utilizing case studies to illustrate these processes, the student learns the necessary commands, options, and menus in the context of completing a design task within SOLIDWORKS. An introduction to the transferability and compatibility of SOLIDWORKS, MASTERCAM, GIBSCAM, and Pro-Engineer software is provided. (Fall and Spring Semesters)

**Emergency Care Provider (ECP)****ECP 100 - First Aid and CPR**

Credit(s): 2

Procedures and techniques of immediate emergency care for injury or sudden illness are learned. This includes first aid for minor injuries, rescue breathing, CPR and other life-saving techniques. CPR certification is available. (Fall and Spring Semesters)

**ECP 104 - Workplace Safety**

Credit(s): 1

This course studies policies, compliance, enforcement, and reporting of work site safety issues. In addition, the American Red Cross Standards for First Aid and CPR training are presented to provide the skills necessary to efficiently respond to workplace emergencies. Coursework will focus on personal ability to act and interact ethically and effectively in both self-practice and co-worker enforcement of safety policies. The ethical responsibility to report safety violations and means of coping with accidents that involve the death of a team member or mass casualties within a workplace will also be studied. Students will employ hands-on practices to demonstrate skills in first aid and CPR. Real life scenarios will be presented to enable students in gaining an understanding of one's self and co-workers in relationship to responding, treating, and coping with workplace safety practices and medical emergencies. (Fall and Spring Semesters)

**ECP 130 - Emergency Medical Technician**

Credit(s): 5

This course is the nationally recommended minimum level of training for ambulance personnel and is considered the desired level of medical training by many fire departments. The course focuses on skill development in the primary responsibilities of the Emergency Medical Technician, which are to bring emergency medical care to victims of emergencies, to stabilize their condition, and to transport them safely and expeditiously to an appropriate facility. This course is a combination of classroom work, skills lab and practical experience. Upon successful completion of the course, graduates are eligible to sit for the National Registry certification examinations. All aspects of authorization/certification are the responsibility of the student. (Fall and Spring Semesters)

**ECP 148 - EMT Field Practicum**

Credit(s): 2

*Prerequisite(s):* Montana EMT-B License.

For students currently licensed in Montana to an EMT-basic level, this opportunity will allow students to gain experience operating as an EMT member of an advanced life support team. This is valuable experience to gain prior to enrolling in the paramedic sections. (Summer Semester)

**ECP 200 - Transition to Paramedic Care**

Credit(s): 3

*Prerequisite(s):* program director's consent.

This course provides an opportunity for the EMT to start learning the cognitive, psychomotor, and behavioral differences between an EMT and paramedic. Topics covered include roles and responsibilities of the paramedic; EMS systems; licensure/recertification requirements; medical/legal issues; communications and documentation; anatomy and physiology review; pharmacology and emergency medications, and current issues that impact the EMS profession. (Fall Semester)

# Course Descriptions

2015-2016

## **ECP 201 - Paramedic Fundamentals**

Credit(s): 3

*Prerequisite(s):* program director's consent.

This course prepares the paramedic student in the basic knowledge and skills needed in the pre-hospital environment. Topics covered include initial patient assessment and management; airway management and ventilation; pathophysiology of shock; emergency pharmacology and respiratory emergencies. (Fall Semester)

## **ECP 202 - Paramedic Fundamentals Lab**

Credit(s): 1

*Prerequisite(s):* program director's consent.

This course prepares the paramedic student in the psychomotor skills and assists them in gaining the manipulative skill necessary to effectively manage the tasks in ECP 201. (Fall Semester)

## **ECP 204 - Medical Emergencies I**

Credit(s): 3

*Prerequisite(s):* program director's consent.

This course provides an in-depth study in the pathophysiology and management of cardiovascular disease and related emergencies. Students will also study obstetrical emergencies, neonatal emergencies and pediatric emergencies. (Fall Semester)

## **ECP 205 - Medical Emergencies I Lab**

Credit(s): 1

*Prerequisite(s):* program director's consent.

This course provides the psychomotor skills in the management of cardiovascular disease and related emergencies. Students will also develop the psychomotor skills to manage obstetrical emergencies, neonatal emergencies and pediatric emergencies. (Fall Semester)

## **ECP 206 - EMS Case Studies**

Credit(s): 3

*Prerequisite(s):* program director's consent.

This course provides an opportunity to study and manage trauma and medical emergencies from a case study perspective. Trauma topics include shock, head, spinal, thoracic and abdominal trauma, burns and environmental emergencies. Medical topics include Respiratory and Cardiac emergencies, neurologic emergencies, endocrine, hematology, infectious diseases, and anaphylaxis. (Summer Semester)

## **ECP 216 - Hospital Clinical I**

Credit(s): 5

*Prerequisite(s):* program director's consent.

This course provides the opportunity to apply, in a clinical setting, the didactic knowledge and skills developed in the classroom and lab. This course serves as the first stage in assisting the student to become an employable EMS provider. Clinical skills addressed include patient assessment and evaluation, vital signs management, development of airway management skills, development of communication skills, introduction to various skills necessary for patient care and the development of safety practices. (Summer Semester)

## **ECP 230 - Trauma**

Credit(s): 3

*Prerequisite(s):* program director's consent.

This course provides an intensive look at the pathophysiology and management of trauma to include assessment of the trauma patient; management of head injuries, chest injuries, abdominal injuries, spinal injuries, orthopedic injuries; management of the multi-trauma patient, management of special airway problems, management of environmental emergencies and current trends in trauma management.

(Spring Semester)

## **ECP 231 - Trauma Lab**

Credit(s): 1

*Prerequisite(s):* program director's consent.

This course allows the student to develop the necessary psychomotor skills to successfully manage a trauma patient, including: management of head injuries, chest injuries, abdominal injuries, spinal injuries, orthopedic injuries; management of the multi-trauma patient, management of special airway problems and current trends in trauma management. (Spring Semester)

## **ECP 234 - Medical Emergencies II**

Credit(s): 3

*Prerequisite(s):* program director's consent.

This course provides an intensive look at the pathophysiology and management of medical emergencies to include nervous system, endocrine, the acute abdomen, anaphylaxis, toxicology and substance abuse, behavioral emergencies, infectious diseases, hematology, and geriatric emergencies. (Spring Semester)

## **ECP 235 - EMS Operations**

Credit(s): 3

*Prerequisite(s):* program director's consent.

This course provides an in-depth look at EMS transport operations, incident management and multiple casualty incidents; vehicle extrication and special rescue, hazardous materials, terrorism, disaster response, and crime scene awareness. Students will also complete studies in National Incident Management Systems (NIMS) and Incident Command Systems (ICS). (Spring Semester)

## **ECP 236 - Medical II / EMS Operations Lab**

Credit(s): 1

*Prerequisite(s):* Program director's consent

This course provides the psychomotor component related to medical emergencies; EMS transport operations, incident management and multiple casualty incidents; vehicle extrication and special rescue, hazardous materials, terrorism, disaster response, and crime scene awareness. Students will also complete studies in National Incident Management Systems (NIMS) and Incident Command Systems (ICS). (Spring Semester)



**ECP 246 - Hospital Clinical II**

Credit(s): 6

*Prerequisite(s):* Program director's consent

This course is a continuation of the clinical skills started in ECP 216. It provides the student with the opportunity to apply, in a clinical setting, the didactic knowledge and skills developed in the classroom and lab. This course serves as the final stage in assisting the student to become an employable EMS provider. Clinical skills addressed include electrocardiology; care of the critical patient; assessment and management of acute and chronic disease; pediatric care; obstetrical and neonatal care; and behavioral intervention techniques.

(Spring Semester)

**ECP 250 - NREMT Exam Preparation**

Credit(s): 2

*Prerequisite(s):* Program director's consent

This course prepares the paramedic student for the national registry paramedic exam. It is a review of the cognitive and affective behaviors taught throughout the fall and spring semesters of the paramedic program. (Summer Semester)

**ECP 251 - NREMT Exam Preparation Lab**

Credit(s): 2

*Prerequisite(s):* Program director's consent

This course prepares the paramedic student for the national registry paramedic psychomotor exam. It is a review of the psychomotor skills taught throughout the fall and spring semesters of the paramedic program. (Summer Semester)

**ECP 295 - Field Experience: Clinical III**

Credit(s): 8

*Prerequisite(s):* Program director's consent

This course provides the opportunity to apply, in the field, the didactic knowledge and skills developed in the classroom and lab. This course serves as the final field experience in assisting the student to become an employable EMS provider. Cognitive, psychomotor, and affective evaluation skills addressed include patient assessment, history gathering, treatment prioritizing, diagnostic impression, protocol knowledge, radio communication, written documentation, airway management, fluid/drug management, cardiac management, trauma and medical emergencies management, attitude, professionalism, assertiveness, and team leader qualities. (Summer Semester)

**ECP 298 - Internship: Paramedicine**

Credit(s): 2

*Prerequisite(s):* ECP 295 Field Experience, program director's consent.

This course offers a supervised, structured learning and observational experience in a pre-hospital emergency medical care setting with an approved business/organization. Students will receive training related to their field of study, enhance their academic learning and gain an exposure to this field. Students will receive assistance in developing application materials and finding work sites that meet learning and legal criteria from the Career Development Coordinator. (Summer Semester)

**Economics (ECNS)****ECNS 101GB - Economic Way of Thinking**

Credit(s): 3

A critical study of social issues using the constructs of incentives and the role of markets and government policy, this course provides a framework of analytical tools useful in the analysis of contemporary social issues. The normative ramifications of government regulation and deregulation, market power, welfare policies, changing economic structures both in the U.S. and globally, and the implications of reliance on free markets to determine resource allocation and pricing are discussed in the context of economic analysis. (Fall and Spring Semesters)

**ECNS 132 - Economics and the Environment**

Credit(s): 3

The application of economic analysis (cost/benefit and supply and demand) to environmental topics including renewable and non-renewable natural resource issues, environmental resource use, pollution control issues, and the global environment. The role of government and governmental environmental policy will be analyzed. (Spring Semester)

**ECNS 201B - Principles of Microeconomics**

Credit(s): 3

This course is an introduction to the fundamental principles and concepts of individual, business, and government behavior, including basic economic analysis of choice and its consequences, and supply and demand. Additional analysis of the costs of production and theories of business firm output and pricing decisions, labor and wage determination, income distribution, politics, health care and environmental issues will be addressed. (Fall and Spring Semesters)

**ECNS 202GB - Principles of Macroeconomics**

Credit(s): 3

This course is an introduction to the fundamental principles and concepts of national economies, including basic economic analysis of choice and its consequences and supply and demand. The problems and proposed solutions of national economies are addressed, including unemployment and inflation, national income accounting, economic growth, fiscal and monetary policy, business cycle theories and international trade. (Fall and Spring Semesters)



# Course Descriptions

2015-2016

## **ECNS 210 - The Economics of Health Care**

Credit(s): 3

This course applies microeconomic tools to the study of health care systems. The unique features of health care as a commodity are explored as well as the demand for health and medical care services, the economic incentives behind the behavior of medical care providers, and the functioning of health insurance markets in the provision of health care services. The role of government in the provision and financing of health care is also explored, and current proposals for health care reform are analyzed. (Spring Semester)

## **Early Childhood Education (EDEC)**

### **EDEC 108 - Introduction to Early Childhood Education**

Credit(s): 3

This course provides an overview of early childhood history, practice and relevant issues. It will focus on program philosophies and the importance of developmentally appropriate practices in early childhood settings. Students will learn of the unique needs of young children and families. Students will also learn about the professional opportunities in the field of early childhood education. (Fall Semester)

### **EDEC 130 - Health, Safety, and Nutrition in Early Childhood**

Credit(s): 3

This course is designed to increase teachers' and parents' understandings of the unique health and safety needs of young children. Students will learn how to incorporate transitions and scheduling into learning goals. (Fall Semester)

### **EDEC 135 - Language and Literature for Young Children**

Credit(s): 2

*Prerequisite(s):* EDEC 108, EDEC 245, EDEC 281.

This course will explore when and how to use books and language to meet specific needs, and how to create an environment that encourages and promotes the emergence of literacy in young children. (Fall Semester)

### **EDEC 210 - Meeting the Needs of Families**

Credit(s): 3

This course includes the development of child advocacy skills through awareness of the child's role in the family and society. The student will increase the understanding of diverse family structure and techniques to encourage parent-teacher partnerships. Students will learn about existing community resources and develop the ability to access resources to meet the needs of children and families. (Spring Semester)

### **EDEC 230 - Positive Child Guidance**

Credit(s): 3

*Prerequisite(s):* EDEC 108, EDEC 245, or instructor's consent.

This course includes the development of child advocacy skills through awareness of the child's role in the family and society. The student will increase the understanding of diverse family structure and techniques to encourage parent-teacher partnerships. Students will learn about existing community resources and develop the ability to access resources to meet the needs of children and families. (Fall Semester)

## **EDEC 235 - Creative Art for the Developing Child**

Credit(s): 2

*Prerequisite(s):* EDEC 108, EDEC 245, EDEC 281, or instructor's consent.

This course focuses on the development of children's art and ways to implement developmentally appropriate art activities in learning environments for young children. It focuses on children's spontaneous art experiences as enhancers of creativity and self-esteem. (Fall Semester)

## **EDEC 245 - Early Childhood Developmental Themes**

Credit(s): 3

This course will explore themes in early childhood; attachment, separation, autonomy, accomplishment and failure provide a foundation in which individual developmental needs of children can be assessed by parents and teachers. Early childhood themes will be looked at in the context of the dominant culture child, the bi-cultural child and the child with disabilities. Students will be introduced to the techniques of observing, recording, and interpreting the behavior of children. Students will examine research, theories, issues and stages in a social/political context. Students will learn the importance of parents as children's first and most important teachers. (Fall Semester)

## **EDEC 249 - Infant/Toddler Development and Group Care**

Credit(s): 4

This course provides students with the developmental foundation including theories, issues, research and their application in program planning for infants and toddlers. Students will be required to observe and document infants and toddlers in group settings. Students will plan inclusive environments for infants and toddlers. Students will learn about the importance of understanding families in a cultural context. (Fall Semester)

## **EDEC 250 - Math and Science Curriculum for Early Childhood**

Credit(s): 2

*Prerequisite(s):* EDEC 108, EDEC 245, EDEC 281, or instructor's consent.

This course will focus on developmentally appropriate activities that construct scientific and mathematical knowledge in meaningful and long lasting ways for children using their spontaneous ideas and creativity. (Spring Semester)

## **EDEC 252 - Music and Movement for Young Children**

Credit(s): 2

*Prerequisite(s):* EDEC 108, EDEC 245, EDEC 281, or instructor's consent.

This course is designed to increase the understanding of children's rhythmic movement capabilities and the interaction of play in the development of cognitive, social, emotional and physical domains. Emphasis is on how teachers can use movement as a way of learning for young children. (Spring Semester)

**EDEC 260 - Administration of Early Childhood Programs**

Credit(s): 3

*Prerequisite(s):* EDEC 108, EDEC 230, EDEC 245, EDEC 295 Early Childhood Fieldwork/Practicum I, or instructor's consent. The student will learn the principles and practices of administration and supervision of programs for young children. Areas covered include types of schools, maintenance and operation of the physical plant, regulatory agencies and legal requirements, personnel policies and practices, records, accounting, and communication procedure. (Spring Semester)

**EDEC 281 - Early Childhood Curriculum Design and Implementation I**

Credit(s): 3

*Prerequisite(s):* EDEC 108, EDEC 245, or instructor's consent. The student will learn and explore methods and materials for planning and implementing an integrated program for young children, including methods of planning developmentally appropriate activities to enhance children's development. Emphasis is on designing an environment for learning related to curriculum goals. (Spring Semester)

**EDEC 295 - Early Childhood Fieldwork/Practicum I**

Credit(s): 3

*Prerequisite(s):* EDEC 108, EDEC 245, or instructor's consent. This course provides close supervision at approved, quality early childhood education sites. Students will apply child development, curriculum and guidance knowledge while implementing and evaluating learning experiences in all areas of learning. Conducting group times, handling routines of the classroom and responding to the individual and group needs will be required. (Spring Semester)

**EDEC 295 - Early Childhood Fieldwork/Practicum II**

Credit(s): 3

*Prerequisite(s):* EDEC 108, EDEC 230, EDEC 245, EDEC 281, EDEC 295 Early Childhood Fieldwork/Practicum I, or instructor's consent. This course provides close supervision at approved, quality early childhood education sites. Students will apply child development, curriculum and guidance knowledge while implementing and evaluating learning experiences in all areas of learning. Students will work closely with families. Students will observe, assess and plan programs for individual children. (Spring Semester)

**Special Education (EDSP)****EDSP 204 - Introduction to Teaching Exceptional Learners**

Credit(s): 3

This course provides an overview of the characteristics and educational needs of exceptional children and youth including definitions, etiologies, assessment/eligibility, and interventions. Federal and state requirements for the education of individuals with disabilities as well as relevant case law regarding the provision of appropriate educational services for exceptional students in public schools will be examined. (Fall Semester)

**EDSP 244 - Fundamentals of Learning Disabilities**

Credit(s): 3

*Prerequisite(s):* EDU 201 or instructor's consent. Examination of the characteristics (academic and behavioral), identification, diagnosis, and educational placement for the learning disabled child (K-12) will be investigated. Educational opportunities, current controversies and emerging trends will be presented. (Fall Semester)

**Education (EDU)****EDU 201 - Introduction to Education with Field Experience**

Credit(s): 3

An introduction to public education and its place in society. This course is a preview of the teaching profession, preparation, rewards, development, structure, support and control of schools in America. Numerous educational topics will be introduced including Effective Schools Research, A Nation at Risk, America 2000, philosophies of education, career goals, and Gallup Poll results. Forty-five hours of classroom observation are required. (Fall and Spring Semesters)

**EDU 221 - Educational Psychology and Measurement**

Credit(s): 3

*Prerequisite(s):* EDU 201, PSYX 100A. This course focuses on learning as a basis of instruction and classroom management. Analysis of fundamental psychological concepts underlying classroom teaching and management, learning and evaluation, including educational measurement are covered. Emphasis is on the cognitive, developmental and motivational aspects of learning. (Spring Semester of Odd Years)

**EDU 222 - Educational Psychology and Child Development**

Credit(s): 3

This course will examine the classroom practices that impact elementary aged children's learning motivation and development within an educational, familial and societal context. Topics included will be developmental growth of children, including physical, cognitive and psychosocial. (Spring Semester)

**EDU 231 - Literature and Literacy for Children**

Credit(s): 3

This course consists of a survey of children's books with an emphasis on their use in the K-8 classroom. The history and current genres of children's literature will also be covered. Students will become aware of selection criteria, award-winning books, and strategies for sharing books with students. (Spring Semester)



## Course Descriptions

2015-2016

### **EDU 242 - Introduction to Gifted Education**

Credit(s): 2

This course is designed for prospective teachers who require current research, trends, and practices within the field of education of the gifted and talented. Gifted and talented students have special needs that require instructional and curricular modifications commensurate to their abilities. This course provides the students with an overview of giftedness as it relates to young people and provides an introduction to virtually all aspects of program planning and development. The course will also explore special identification and programming needs for the culturally different, economically disadvantaged, handicapped, and underachieving gifted student. (Spring Semester)

### **EDU 270 - Instructional Technology**

Credit(s): 3

The purpose of this course is to teach pre-service educators how to use and manage technology in educational settings and communicate methods and reasons for using technology. This course focuses on the computer and its educational applications for pre-service teachers. An emphasis is placed on integrating computer tools into class instruction. (Fall and Spring Semesters)

### **EDU 297 - Methods: K-8 Art**

Credit(s): 3

This course is designed to provide the student with an introduction to theory and methods used in elementary art instruction. (Fall Semester)

### **EDU 297 - Methods: K-8 Music**

Credit(s): 3

This course is designed for elementary education students only. The course will acquaint (or reacquaint) students with music fundamentals, music theory, and methods for teaching or supervising music in the elementary classroom. (Spring Semester)

## **Engineering: Electrical (EELE)**

### **EELE 101 - Introduction to Electrical Fundamentals**

Credit(s): 2

*Corequisite(s):* M 152M.

This is an introductory course, in a lecture plus lab format, in electrical fundamentals including Kirchhoff's Laws, power and energy in resistive circuits, use of meters and oscilloscopes, time-varying signals in electric circuits, inductors and capacitors, series and parallel resonance circuits, and digital circuits. The primary objective of this course is to introduce students, in a hands-on setting, to the proper use of basic electrical instruments, including multi-meters, DC power supplies, function generators, and oscilloscopes in the measurement, testing, construction, and analysis of basic electrical and electronic components, circuits, and devices. (Spring Semester)

### **EELE 201 - Circuits I for Engineering**

Credit(s): 4

*Prerequisite(s):* EELE 101, M 172M, PHSX 222NL\*

An introductory course which covers Ohm's Law, Kirchhoff's Laws, nodal and mesh analysis method, network theorems, capacitors, inductors, RC-RL response, complex frequency, phasors, steady state AC circuits, and three phase circuits. (Intermittently)

## **Engineering: General (EGEN)**

### **EGEN 102 - Introduction to Engineering Computer Applications**

Credit(s): 2

*Prerequisite(s):* M 171M.

This course introduces engineering students to some of the computer tools that they can use in analyzing problems that arise in the various fields of engineering. Excel spreadsheets help engineers solve their problems quickly and easily. MathCAD and MATLAB are mathematics software that incorporate numeric computation, symbolic computation and scientific visualization. (Fall Semester)

### **EGEN 105 - Introduction to General Engineering**

Credit(s): 1

Topics in engineering including its practice, communications, ethics, education, history, disasters, mechanics, electricity and computers. (Fall Semester)

### **EGEN 115 - Engineering Graphics**

Credit(s): 3

Introductory course developing freehand sketching and computer-aided modeling techniques for engineering design graphics. Skills will be developed for sketching and interpreting dimensioned multi-view drawing, pictorials, sections, tolerancing and assemblies for mechanical designs. (Spring Semester)

### **EGEN 201 - Engineering Mechanics: Statics**

Credit(s): 4

*Prerequisite(s):* M 172M, PHSX 220NL

Vector treatment of static mechanics in two and three dimensions; discrete and distributed force systems; analysis of trusses, beams and cables; coulomb friction on surfaces, screws and belts; the distributive properties of areas and volumes; and the methods of virtual work and stationary potential energy. (Fall Semester)

### **EGEN 202 - Engineering Mechanics: Dynamics**

Credit(s): 4

*Prerequisite(s):* EGEN 201.

For particles: kinematics and kinetics, energy and momentum methods. For rigid bodies: relative motion, plane motion, energy and impulse-momentum methods, dynamics of general motion, vibrations. (Spring Semester)

## 2015-2016

## Course Descriptions

### **EGEN 205 - Mechanics of Materials**

Credit(s): 4

*Prerequisite(s):* EGEN 201.

The principles of engineering mechanics applied to deformable bodies including: stress, strain, Hooke's Law, thermal stress, torsion, combined stresses, stress transformations, deflection of beams, columns. (Spring Semester)

### **Electrical Technology (ELCT)**

#### **ELCT 100 - Introduction to Electricity**

Credit(s): 3

This is an introductory class in electrical fundamentals. A practical approach will be used for the study of electricity including Ohm's Law; power; series and parallel circuits; direct and alternating current. A strong emphasis will be placed on diagrams and troubleshooting. (Fall Semester)

#### **ELCT 102 - Electrical Fundamentals II**

Credit(s): 4

*Prerequisite(s):* ELCT 110.

*Corequisite(s):* BMGT 205C, M 114

This course will introduce the student to alternating current. The electrical properties and their effects on the circuit will be examined. Basic trigonometric skills will be utilized to perform calculations for analyzing various electrical circuits. (Spring Semester)

#### **ELCT 103 - Electrical Code Study/Codeology**

Credit(s): 3

*Prerequisite(s):* ELCT 139

*Corequisite(s):* BMGT 205C, M 111.

This course is a study of the National Electrical Code. Wiring design and protection, wiring methods and materials, and equipment for general use are covered. (Fall and Spring Semesters)

#### **ELCT 105 - Electrical Circuitry**

Credit(s): 2

This is an introductory electrical course in alternating and direct current that emphasizes practical applications. Topics covered are Ohm's and Kirchoff's laws, series and parallel circuits, and wiring diagrams. In addition, wire sizes and proper installation of trailer, ornamental, and outdoor lighting circuits are covered. (Spring Semester)

#### **ELCT 110 - Basic Electricity I**

Credit(s): 5

*Prerequisite(s):* ELCT 100 or instructor's consent.

This course will introduce the student to the various electrical properties and the equipment which produces those properties. Basic circuitry will be examined, utilizing algebraic skills to perform the calculations. (Fall Semester)

### **ELCT 111 - Electric Meters and Motors**

Credit(s): 3

This course is a practical hands-on course using ammeters, voltmeters, watt meters, and multimeters in testing and troubleshooting electric motors, components and wiring systems. The course also includes a study of single and three-phase AC motors, their construction features and operating characteristics. This lecture/laboratory class emphasizes electric motor terminology, identification of motor types, enclosures, mounts, motor selection, connections, maintenance, testing and troubleshooting. Students are also introduced to motor loads, protection, controls, and devices used to connect motors to their loads such as pulleys, V-belts, gear boxes and couplings. (Spring Semester)

#### **ELCT 133 - Basic Wiring**

Credit(s): 4

*Corequisite(s):* ELCT 110.

This course provides an introduction to basic circuits, materials and tools used, and wiring methods. Students will also perform laboratory work with actual circuit layout and installation in accordance with the National Electrical Code. This course primarily deals with residential wiring methods. (Fall Semester)

#### **ELCT 137 - Electrical Drafting**

Credit(s): 2

This course will have students develop techniques of communicating through the use of mechanical drawings; electrical drawings; heating, ventilation and air conditioning drawings. Basic blueprint reading and sketching are included as well as an introduction to CAD. (Fall Semester)

#### **ELCT 139 - Electric Code Study - Residential**

Credit(s): 3

*Prerequisite(s):* ELCT 133.

This course is an introductory study of National Electrical Code requirements for residential wiring, including protective ground circuits, service entry and electrical safety requirements for routine residential electrical installations. (Spring Semester)

#### **ELCT 204 - Electrical Planning and Estimating**

Credit(s): 3

*Prerequisite(s):* ELCT 103 or instructor's consent.

This course is an applied course in the planning and cost estimation of electrical installations and rehabs for both commercial and residential applications. The course will use current catalog and electrical supply information to determine rough cost estimates based on blueprint or electrical drawings, as well as using customer requirements to determine the plan and cost estimates for new and old work. (Fall Semester)



# Course Descriptions

2015-2016

## **ELCT 205 - Electrical Design and Lighting**

Credit(s): 3

This is a class discussion course dealing with electrical material and equipment sizing, layout and application, applicable wiring codes, regulations and rules and characteristics of common electrical distribution systems as used in industrial plants and commercial building locations. Included is a study of short-circuit current, current limiting and coordination, power factor correction and electrical rates. This course includes the study of modern illumination principles, calculation procedures and equipment for lighting installations. Also included are discussions of building construction, heat loss calculations and electric heating equipment selection. (Fall Semester)

## **ELCT 210 - Advanced Current Theory**

Credit(s): 5

*Prerequisite(s):* ELCT 102.

This course is a study of three-phase alternating current circuits and single and three-phase transformers and machines. The theory and operation of three-phase wye and delta circuits and the relationship of voltage, current and power in these circuits. The use of phasor algebra in the solution of alternating current problems is stressed as are the characteristics and use of electrical instruments such as voltmeters, ammeters, ohmmeters, and watt meters. Students learn the theory and operation of transformers with single and three-phase connections and are introduced to alternating current machines. (Fall Semester)

## **ELCT 211 - AC Measurements**

Credit(s): 3

*Prerequisite(s):* ELCT 102.

This lecture/lab course consists of a series of experiments to investigate the characteristics of single-phase and three-phase electrical circuits. The connections and testing of transformers in both single-phase and three-phase configurations are stressed. Students also learn the operation of three-phase motors from conventional sources and phase converters with an emphasis on efficiency, operating characteristics and connections. (Spring Semester)

## **ELCT 233 - Commercial Wiring Lab**

Credit(s): 3

*Prerequisite(s):* ELCT 133.

*Corequisite(s):* ELCT 236.

This course is an extension of ELCT 133 with lectures emphasizing commercial wiring methods. Students will perform laboratory work consisting of actual installation of various raceways, as well as connecting of special equipment used in commercial and industrial applications, all in accordance with the National Electrical Code. (Spring Semester)

## **ELCT 236 - Conduit, Raceways, and Code Calculations Lab**

Credit(s): 3

*Prerequisite(s):* ELCT 133.

*Corequisite(s):* ELCT 233.

This course includes laboratory work with Code application relating to conduit bending, as well as National Electrical Code calculations for wire and cable installation. Students will perform lab work consisting of actual installation of conduit, wire and cable. (Spring Semester)

## **ELCT 239 - Grounding and Bonding Fundamentals**

Credit(s): 3

This course is a combination lecture/lab series of grounding theory, as well as characteristics of grounded and non-grounded systems. Labs include proper grounding practices, various grounding applications, tools and materials usage and methods of compressions and exothermic application and installations. (Spring Semester)

## **ELCT 241 - Electric Motor Controls**

Credit(s): 3

This course is a lecture/lab course oriented to the study of electromechanical control system concepts. Experiments are designed to illustrate the principles, applications, connection and installation procedures of electrical controllers. Special emphasis is placed on the analysis and development of control circuits. (Spring Semester)

## **ELCT 247 - Medium and High Voltage**

Credit(s): 3

This course is a lecture/lab course which covers medium and high voltage electrical theory, conductors, insulators, overcurrent devices, testing, termination, safety precautions and safety equipment. (Spring Semester)

## **ELCT 250 - Programmable Logic Controllers**

Credit(s): 4

This course is an introduction to the concepts involved with programmable logic controllers (PLCs). The applications, operations, and programming of PLCs will be covered with an emphasis on programming. (Spring Semester)

## **ELCT 251 - Introduction to Photovoltaic Systems**

Credit(s): 5

*Prerequisite(s):* ELCT 100.

This course is designed to introduce students to the new career opportunities in the exploding "green" market of photovoltaic systems. The curriculum facilitates successful learning through a combination of lecture, labs, and hands-on construction, installation and control of a working photovoltaic system. In addition, the economics and viability of photovoltaic as compared to other energy systems will be studied. This course can be repeated one time only with instructor's approval for students seeking a grade improvement. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

## **ELCT 252 - Fundamentals of Grid Tied Photovoltaic Systems**

Credit(s): 5

*Prerequisite(s):* ELCT 102, ELCT 251.

This is a lecture/lab course designed to build a firm foundation of basic principles and technologies of solar photovoltaic energy systems. Emphasis is placed on system design and installation, including site and resource assessment, load analysis, and cost analysis. (Fall and Spring Semesters)

**Emergency Management (EM)****EM 100 - Principles of Risk Assessment and Management**

Credit(s): 3

In this course, students are provided a practical approach to business continuity in the face of an internal or external threat. The course explores the principles of risk assessment and management as applied to public and private entities to ensure continuous operations. An overview of the characteristics, functions and resources of an integrated risk assessment and management system is covered. Areas of study include understanding and mitigating risk; planning and preparation; reaction and response; and recover and return to normal operations. (Fall Semester)

**EM 110 - Disaster Response and Recovery**

Credit(s): 3

In this course, students learn how to specifically prepare for, respond to and recover from specific incidents spanning unauthorized network intrusions to internal physical threats and external disasters (natural, technological and human-caused). Emphasis is placed on rapid situation assessment, identification of key safety concerns, special population needs, systems functionality, debris removal and disposal, obtaining outside help, and continuity of operations. Techniques focused on helping front line management and supervisors, as well as employees to understand, value and implement disaster response plans will be covered. Topics also include how to manage donations and spontaneous volunteers and the partnership with local government in disaster response and recovery. (Fall Semester)

**EM 120 - Mitigation Planning**

Credit(s): 3

In this course, students learn how to identify, monitor and respond to hazardous conditions. These conditions may originate as natural or human-caused events. The students will cover the complete process from building the local mitigation team through conducting hazard analysis, and developing local mitigation goals and measures. The course is intended to educate those tasked with emergency management responsibilities on their roles in mitigation planning from a business and community response perspective. (Spring Semester)

**EM 130 - Emergency Operations Center (EOC) Management and Operations**

Credit(s): 3

This course is an overview of incident command, its role in disaster management, and how incident command and the emergency operations center interface to manage a disaster. Students will understand and be able to manage resources and personnel for level 3 and level 4 incidents. (Spring Semester)

**EM 140 - Public Communication During Emergencies**

Credit(s): 3

In this course, the student focuses on the unique and essential communication requirements in times of emergency and/or disaster response. Whether a formal role, or one incorporated into other duties, all organizations need to identify and prepare a spokesperson to deal with the many communications issues during crisis. Students build skills in the areas of oral and written communication, understanding the media and building value in relationships with media, social media management and the basic tools and techniques for effective communications both internally and externally to promote understanding and "calm" in the face of extreme situations. An overall organizational communication plan for responding to outside inquiries is also reviewed. (Spring Semester)

**EM 200 - Responding to Terrorism**

Credit(s): 3

This course covers terrorists activities aimed at achieving radical changes around the world with violence. Topics include the identifications of terrorist groups who are willing to kill innocent people by the use of explosives, weapons, and other violent means; and the action by governments to counter terrorism. Upon completion, the student will have a good understanding of terrorism around the world today. (Fall Semester)

**EM 210 - Exercise Design**

Credit(s): 3

This course is designed to introduce students to the fundamentals of emergency management exercise design, management and evaluation. Students will design an exercise, identify the logistics necessary for execution and management of the exercise, and develop an exercise evaluation plan. Students will also be introduced to the concept of comprehensive exercise programs that are used to improve on the four phases of emergency management. Course instruction follows and meets guidelines established by FEMA and DHS. (Fall Semester)

**EM 220 - Management of Volunteers**

Credit(s): 3

This course offers training in identification of volunteer resources, as well as recruiting, assigning, training, supervising, evaluating and motivating volunteers. Also addressed will be coordination with volunteer agencies, Voluntary Organizations Active in Disaster (VOAD), and community based organizations such as church groups, food banks, professional organizations, and also includes business and industry. Special issues such as spontaneous volunteers, stress management, and legal issues of volunteers will be covered. (Spring Semester)

**EM 230 - Emergency Management Law and Ethics**

Credit(s): 3

This course is an overview of the most important federal and state legislation that affects emergency management in various types of disasters. Upon completion, the student will have a good understanding of the laws that affect emergency managers, and also understand ethical dilemmas in emergency management. (Spring Semester)

## Course Descriptions

2015-2016

### **EM 240 - Mass Fatalities Incident Response**

Credit(s): 3

This course addresses the essential elements of planning for, responding to, and recovering from a mass fatality incident. Students will be able to identify the roles and responsibilities of local, state, and federal officials, as well as public service, private sector and volunteer organizations. (Spring Semester)

### **EM 250 - Emergency Management Capstone Project**

Credit(s): 4

This project is an integrative project combined with an evaluation exercise designed by the student with the assistance of the faculty advisor. This is a capstone course which will provide the student with a thorough review of all theories, techniques, and management practices in the field of emergency management. The student will develop or update an emergency action plan for an organization within their community, along with development of an exercise to test the emergency response plan. (Spring Semester)

## **Environmental Sciences (ENSC)**

### **ENSC 105NL - Environmental Science**

Credit(s): 4

Provides an overview of environmental science including: science, public policy and economics, ecosystems and ecological responses, and managing biological and physical resources (water, soil, forests, rangelands, air wildlife, minerals, etc.). Upon completion of this course, a student should have a strong foundation to make sound environmental decisions. Includes lab and a service component. (Spring Semester)

### **ENSC 195 - Field Experience**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Work, either paid or volunteer, involving supervised field and laboratory experiences in public or private agencies under the supervision of a full-time faculty member. Training involves the application of scientific principles in the work environment. Students must submit a proposal which must be approved by the supervising instructor, the supervisor from the outside agency, and the Division Chairperson. (Intermittently)

### **ENSC 245NL - Soils**

Credit(s): 4

This course is an introduction to chemical, physical, and biological properties of soil and soil's relationship to other natural resources. Interactions will be emphasized between soils and the larger forest, range, agricultural, wetland, and other freshwater ecosystems. (Spring Semester)

### **ENSC 272 - Water Resources**

Credit(s): 4

This course is an introduction to the physical, chemical, and biological properties of water and water's relationship to other natural resources within an ecosystem context. Issues of water quality and quantity will be examined as they relate to human use and other natural resources. (Spring Semester)

### **ENSC 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s):* instructor's consent.

Undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

## **Environmental Studies (ENST)**

### **ENST 285 - Environmental Policy and Impact Analysis**

Credit(s): 3

This course is designed to impart an understanding of the Environmental Impact Assessment (EIA) process to those interested in land management. (Fall Semester)

## **Heavy Equipment Operator (EQOP)**

### **EQOP 100 - Commercial Truck Driver**

Credit(s): 3

Commercial Truck Driving will assist students in gaining a working knowledge of information needed to obtain a Class "A" CDL learner's permit through classroom instruction. The class also includes simulator and backing practice, shop time, and the driving experience necessary to pass the pre-trip, skills, and driving exam for the Montana Class "A" CDL. The lab exercises are designed to provide students with the driving skills in a working environment. Loading and dumping trucks, load procedures and practices, and transport of heavy equipment are emphasized in preparation for an entry level job in "truck driving." (Intermittently)

### **EQOP 101 - Commercial Driver's License (Bus)**

Credit(s): 3

*Prerequisite(s):* Montana State Driver's License.

This course will assist students to gain the knowledge and information needed to obtain a Class "B" CDL learner's permit through classroom instruction. The course also includes vehicle safety inspections, backing techniques, and the driving experience necessary to pass the pre-trip, skills, and driving exam for the Montana Class "B" CDL with passenger and school bus endorsements. The lab exercises are designed to provide students with driving skills in a working environment including town, open road, and mountain driving. First Aid, CPR, and handicap lift operations are embedded in the curriculum. (Intermittently)

### **EQOP 102 - Commercial Truck Driver B to A Transition**

Credit(s): 2

This course will assist students in gaining a working knowledge needed to extend Class "B" skills to Class "A" CDL learner's permit through classroom instruction. This course also includes pre-trip, backing practice, and the driving experience necessary to pass the pre-trip, skills, and driving exam for the Montana Class "A" CDL. The lab exercises are designed to provide students who possess the basic Class "B" license and driving skills with the additional driving skills required for a Class "A" combination vehicle/trailer. (All Semesters)

## 2015-2016

## Course Descriptions

### **EQOP 103 - Professional Truck Driver**

Credit(s): 3

*Prerequisite(s):* EQOP 100 or instructor's consent.

This course will introduce the student to the skills necessary to be proficient in night operations, extreme driving conditions, hazard perception, emergency maneuvers, and skid control. It will also introduce the student to handling and documenting cargo, environmental issues, accident procedures, trip planning, and interpersonal communication. (All Semesters)

### **EQOP 105 - Introduction to Heavy Equipment Operator**

Credit(s): 10

This course will prepare students for the Montana Commercial Driver's License written exam and provide the 40 hours of heavy truck/trailer driving experience required in preparation for the CDL road test. In addition, the student will develop proficiency in equipment work site safety, grade stake interpretation, and soil composition and characteristics. The operation of dump trucks, tractors, skidsteers, bulldozers, and front-end loaders to the National Center for Construction Operating Engineers (NCCOE) Level III proficiencies will be presented and tested. (Fall Semester)

### **EQOP 110 - Heavy Equipment Operator II**

Credit(s): 10

*Prerequisite(s):* EQOP 105.

This course is a continuation of EQOP 105 designed to develop student proficiencies in equipment operational safety, soil stabilization and good grade determinations. The operation of backhoes, motor graders, excavators, and telescoping excavators to the National Center for Construction Operating Engineers Level III proficiency will be presented and tested. (Spring Semester)

### **EQOP 215 - Heavy Equipment Operator Internship**

Credit(s): 10

*Prerequisite(s):* EQOP 105, EQOP 110.

This course requires 400 hours of job site experience for the student employed as an intern equipment operator with a local business. (Summer Semester)

## **Electronics Technology (ETEC)**

### **ETEC 130 - Panel Wiring and Soldering**

Credit(s): 2

This course will introduce the student to the physical assembly and wiring of electrical/industrial control panels. The course will teach the fundamentals of torque and soldered connections for compliant installation of wires, cables, and components. The basics of electrical schematics and wiring diagrams will be taught in relation to wiring control panels. (Spring Semester)

### **ETEC 245 - Digital Electronics**

Credit(s): 4

*Prerequisite(s):* ELCT 110.

This course explores digital electronic circuits and devices that make up a computer system. Topics include binary and hexadecimal number systems, Boolean algebra and digital logic theory, simple logic circuits, combinatorial logic, and sequential logic. Analog-to-digital and digital-to-analog interfaces are covered. Includes lab exercises. (Spring Semester)

### **ETEC 250 - Solid State Electronics I**

Credit(s): 4

*Prerequisite(s):* ELCT 110.

This is an introduction to semiconductor technologies used in solid state electronics with an emphasis on diodes and transistors. Lab exercises reinforce and illustrate lecture topics. (Spring Semester)

### **ETEC 280 - Advanced Electronics**

Credit(s): 4

*Prerequisite(s):* ETEC 245, ETEC 250.

This course will involve the study of how various industrial processes are coalesced using advanced PLC techniques. The course will illustrate the use of electrical, electronic solid state, digital, and pneumatic transmitters in practical process control instrumentation. There will be an emphasis on application of principles. (Fall Semester)

### **ETEC 285 - Advanced Programmable Controllers**

Credit(s): 4

*Prerequisite(s):* ELCT 250.

This is an advanced course in programmable controllers that emphasizes programming circuits using relay type instructions, timers, counters, data manipulation, arithmetic functions, and other advanced techniques. (Spring Semester)

### **ETEC 299 - Capstone: Electronics**

Credit(s): 3

*Prerequisite(s):* Enrollment in the Electronics Technician Tier IV program.

This course provides opportunities for the student to arrange to complete special projects using knowledge gained in previous coursework. All projects must be approved by the instructor. (Fall Semester)

## **Film (FILM)**

### **FILM 105 - Motion Picture Appreciation**

Credit(s): 1

A mini-course designed to develop informed, critical understanding within students. Examines the language and historical impact of the motion picture industry from the silent era to contemporary filmmaking. Course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

# Course Descriptions

2015-2016

## **FILM 111F - Basic Videomaking**

Credit(s): 3

*Prerequisite(s):* instructor's consent.

Basic videography teaches basic methodology of videomaking. Students will use tools and techniques of sound and motion to produce short videos for professional and personal growth in the medium. (Intermittently)

## **Forestry (FORS)**

### **FORS 120 - Forestry Navigation**

Credit(s): 2

An introduction to basic forestry navigation techniques. Exercises include basic compass skills, understanding the historical development of maps, reading and using topographic maps, understanding the U.S. public land survey system (PLSS), and an introduction to Global Positioning System. Emphasis will be placed on forestry field measurements and data collection. (Fall Semester)

### **FORS 152 - Sustainable Silviculture**

Credit(s): 4

An introductory course in silvicultural practices aimed at management of land to a desired forested condition and the land's sustainable use in concert with other resources. (Spring Semester)

### **FORS 153 - Forest Resource Calculations**

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "SA" in M 061~, a grade of "C-" or better in M 065~, or instructor's consent.

This course involves resource data manipulation for planning and analysis with a concentration on typical natural resource problems encountered in the daily work routine. (Fall Semester)

### **FORS 230 - Forest Fire Management**

Credit(s): 3

This course covers forest fire prevention, pre-suppression, suppression, and the uses of fire in land management practices both historically and present day. Emphasis will be on fire behavior, fire weather, the national fire danger rating system, fuels loading, and fire control organization. (Spring Semester)

### **FORS 232 - Forest Insects and Diseases**

Credit(s): 3

*Prerequisite(s):* NRSM 161.

Identification, significance of, and remedies for insect infestations and infectious and non-infectious diseases of forests and forest products. (Spring Semester)

### **FORS 251 - Photogrammetry and Remote Sensing**

Credit(s): 3

*Prerequisite(s):* SRVY 233 or SRVY 283.

The theory and application of photo and electro-optical remote sensing for mapping resources and developing information systems. (Spring Semester)

## **FORS 272 - Inventory of Natural Resources**

Credit(s): 4

*Prerequisite(s):* NRSM 161.

This course is an extension of knowledge gained in NRSM 161 in which resources are inventoried and sampled in support of forest land management decisions (Fall Semester)

## **FORS 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s):* instructor's consent.

Undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid office before repeating this course. (Intermittently)

## **FORS 295 - Field Experience: Logging Resources**

Credit(s): 2

*Corequisite(s):* ACT 283.

Attendance at the annual Western Forestry Clubs Conclave held at various locations throughout the West. Educational tours focus on forest management techniques used by managers to solve local problems. (Spring Semester)

## **Languages: French (FRCH)**

### **FRCH 101GH - Elementary French I**

Credit(s): 5

This course is a study of the French language with attention to pronunciation, conversation, grammar, and reading. (Intermittently)

### **FRCH 102GH - Elementary French II**

Credit(s): 5

*Prerequisite(s):* FRCH 101GH or instructor's consent.

This course is a study of the French language with attention to pronunciation, conversation, grammar and reading. (Intermittently)

## **Firearms Technologies (FT)**

### **FT 100 - Introduction to Firearms**

Credit(s): 1

*Prerequisite(s):* acceptance into the Firearms Technologies program.

This course provides the orientation to the Firearms Technologies program. The course encompasses firearms safety, which is critical anytime firearms are assembled, repaired, or manufactured, with a focus on shop practices for the gun shop or manufacturing environment. The course also emphasizes nomenclature and terminology to ensure clear communication in the workplace. (Intermittently)



## 2015-2016

## Course Descriptions

### **FT 111 - Firearms Theory I**

Credit(s): 3

*Prerequisite(s):* acceptance into the Firearms Technologies program.

This course encompasses ballistics, headspace, triggers, safeties, and cycle of operations basic to all firearms. The course will cover design, function, assembly, and disassembly of firearms. The types of firearms studied are single action revolvers, double action pistols, lever action rifles and bolt action rifles. Some history of firearms and ammunition will be presented in order to enhance the learner's understanding of firearms function and use. (Intermittently)

### **FT 112 - Firearms Theory II**

Credit(s): 3

*Prerequisite(s):* FT 111 and acceptance into the Firearms Technologies program.

This course will focus on the various systems used to operate pump and semi-automatic firearms. Systems include internal gas operated, external gas operated, short and long recoil operated, blowback and delayed blowback. The firearms used will be shotguns, rifles, and pistols. Ballistic software will be introduced and utilized as a tool for the gunsmith to study and compare cartridges and exterior ballistics. (Intermittently)

### **FT 120 - Bench Metal Techniques**

Credit(s): 3

*Prerequisite(s):* acceptance into the Firearms Technologies program.

This course focuses on proper care and use of basic hand tools common to the firearms manufacture and repair business. The course emphasizes hand work and safety. Areas of concentration include proper use of measuring tools, files, hammers, drills, saws, as well as layout, soft soldering, silver brazing, heat treating, and hand polishing. The student will fabricate tools and/or parts from plans or exemplars in order to become skilled in the use of tools and best practices. (Intermittently)

### **FT 125 - Machine Tools for the Gunsmith**

Credit(s): 4

*Prerequisite(s):* acceptance into the Firearms Technologies program.

This course covers the theory and practice of using machine tools for basic barrel fitting techniques. Techniques include truing the action, lapping lugs, fitting the barrel for best accuracy, chambering, headspacing, and installing sights and scope mounts. Projects include fabricating jigs and fixtures that are required to perform improvements to accuracy of bolt action rifles. There will also be discussions of safety that are pertinent when barreling any firearm. (Intermittently)

### **FT 131 - Firearms Repair I**

Credit(s): 3

*Prerequisite(s):* acceptance into the Firearms Technologies program.

This course explores firearms repair theory and practice. Topics include necessary tools, design, function, disassembly, troubleshooting, assembly, and repair of selected handguns, shotguns, and rifles. The emphasis is on understanding the systems utilized in each firearm, such as gas operated vs. blowback designs. (Intermittently)

### **FT 132 - Firearms Repair II**

Credit(s): 3

*Prerequisite(s):* FT 131 and acceptance into the Firearms Technologies program.

This course is an extension of FT 131. Although the topics are similar, the student is exposed to more complex repairs. Fitting and adjusting of parts, with an emphasis on factory methods and techniques, are covered. (Intermittently)

### **FT 140 - Precision Rifle Building**

Credit(s): 3

*Prerequisite(s):* acceptance into the Firearms Technologies program.

This course is a study of the theory and concepts of advanced accuracy procedures. The focus is the diagnosis of accuracy problems and optimization of the firearm for best accuracy. There will be a variety of procedures and modifications studied, ranging from stock bedding to machining actions. Examples of topics are machining techniques, sighting systems, trigger systems, ammunition quality, and shooting techniques. (Intermittently)

## **Graphic Design (GDSN)**

### **GDSN 130 - Typography**

Credit(s): 3

*Prerequisite or Corequisite:* GDSN 148 or GDSN 200.

Because the eye is trained to appreciate the sensibilities and subtleties of typographic conventions such as kerning, leading, style, and practice, in this course students will gain an understanding of the vocabulary surrounding letter forms and the design of text. Symbolic communication inherent in different typefaces will also be explored. Typographic relationships with other graphic elements will be investigated through brochures, posters and other two-dimensional projects. (Fall Semester)

### **GDSN 148 - Digital Illustration I**

Credit(s): 3

This is a beginning course in the use of Adobe Illustrator where students will develop vector-drawing abilities through a variety of skill-based assignments, with an emphasis on concept, creativity, technical achievement and presentation. In addition, students learn file preparation standards for production, including file formats, color palettes and image resolution. The most recent version of Illustrator is highly recommended. (Fall Semester)

## **GDSN 149 - Digital Imaging I**

Credit(s): 3

This is a beginning course in the use of Adobe Photoshop. This class will introduce the concepts of basic digital image manipulation techniques. This includes cropping images, selecting details, creating new layers, adjusting color balance/contrast, adding type, web optimization, resampling/resizing of images, and using alpha channels. More intermediate topics such as layer mask selection, clipping masks, layer adjustments, filters, and image slicing will be introduced. The most recent version of Photoshop is highly recommended. (Fall Semester)

## **GDSN 200 - Introduction to Desktop Publishing**

Credit(s): 3

*Prerequisite(s):* GDSN 148 and GDSN 149.

This is a fast-paced course in the use of Adobe InDesign. The concepts of integrating imagery and type as art, identity branding, and multi-page layouts will be covered extensively. Students must be proficient with Illustrator and Photoshop because this course combines photo, illustration, and typography to create cohesive layouts. Students will finish this class with the ability to create a small magazine from concept to creation to production. The most recent version of InDesign is highly recommended. (Fall and Spring Semesters)

## **GDSN 230 - Video Editing**

Credit(s): 4

This course integrates graphic design skills with video editing to create short promotional videos. Students explore basic working concepts of the art of video editing through the use of linear and non-linear video editing to tell a story from start to finish with a detailed plot arc. Topics include capturing digital video, organizing projects, storing video clips, explaining the browser, viewer, canvas, and timeline. Students learn advanced features such as special effects, camera angles, techniques for connecting shots, overlapping sound sequences, and text effects. (Spring Semester)

## **GDSN 247 - Digital Portfolio Preparation**

Credit(s): 4

*Prerequisite(s):* GDSN 250.

In this course, students develop a unique identity and branding to showcase examples of both graphic design and web technology pieces in preparation for the job market. A cohesive design will be displayed through a resume, business card, leave behind, print portfolio, and digital portfolio. This capstone course prepares Graphic Design and Web Technology students for the job market by teaching interviewing skills and independent contract techniques. (Spring Semester)

## **GDSN 248 - Digital Illustration II**

Credit(s): 3

*Prerequisite(s):* GDSN 148.

This is an advanced course in the use of Adobe Illustrator. The concepts of advanced digital illustration will be introduced and explored. This includes drawing in 3D, using perspective, streamlining color management, creating customized brushes, and using special effects. Also, a strong emphasis on typography as a design element will be applied. The most recent version of Illustrator is highly recommended. (Spring Semester)

## **GDSN 249 - Digital Imaging II**

Credit(s): 3

*Prerequisite(s):* GDSN 149.

This is an advanced course in the use of Adobe Photoshop. The concepts of advanced digital image manipulation techniques will be introduced and explored through Photoshop. This includes advanced techniques in retouching and enhancing techniques, creating special effects, and applying artistic type, textures and filters. The use of multiple layers with adjustments, blending modes, clipping masks, alpha channels, puppet warp, liquefy and other filters, will be thoroughly explored. The most recent version of Photoshop is highly recommended. (Spring Semester)

## **GDSN 250 - Graphic Design I**

Credit(s): 3

This course provides an introduction to the principles of Graphic Design that can be applied in photography, painting, and fine arts. The course covers the fundamentals of graphic design with an emphasis on creative problem solving. Students will learn composition, color theory, models and schemes, design components, typography and terminology, resolution, design basics to prepare for web, the marketing process including branding, standard business practices, contracts and ethical guidelines for the graphic arts industry. Students work on critical thinking skills by completing visual problem-solving exercises. This is an introductory course so assignments done on a computer will not be required. (Fall Semester)

## **GDSN 274 - Portfolio Presentation**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Exploration of techniques and formats used for the documentation and presentation of 2D and 3D artworks. Film, digital and Web-based technologies will be used. Students will learn how to create and present portfolios of artwork. (Spring Semester)

## 2015-2016

## Course Descriptions

### Geoscience: Geology (GEO)

#### **GEO 100NL - Introduction to Earth Science**

Credit(s): 4

A survey, non-sequence course designed for the non-science major. Subjects include origin and history of the earth and solar system; Earth materials (minerals and rocks), action of wind, water and ice on the Earth's surface; landforms and mountain-building processes; the physical ocean environment. Labs stress the application of lecture topics. (Fall and Spring Semesters)

#### **GEO 101NL - Introduction to Physical Geology**

Credit(s): 4

Basic concepts of earth materials and processes -minerals, sedimentary, igneous and metamorphic rocks, the rock cycle, weathering, erosion and development of landforms. Introduction to plate tectonics, volcanism, mountain building, continental structure, evolution and structural geology. Lab exercises to illustrate all aspects of lectures. (Spring Semester)

#### **GEO 130N - Geology of Northwest Montana**

Credit(s): 3

Lectures and field trips designed to acquaint the student with the geologic history, rock types, structural features, landforms, and natural resources of Northwest Montana. Field trips in the Flathead and Mission Valleys and Glacier Park. (Fall and Summer Semesters)

### Glacier Institute (GLAC)

#### **GLAC 191 - Special Topics**

Credit(s): 1-3

In partnership with FVCC, the Glacier Institute provides an array of field-based educational courses focused on the natural continent ecosystem. (Intermittently)

### Geoscience: Geography (GPHY)

#### **GPHY 111NL - Introduction to Physical Geography**

Credit(s): 4

This course introduces physical earth systems - meteorology, soils, vegetation types and distribution, oceanography, landforms. Focus is on the use of geographic tools and analysis to understand spatial relationships of physical and biological phenomena on Earth, and how these relationships affect humans. (Fall Semester)

#### **GPHY 121GA - Human Geography**

Credit(s): 3

A topical approach to geographic analysis of humans and their environment, this course includes population, migration, culture, development, industry, and urban patterns. It uses natural science concepts to understand human behavior. Focus is on key issues within a geographic framework, answering where and why. (Spring Semester)

#### **GPHY 141GA - Geography of World Regions**

Credit(s): 3

A survey of world geographical regions, including the unique physical environment, population and settlement patterns, cultural diversity, political systems and economic and social status. Focus is on globalization, its effect on the region's environment, politics and economics, and how the regions affect globalization trends. (Fall and Spring Semesters)

### Languages: German (GRMN)

#### **GRMN 101GH - Elementary German I**

Credit(s): 5

This course is a study of the German language with attention to pronunciation, conversation, grammar, and reading. (Intermittently)

#### **GRMN 102GH - Elementary German II**

Credit(s): 5

*Prerequisite(s):* GRMN 101GH.

This course is a study of the German language with attention to pronunciation, conversation, grammar, and reading. (Intermittently)

### Health Enhancement (HEE)

#### **HEE 202 - Instructional Strategies in Elementary Physical Education**

Credit(s): 3

*Prerequisite(s):* HEE 233.

This course is designed for elementary education students. It focuses on applying educational theory in planning, analyzing and presenting learning experiences to typical and atypical populations in elementary school physical education. Active participation is required. (Spring Semester)

#### **HEE 203 - Professional Activities I**

Credit(s): 2

This course focuses on the introduction of basic skills for teaching sports, such as techniques, drills and strategies. This course is well-suited for youth coaches, current high school coaches, education students, and anyone interested in entering the coaching field.

(Summer Semester)

#### **HEE 220 - Introduction to Physical Education**

Credit(s): 3

This is a survey class dealing with all the introductory aspects of physical education, philosophies, history, objectives, career opportunities, adapted programs, sociology, psychology, physiology of sport. (Fall Semester)

## Course Descriptions

2015-2016

### **HEE 233 - Health Issues of Children and Adolescents**

Credit(s): 3

This course focuses on the major health issues affecting school age children in the United States and the policies and programs aimed at improving the health of this population. Topics include the role of state and local boards in authorizing school health promotion, school health curriculum design, health lesson plans, and teaching methods appropriate for health concepts. (Fall Semester)

### **Honors (HONR)**

#### **HONR 251HA - Honors: Humanities/Social Sciences-A**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major theories of Social Sciences-A (Anthropology, Psychology, Sociology) coordinated and examined through works of literature. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

#### **HONR 252HM - Honors: Humanities/Mathematics**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes in the humanities coordinated and examined through mathematical concepts utilizing appropriate language and symbolism. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

#### **HONR 253HN - Honors: Humanities/Science**

Credit(s): 4

*Prerequisite(s):* acceptance into the Scholars Program.

Title will vary. This course involves critical analysis of major themes of the humanities coordinated and examined through one or more of the sciences. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

#### **HONR 254AM - Honors: Social Sciences-A/Mathematics**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of the Social Sciences-A (Anthropology, Psychology, Sociology) coordinated and examined through mathematics. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

#### **HONR 255AN - Honors: Social Sciences-A/Science**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of the Social Sciences-A (Anthropology/Psychology/Sociology) coordinated and examined through one or more of the sciences. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

#### **HONR 256NM - Honors: Science/Mathematics**

Credit(s): 4

*Prerequisite(s):* acceptance into the Scholars Program.

Title will vary. This course involves critical analysis of major themes of the sciences coordinated and examined through mathematics. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

#### **HONR 257HB - Honors: Humanities/Social Sciences-B**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of Social Sciences-B (Economics, History, Political Science) coordinated and examined through the humanities. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

#### **HONR 258NB - Honors: Science/Social Sciences-B**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of the Social Sciences-B (Economics, History, Political Science) coordinated and examined through themes of the sciences. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

#### **HONR 259MB - Honors: Mathematics/Social Sciences-B**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of the Social Sciences-B (Economics, History, Political Science) coordinated and examined through mathematical concepts. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

## 2015-2016

### **HONR 260FA - Honors: Fine Arts/Social Sciences-A**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of the Social Sciences -A (Anthropology, Psychology, Sociology) coordinated and examined through the fine arts. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

### **HONR 261FB - Honors: Fine Arts/Social Sciences-B**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of the Social Sciences-B (Economics, History, Political Science) coordinated and examined through the fine arts. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

### **HONR 262FN - Honors: Fine Arts/Science**

Credit(s): 4

*Prerequisite(s):* acceptance into the Scholars Program.

Title will vary. This course involves critical analysis of major themes of the sciences coordinated and examined through the fine arts. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

### **HONR 263FM - Honors: Fine Arts/Mathematics**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of the fine arts coordinated and examined through mathematics. Skills in critical reading/analysis and the development of ideas through argument, writing, and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

### **HONR 264GH - Honors: Global Issues/Humanities**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of the humanities coordinated and examined through global perspectives, ethnocentrism and cultural pluralism. Skills in critical reading/analysis and the development of ideas through argument, writing and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

## Course Descriptions

### **HONR 265GM - Honors: Global Issues/Mathematics**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of global perspectives, ethnocentrism and cultural pluralism coordinated and examined using quantitative interpretations. Skills in critical reading/analysis and the development of ideas through argument, writing and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

### **HONR 266GA - Honors: Global Issues/Social Sciences-A**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of Social Sciences-A (Anthropology, Psychology, Sociology) coordinated and examined through global perspectives, ethnocentrism and cultural pluralism. Skills in critical reading/analysis and the development of ideas through argument, writing and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

### **HONR 267GB - Honors: Global Issues/Social Sciences-B**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of Social Sciences-B (Economics, History, Political Science) coordinated and examined through global perspectives, ethnocentrism and cultural pluralism. Skills in critical reading/analysis and the development of ideas through argument, writing and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

### **HONR 268GF - Honors: Global Issues/Fine Arts**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of major themes of the fine arts coordinated and examined through global perspectives, ethnocentrism and cultural pluralism. Skills in critical reading/analysis and the development of ideas through argument, writing and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)

### **HONR 269GN - Honors: Global Issues/Science**

Credit(s): 4

*Prerequisite(s):* acceptance into the Honors Program.

Title will vary. This course involves critical analysis of global perspectives, ethnocentrism and cultural pluralism coordinated and examined using major themes in the sciences. Skills in critical reading/analysis and the development of ideas through argument, writing and oral communication will be utilized in order to engage student's knowledge, imagination and creativity. (Intermittently)



## Human Services (HS)

### **HS 100A - Introduction to Human Services/Social Work**

Credit(s): 3

*Prerequisite(s):* WRIT 101W or satisfactory placement test scores on the reading and writing section.

This course is an overview and orientation to the field of human services and related helping fields. Students will be able to identify basic helping skills and areas of knowledge needed for working with people. There will be a review of theoretical perspectives, careers, social policies, issues, and controversies in the field of Human Services. (Fall and Spring Semesters)

### **HS 210 - Case Management**

Credit(s): 2

*Prerequisite(s):* HS 100A or HS 250 or PSYX 100A.

This course will introduce the student to service planning and the continuum of care in Human Services and Addiction Counseling. Students will understand and demonstrate activities associated with case management such as consumer identification, outreach, prevention relapse, assessment of needs, service planning, advocacy referral, etc. (Fall Semester)

### **HS 250 - Interviewing/Crisis Intervention**

Credit(s): 4

*Prerequisite(s):* HS 100A or PSYX 100A.

Basic interviewing and interpersonal communication skills will be introduced and practiced. As basic skills are mastered, the class will move into the skills associated with counseling and crisis intervention. Theoretical and conceptual information related to effective intervention will be presented. Practical guidelines and techniques that will apply to a wide variety of intervention settings will be discussed and practiced. (Fall Semester)

### **HS 279 - Legal, Ethical, and Professional Issues in Human Services**

Credit(s): 3

*Prerequisite(s):* HS 100A, PSYX 100A or instructor's consent.

This course is an overview of the ethical and professional issues associated with the provisions of social services. Values, morality, and the major ethic issues facing practitioners will be addressed. (Spring Semester)

### **HS 294 - Placement Seminar I**

Credit(s): 1

*Corequisite(s):* HS 295 Field Experience I or instructor's consent.

This seminar is for the monitoring of the student's field experience. Students' participation in the field is reviewed and evaluated. Specific topics and issues related to specific placements will be addressed. Students will develop their own specific educational goals for placement. This course may be repeated for a total of two credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

### **HS 294 - Placement Seminar II**

Credit(s): 1

*Corequisite(s):* HS 295 Field Experience II or instructor's consent.

This seminar is for the monitoring of the student's field experience. Students' participation in the field is reviewed and evaluated. Specific topics and issues related to specific placements will be addressed. Students will develop their own specific educational goals for placement. This course may be repeated for a total of two credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

### **HS 294 - Placement Seminar III**

Credit(s): 1

*Corequisite(s):* HS 295 Field Experience III or instructor's consent.

This seminar is for the monitoring of the student's field experience. The student's experience is reviewed and evaluated to ensure student learning is occurring. Specific topics and issues related to specific placements will be explored. Students will develop their own specific educational goals for placement. This course may be repeated for a total of two credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

### **HS 295 - Field Experience I**

Credit(s): 3

*Prerequisite(s):* HS 100A or HS 250 or PSYX 100A and instructor's consent.

*Corequisite(s):* HS 294 Placement Seminar I.

The Field Experience provides the student with the opportunity to take academic knowledge gained through his/her coursework and apply the knowledge in a real agency. The student is provided with an environment to discuss and apply learning in various situations. Placements are arranged to allow the student to develop and practice learned competencies of knowledge gained in academic classes to real life settings and problems. This course may be repeated for a total of six credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

### **HS 295 - Field Experience II**

Credit(s): 3

*Prerequisite(s):* HS 100A or HS 250 or PSYX 100A and instructor's consent.

*Corequisite(s):* HS 294 Placement Seminar II.

The Field Experience provides the student with the opportunity to take academic knowledge gained through his/her coursework and apply the knowledge in a real agency. The student is provided with an environment to discuss and apply learning in various situations. Placements are arranged to allow the student to develop and practice learned competencies of knowledge gained in academic classes to real life settings and problems. This course may be repeated for a total of six credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

## 2015-2016

### **HS 295 - Field Experience III**

Credit(s): 3

*Prerequisite(s):* HS 100A or HS 250 or PSYX 100A, and instructor's consent.

*Corequisite(s):* HS 294 Placement Seminar III.

The Field Experience provides the student with the opportunity to take academic knowledge gained through his/her coursework and apply the knowledge in a real agency. The student is provided with an environment to discuss and apply learning in various situations. Placements are arranged to allow the student to develop and practice learned competencies of knowledge gained in academic classes to real life settings and problems. This course may be repeated for a total of six credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

### **History: American (HSTA)**

#### **HSTA 101B - American History I**

Credit(s): 4

This course is a comprehensive introductory history of Colonial, Revolutionary, Jeffersonian, Jacksonian, and Civil War era America. (Fall Semester)

#### **HSTA 102B - American History II**

Credit(s): 4

This course is a comprehensive introductory history of America from the Gilded Age (1870s) to the present. (Spring Semester)

#### **HSTA 111B - American Civil Rights Movement**

Credit(s): 3

This course examines the historic background of the civil rights movement in the United States and discusses the events at the core of the movement in the 1950s and 1960s, putting the civil rights movement in the context of US political, social, and economic history. (Intermittently)

#### **HSTA 255B - Montana History**

Credit(s): 3

This course is an examination and evaluation of the political, social, cultural, economic, and geographic heritage of Montana as a territory and a state. (Fall and Spring Semesters)

### **History: World (HSTR)**

#### **HSTR 101B - Western Civilization I**

Credit(s): 4

This course covers prehistoric days to the mid-17th century, with emphasis on the political, social, cultural, and economic aspects of the great civilizations of the earlier period, and the revolutions in politics, commerce, industry, and science which ushered in the modern era. (Fall Semester)

#### **HSTR 102B - Western Civilization II**

Credit(s): 4

This course covers early 1500s to the present with emphasis on the rise of national systems, and the on-going revolutions in Western Civilization with attendant philosophic, economic, and political conflicts and influences. (Spring Semester)

## Course Descriptions

### **HSTR 284G - Environmental History**

Credit(s): 3

This course is an introduction to the Western Civilization background, American development, and current global implications of environmental issues. (Fall Semester)

### **Health (HTH)**

#### **HTH 101 - Opportunities in the Health Professions**

Credit(s): 2

This course is intended to offer students an opportunity to explore the world of health care. Through research, discussion groups, and observations, students will explore various career paths in health care. Students will identify the educational requirements for various health care careers. Some of the topics to be discussed are characteristics of health care personnel, certifications and licensing, health care systems, health care philosophy, law and ethics pertaining to health care, client advocacy, current issues and trends in health care and economic issues in health care. (Fall and Spring Semesters)

#### **HTH 110 - Personal Health and Wellness**

Credit(s): 3

This course is the study of health principles enabling the student to make the essential choices for a more healthful lifestyle. (Fall Semester)

### **Heating, Ventilating, Air Conditioning, and Refrigeration Maintenance Technology (HVC)**

#### **HVC 101 - HVAC Fundamentals**

Credit(s): 2

This course is designed to explore the common aspects of heating, ventilation, air conditioning, (HVAC) technology. Discussion will focus on such topics as heat transfer methods, basic terminology and definitions, industry specific safety topics, and applied physics for HVAC systems. This is the required foundation course for students enrolled in the HVAC Program. (Internet course only.) (Fall and Spring Semesters)

#### **HVC 120 - Boiler Operator Certification**

Credit(s): 2

This is an introductory course in heating and power low pressure boiler systems. It will introduce the concepts and terminology of commercial, industrial, and residential boiler systems and emphasize troubleshooting and maintenance procedures employed in maintaining hot water systems. Area of focus include boiler fundamentals, boiler types, steam and hydronic boilers, fuels and burner types, valve identification, safety and relief valves, water level controllers, and industry safety issues associated with boiler accidents. The course will prepare students to take the Boiler Operator license exam. (Fall and Spring Semesters)

# Course Descriptions

2015-2016

## HVC 130 - HVAC Electrical

Credit(s): 3

Basic electrical safety and electrical theory such as Ohms Law, circuit schematic symbols, and circuit characteristics, will be discussed as it specifically applies to DC and AC circuits in the HVAC industry. Additional theory will be presented regarding magnetism as it applies to AC power generation. The course will also include discussions and calculation of the effects of capacitive, induction, and resistive circuits. The course concludes with an overview of transformers. This course is a prerequisite to HVC 230. Students enrolled in the HVAC program are required to take this course. (Internet course only.) (Fall and Spring Semesters)

## HVC 131 - Electrical and Refrigeration Lab

Credit(s): 1

This is a laboratory course that covers service of electrical circuits and service of refrigeration units. There is an emphasis on troubleshooting. (Fall Semester)

## HVC 140 - HVAC Systems I

Credit(s): 3

*Prerequisite(s):* HVC 101.

This course is a logical continuation of HVC 101. Topics covered will include human comfort, psychometrics, introduction to basic air distribution systems, air flow measurement calculations and balance considerations. The course will culminate with the student doing a basic heat load calculation for a residential structure and selecting heating equipment to be installed. Students enrolled in the HVAC program are required to take this class. (Internet course only.) (Fall Semester)

## HVC 198 - Internship: Basic HVAC

Credit(s): 1

*Prerequisite(s):* advisor's consent.

This course offers a supervised, structured learning experience at an approved HVAC business facility. Students will receive an orientation to some basic duties and tasks performed by a technician, and will be assigned some very basic tasks expected of an entry-level employee. Completion of these tasks, under the supervision of an experienced technician, will enhance the student's knowledge of the day-to-day work of a technician in this field. Prior to placement at an internship site, students will attend an internship orientation to learn the application and internship process. (Fall Semester)

## HVC 230 - HVAC Electrical II

Credit(s): 3

*Prerequisite(s):* HVC 130.

Areas of study will include basic control circuits, sequence of operation of basic HVAC applications, electric motor theory and specific information on HVAC electrical component devices. The main focus of this course is the various types of AC electric motors and starting components used by single-phase and three-phase motors found in residential and light commercial applications. Students enrolled in the HVAC program are required to take this course. (Internet course only.) (Spring Semester)

## HVC 240 - HVAC Systems II

Credit(s): 3

*Prerequisite(s):* HVC 140.

This course is a continuation of HVC 140. Topics covered include duct sizing with activities based on previous work in HVC 140. Additional activities will include a residential cooling load calculation and selection of cooling equipment. The course will conclude with an overview of accessories utilized in a residential HVAC system. Students enrolled in the HVAC program are required to take this class. (Internet course only.) (Spring Semester)

## HVC 250 - HVAC Refrigeration I

Credit(s): 3

*Prerequisite(s):* HVC 140.

This course provides an introduction to the mechanical compression refrigeration cycle and the necessary components. Students will be introduced to the common terms and definitions of the cycle as well as what, when, and where to measure temperatures and pressures for diagnostics. An in-depth discussion of the four major components (i.e.; Compressor, Condenser, Metering Device, and Evaporator) will conclude with all of them working together in a hypothetical system moving heat energy. (Internet course only.) (Spring Semester)

## HVC 295 - HVAC Field Experience I

Credit(s): 10

*Prerequisite(s):* instructor's consent.

This course is designed to provide students with career-related experience and an opportunity to benefit from those experiences. The field experience (the job) gives the student the chance to apply the skills and knowledge gained in the actual workplace. (Intermittently)

## HVC 298 - Internship: Advanced HVAC

Credit(s): 1

*Prerequisite(s):* HVC 198 and advisor's consent.

This course offers a supervised, structured learning experience at an approved HVAC business facility. Students will receive an orientation to some advanced duties and tasks performed by a technician, and will be assigned to assist in some of these tasks. Completion of these tasks, under the supervision of an experienced technician, will enhance the student's knowledge of the day-to-day work of a technician in this field. (Spring Semester)

**Individual Development (ID)****ID 51~ - College Reading Strategies**

Credit(s): 3

*Prerequisite(s):* instructor's consent.

This course offers an overview of the concepts and strategies needed to meet the demands of reading college level materials with success. Emphasis will be placed on specific reading strategies based on critical thinking needed in most subject area courses. This course is especially beneficial for the individual who has been away from textbook reading for a period of time. This course may be repeated for a total of six credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

**ID 61~ - Personalized Language Arts**

Credit(s): 1-3

Provides individualized instruction in any of the language arts skills needed to enhance student success in college work. Students can enroll in this lab-based course at any time in the semester prior to the final drop/add date. Individual contracts will be developed and will vary according to student need. This course may be repeated for a total of six credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**ID 100 - College Success Strategies**

Credit(s): 2

This course is designed to increase the student's chances of academic success in college. The course will focus on assisting the student in developing practical study skills techniques. Topics in this course include time management, memory techniques, test anxiety, test-taking, communication skills, study techniques, note-taking and stress. (Fall and Spring Semesters)

**ID 101 - Transition to College**

Credit(s): 1

This course is intended for students entering higher education for the first time. It will provide information, experience and activities designed to acquaint students with resources and learning opportunities available at FVCC. Students will learn how to succeed in college, and will examine and clarify personal, academic, and career choices. (Fall and Spring Semester)

**ID 110 - Career Awareness**

Credit(s): 2

A must class for the undecided, general studies student, or people who are considering a career change. Learn to explore and evaluate career options and to set career goals consistent with personal values, needs, interests, and skills. Students establish a career plan and develop job search skills through the use of personal inventories and computerized search systems. Emphasis will be placed on developing skills that enable students to continue this process throughout life. (Fall and Spring Semesters)

**ID 120 - Employment Strategies**

Credit(s): 1

This course introduces students to up-to-date, effective job search methods. Students will learn how to research employers, find job leads, develop job search tools and interview successfully, using both written and electronic techniques. (Fall Semester)

**Interdisciplinary Studies (IDS)****IDS 120 - Academic Communication Skills**

Credit(s): 3

This course is designed to develop critical speaking, reading, and writing strategies. It focuses on increasing reading comprehension, rhetorical knowledge, conventions, critical thinking, and study skills. Students will engage in diverse applied writing, speaking, and listening opportunities. Students will be able to monitor positive and negative comprehension signals and apply appropriate strategies to correct incomplete comprehension. (Fall and Spring Semesters)

**Languages: Italian (ITLN)****ITLN 101GH - Elementary Italian I**

Credit(s): 5

This course's primary goal is to bring students directly in touch with the language and culture of contemporary Italy. The course format and structure will enable students to acquire solid grammar and conversational skills but also get acquainted with the Italian culture. (Intermittently)

**ITLN 102GH - Elementary Italian II**

Credit(s): 5

*Prerequisite(s):* ITLN 101GH or equivalent.

This course will broaden your Italian language skills and deal more in-depth with Italian culture and history. (Intermittently)

**Information Technology Systems (ITS)****ITS 164 - Networking Fundamentals**

Credit(s): 3

This course is an introduction to networking fundamentals with both lecture and hands-on activities. Topics include the OSI model and industry standards, network topologies, IP addressing (including subnet masks), and basic network design. (Intermittently)

**ITS 210 - Network Operating System-Desktop**

Credit(s): 3

This course examines the role of operating system software and other user interfaces. The primary focus will be on the installation, operation, maintenance, and system/diagnostic utilities of microcomputer operating systems in a multi-tasking operating systems environment. (Intermittently)



## **ITS 212 - Network Operating System-Server Admin**

Credit(s): 3

Emphasis is on management and use of common network operating systems. Topics and activities include product overview, installation, administration, problem resolution, configuration of security parameters and user accounts, console operations, and use of the network. (Intermittently)

## **ITS 216 - Network Operating System-Directory Services**

Credit(s): 2

*Prerequisite(s):* ITS 212.

This course looks at the planning and implementation processes, installing, maintaining, and troubleshooting Active Directory found within MS Windows Server 2003. Group and security policy creation and implementation will also be developed. (Intermittently)

## **ITS 218 - Network Security**

Credit(s): 3

This hands-on and theory-based course will study computer and network security. Topics will include threats; policy creation; implementing controls; securing hardware, networks, and operating systems; defending against attacks; and intrusion detection systems and practices. (Intermittently)

## **ITS 221 - Project Management**

Credit(s): 3

The purpose of this course is to provide students with the tools to successfully manage a web site project. Topics covered include managing a project's scope, cost, quality, and risk. Focus is on initiating, planning, executing, controlling, and closing projects. Software tools available to help manage and report on the project's progress will also be explored. (Spring Semester)

## **ITS 224 - Introduction to Linux**

Credit(s): 3

Emphasis is on management and use of common open source network operating systems. Topics and activities include product overview, installation, administration, problem resolution, configuration of security parameters and user accounts, console operations and use of the network. (Intermittently)

## **ITS 235 - IT Design Lab**

Credit(s): 2

*Prerequisite or Corequisite:* ITS 212, ITS 258.

This is a capstone, controlled environment course allowing the students to plan a network, install software on clients and servers, attach to peripherals, apply security principles, and troubleshoot. Planning and documentation as a necessary component of information technology management will be included. (Intermittently)

## **ITS 258 - Routing and Switching**

Credit(s): 4

*Prerequisite(s):* ITS 164.

This lab-based course will focus on network protocols, VLSM, router configuration, router IOS software management, routing protocols, access control lists, network address translation, LAN switching, and network design components. Troubleshooting in a network environment will be required. Objectives of the CCNA exam will be covered. (Intermittently)

## **ITS 280 - Computer Repair and Maintenance**

Credit(s): 3

This course covers the basic to more advanced features of maintaining, troubleshooting, and repairing the PC as required for completion of the A+ Certification Exam. Topics include safety, memory management, operating systems, managing files, software and hardware replacement, upgrades, and installations. (Intermittently)

## **ITS 298 - Internship/Cooperative Education**

Credit(s): 3

*Prerequisite(s):* BMIS 270 and completion of 30 semester credits with a grade point average of 2.0 or better. Submission of an internship application.

This course offers a supervised, structured learning experience at an approved business/organization. Students will receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students will receive assistance in developing application materials and finding worksites meeting learning and legal criteria from the Career Development Coordinator. (All Semesters)

## **Journalism (JRNL)**

### **JRNL 111C - Student Newspaper**

Credit(s): 3

*Prerequisite(s):* JRNL 272C, WRIT 101W, or instructor's consent. Students participate in publication of the student newspaper through reporting, writing, photography and/or layout design. Reporting and writing require assignments that include searching background information on stories, covering meetings, rewriting press releases and providing images to accompany stories. Photography requires photo documentation for stories. Layout design requires photo scanning and assembly of newspaper issues. (Fall Semester)

### **JRNL 112 - Student Newspaper II**

Credit(s): 3

*Prerequisite(s):* JRNL 111C, JRNL 272C, WRIT 101W, or instructor's consent.

Students participate in publication of the student newspaper through reporting, writing, photography and/or layout design. Reporting and writing require assignments that include searching background information on stories, covering a campus beat or topic, and providing images to accompany stories. Photography requires photo documentation for stories and feature assignments. Layout design requires photo scanning, assembly of newspaper issues and electronic delivery to printing press. (Spring Semester)



## 2015-2016

### JRNL 272C - News Writing and Reporting

Credit(s): 3

This course will introduce students to the concepts and techniques of news reporting, with an emphasis on writing for New Media. Students will be introduced to the basic journalism tools of interviewing, researching, and writing news for the World Wide Web and print publications. Students will write for the student publication, The Mercury News. (Fall and Spring Semesters)

### Kinesiology (KIN)

#### KIN 201 - Basic Exercise Prescription

Credit(s): 3

*Prerequisite(s):* HEE 220.

A dynamic course designed to familiarize students with the concepts of aerobic exercise and resistance training related to the areas of health, fitness, and performance. This course involves a combination of learning techniques, including lecture and hands-on activities. (Spring Semester)

#### KIN 203 - Functional Training

Credit(s): 2

In this course, students will develop a knowledge base of the variety of real world movements that the human body can generate, as well as exercises that can be utilized to improve the functionality of the human machine executing these movements. This course involves a combination of learning techniques including lecture and hands-on activities. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

#### KIN 215 - Fitness Assessment Techniques

Credit(s): 3

*Prerequisite(s):* BIOH 104N, BIOH 105L, HEE 220, HTH 110.

This course is designed to introduce students to the basic fitness assessment techniques and to provide an opportunity to develop assessment skills through hands-on laboratory experience. Discussions focus on background theory and rationale for each technique, assessment methodology and appropriate utilization of the generated information. (Spring Semester)

### Linguistics (LING)

#### LING 270 - Introduction to Linguistics

Credit(s): 3

This course will introduce students to the field of modern linguistics and to the nature of language. Students will gain an understanding of the fundamentals of linguistics, including syntax, semantics, phonology, pragmatics, language change, and language acquisition. (Intermittently)

## Course Descriptions

### Literature (LIT)

#### LIT 110H - Introduction to Literature

Credit(s): 3

This introductory course focuses on the reading, enjoyment, and critical analysis of fiction, poetry and drama. Students will read world literature, as well as works of the American West, contemporary dramatists, minority writers, and works focusing on the lives of immigrants, expatriates, and first-generation Americans. (Fall Semester)

#### LIT 112H - Introduction to Fiction

Credit(s): 3

This introductory course focuses on the reading, enjoyment, and critical analysis of the short story and the novel. Students will read world literature, as well as contemporary writers of the American West; minority writers; and writers focusing on the lives of immigrants, expatriates and first-generation Americans. (Spring Semester)

#### LIT 120H - Poetry

Credit(s): 3

This course is an introduction to the reading, enjoyment, interpretation, critical analysis, and appreciation of selected poetry. (Fall Semester)

#### LIT 206GH - European Literature of the 20th Century

Credit(s): 3

"The old country..." mysterious, exotic, sophisticated, and full of contradictions: yet a much romanticized and nostalgically remembered "home" for so many Americans. This lecture and discussion course will focus on great writings and films of 20th century Europe, and familiarize students with crucial events of European art and history. (Intermittently)

#### LIT 210H - American Literature I

Credit(s): 3

This survey course is designed to give students a broad overview of the evolving canon of influential literary works produced in America from approximately 1600 through 1865. Students will read a variety of exemplary texts from a historical perspective in order to critically analyze the formation of our American identity. (Fall Semester)

#### LIT 211H - American Literature II

Credit(s): 3

This survey course is designed to give students a broad overview of the evolving canon of influential works produced in American Literature from 1865 to the present. Students will examine a variety of authors including African American, Native American, Asian, and Hispanic writers, and will focus on increasing awareness of how historical, economic, social, and geographical concerns help to mold our unique American identity. (Spring Semester)

# Course Descriptions

2015-2016

## LIT 213H - Montana Literature

Credit(s): 3

Students analyze Native American oral tales and examine past booms and busts: furs, exploration, cattle, mines and homestead leading to today. The journey covers 200+ years. Students evaluate historical time frames and differing viewpoints and examine Montana's ties to the larger world and the legacies of many cultures. They explore several genres: oral tales, diaries, letters, essays, stories, poems and drama/films. Discussion uses critical thinking to evaluate issues: environmentalism, colonialism, multicultural, aboriginal and women's rights, and Hollywood's impact on Montana. (Fall Semester)

## LIT 216H - American Short Story

Credit(s): 3

This course will trace the popular literary genre known as the short story from its inception in the early 19th century through the present. The course will examine the role of the short story in American history, and will focus on stories that reflect the various social, economic, and gender concerns of male and female authors from diverse ethnic backgrounds. (Spring Semester)

## LIT 223H - British Literature I

Credit(s): 3

This introduction to British writers and works begins with the ancient heroes and monsters in Beowulf and continues through the Middle Ages with readings from "The Canterbury Tales," as well as King Arthur and the Knights of the Round Table. The adventure continues during the Renaissance with "The Tragedy of Dr. Faustus," then moves on to a variety of works during the Restoration and 18th century: from the stinging satire, "Gulliver's Travels" to the hilarious comedy "She Stoops to Conquer." Literature read throughout the course will include a number of poems, essays, plays and stories. (Fall Semester)

## LIT 224H - British Literature II

Credit(s): 3

The course includes Romantic poets Wordsworth and Keats, Victorians Bronte, Tennyson, and Elizabeth Barret Browning as well as 20th century writers D.H. Lawrence, Virginia Woolf, Tom Stoppard and Seamus Heaney. (Spring Semester)

## LIT 225H - Shakespeare: Tragedy and Comedy

Credit(s): 3

In this course students will read, discuss and, if possible, see a presentation of selected tragedies and comedies: King Lear, Julius Caesar, The Tempest, A Midsummer Night's Dream and others. (Spring Semester)

## LIT 226H - Shakespeare: History and Tragedy

Credit(s): 3

In this course students will read, discuss and, if possible, see a presentation of selected tragedies and history plays of Shakespeare: *Hamlet*, *Othello*, *Macbeth*, *Henry IV, Part I*, *Richard II*, and others. (Fall Semester)

## LIT 240H - Bible as Literature

Credit(s): 3

This course begins with the premise that the books of the Bible are literary and cultural documents written by men for men, not theological tracts written or inspired by God. Students will read and analyze these texts as an anthology of literature that includes history, poetry, letters, apocalyptic literature, mythological material, prophetic books, law, and other genres. Emphasis will be upon the First Testament or Hebrew Bible (the *Tanakh*) and Revelation. In addition, problems of textual authorship, translation, redaction, and interpolation will be introduced. Material covered will also include modern archaeology's impact upon both biblical criticism and the historical accuracy of the biblical stories. (Spring Semester)

## LIT 243 - Women of the Bible: A Literary Approach

Credit(s): 3

This course will focus upon the important role biblical women played in the development of biblical history and the consequent status of women within the larger Judeo-Christian social and cultural milieu. Emphasis will be upon the Old Testament (or Hebrew Bible) with some investigation into the New Testament and the presence (or non-presence) of women there. Students will analyze what the Bible says, and does not say, about women and their role in society in ancient times and its effect upon women through the ages. With an emphasis upon, but not limited to, feminist scholarship of the last 25 years, the Bible will be examined as literature produced by humans for humans, a "literary" canon as opposed to a "theological" canon. Sexism, androcentrism, pagan sources, powerlessness, positive stages of women, and female symbolism will be discussed as will problems of textual authorship, translation, redaction, and interpolation. Material covered will include modern archaeology's impact upon both biblical criticism and the historical accuracy of the biblical stories. (Intermittently)

## LIT 271H - Introduction to Science Fiction Literature

Credit(s): 4

This course will study the development of science fiction as a literary genre that investigates the technological and social dilemmas encountered by humanity. The history of science fiction, the significant authors, and the genre's moral questions will be covered through an examination of the texts and films that have framed science fiction. (Spring Semester)

## LIT 285H - Mythologies

Credit(s): 3

This is a lecture and discussion class that explores the Greek and Roman mythologies, their plausibility, supposed purpose, and applications, historical and contemporary. (Fall and Spring Semesters)

**LIT 286GH - Comparative Mythology**

Credit(s): 3

This course examines the fundamental principles and motifs present in mythologies from around the world. Students in this course will study eight mythic types: the mono-myth; shamanism; the concept of feminine and masculine principles; the four functions of mythology, and mythological symbolism. Each of these components will be examined through myths from Egyptian, Asian, African, Norse, European, Celtic, and Indigenous North and South American traditions. (Fall and Spring Semesters)

**Liberal Studies and Humanities (LSH)****LSH 261H - Introduction to the Humanities Origins and Influences I**

Credit(s): 4

This course offers an interdisciplinary survey of human creative achievements from Prehistory through the Late Middle Ages. By examining major works of art, architecture, music, literature and philosophy, students will gain an awareness of human productivity and the historical contexts that provided its inspiration, as well as an enhanced appreciation of the rich cultural heritage that informs our own contemporary identity. (Fall Semester)

**LSH 262H - Introduction to the Humanities Origins and Influences II**

Credit(s): 4

This course offers an interdisciplinary survey of human creative achievements from Early Renaissance to Postmodernism. By examining major works of art, architecture, music, literature and philosophy, students will gain an awareness of human productivity and the historical contexts that provided its inspiration, as well as an enhanced appreciation of the rich cultural heritage that informs our own contemporary identity. (Spring Semester)

**Mathematics (M)****M 061~ - Basic Mathematics**

Credit(s): 3

*Prerequisite(s):* Math Department's consent.

This first-level mathematics course is devoted to instruction in basic skills necessary for advancement in the college math sequence. The course is self-paced and students work with the instructor to set and achieve the math skill level goals needed to meet academic, personal or vocational objectives. This course may be repeated for a total of nine credits. This course is not eligible for Federal or State financial aid. (All Semesters)

**M 065~ - Prealgebra**

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "SA" in M 061~, or Math Department consent.

This course is designed for those students who need to improve their prealgebra skills in order to succeed in M 090~. Topics include signed numbers, basic factoring, basic equation solving, an introduction to polynomials, square roots, basic graphing and basic exponent rules. (All Semesters)

**M 090~ - Introductory Algebra**

Credit(s): 4

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 065~, or Math Department consent.

This course provides an introduction to algebra. The course covers the topics of solving and graphing linear equations, solving systems of linear equations, introductory polynomials and factoring, basic function notation, and graphing and solving basic quadratics. Graphical and algebraic approaches to solving equations and application problems will be used throughout the course. (All Semesters)

**M 095~ - Intermediate Algebra**

Credit(s): 4

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 090~, or Math Department consent.

This course is the second semester of algebra review and provides preparation for college-level math courses. This course concentrates on polynomial, logarithmic, exponential, rational and radical expressions and equations. This course also covers the graphs of functions, solving linear systems of equations algebraically and with matrices, and basic probability concepts. (All Semesters)

**M 111 - Technical Mathematics**

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 065~, or Math Department consent.

This course presents basic mathematical topics as they are applied in a trades program. Topics covered include use of measuring tools, measurement systems, dimensional arithmetic, percents, proportions, applied geometry, and basic trigonometry. This course is intended for specific programs. (Fall and Spring Semesters)

**M 114 - Extended Technical Mathematics**

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 065~, or Math Department consent.

This course presents mathematical topics as they are applied in a trades program. Topics covered include use of measuring tools, measurement systems and dimensional analysis, basic algebra topics, scientific notation, applied geometry, right and oblique triangle trigonometry, and exponential and logarithmic formulas. This course is intended for specific programs. (Fall and Spring Semesters)

**M 115M - Probability and Linear Mathematics**

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 095~, or Math Department consent.

The course will cover systems of linear equations and matrix algebra including linear programming. An introduction to probability with emphasis on models and probabilistic reasoning will be covered. Examples of applications will be demonstrated from a wide variety of fields. (All Semesters)



# Course Descriptions

2015-2016

## M 121M - College Algebra

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 095~, or Math Department consent.

This course concentrates on the properties and applications of functions: namely polynomial, rational, radical, exponential, and logarithmic functions of a real variable. The functions will be studied from symbolic, graphic and numeric perspectives.

Polynomial, rational, radical, exponential, and logarithmic functions of a real variable will be used to model real-world phenomena and solve applied problems. (Intermittently)

## M 123 - Surveying Mathematics I

Credit(s): 2

*Prerequisite(s):* appropriate placement test score or Math Department consent.

*Corequisite(s):* M 095~.

This course includes geometry, particularly perimeter, circumference, area and volume, and trigonometry. Trigonometry topics are both right angle and oblique angle triangles. (Fall Semester)

## M 124 - Surveying Mathematics II

Credit(s): 3

*Prerequisite(s):* a grade of "C" or better in M 095~ and M 123 or Math Department consent.

This course includes analytical geometry and calculus. The calculus topics are derivatives and integrals of functions of one variable. (Spring Semester)

## M 132M - Number and Operations for K-8 Teachers

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "C-" or better in M 095~, or Math Department consent.

This course focuses on the study of numbers and operations for prospective elementary and middle school teachers. Topics include all subsets of the real number system, arithmetic operations and algorithms, numeration systems and problem solving. (Fall and Spring Semesters)

## M 133M - Geometry and Geometric Measurement for K-8 Teachers

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "C-" or better in M 095~, or Math Department consent.

This course focuses on the study of geometry and geometric measurement for prospective elementary and middle school teachers. Topics include synthetic, transformational and coordinate geometry, Euclidean constructions, congruence and similarity, 2D and 3D measurement, and problem solving. (Fall and Spring Semester)

## M 145M - Mathematics for the Liberal Arts

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "C-" or better in M 095~, or Math Department consent.

This course covers linear, quadratic and exponential functions, and basic trigonometry. It also covers topics from some of the following: geometry, financial mathematics, probability, statistics, and calculus. (All Semesters)

## M 152M - Precalculus Algebra

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 095~, or Math Department consent.

This course is the first semester of a precalculus series. Topics covered include equations, systems of linear equations and methods of solution (including matrices), exponents and radicals, linear and quadratic functions (and their graphs), exponential and logarithmic functions (and their graphs), sequences and series. (All Semesters)

## M 153M - Precalculus Trigonometry

Credit(s): 4

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 152M, or Math Department consent.

This course is the second semester of a precalculus series. Trigonometric functions are introduced using the circular and angular definitions. Trigonometric graphs, identities, equations and applications are investigated. Polar coordinates, polar graphs and conic sections are also covered. (All Semesters)

## M 162M - Applied Calculus

Credit(s): 5

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 152M, or Math Department consent.

This course is an applications oriented approach to differential and integral calculus. Topics covered are limits, derivatives, applications of derivatives, definite integrals, and applications of the definite integral; these topics are covered for functions of one variable, including exponential, logarithmic and trigonometric functions. Applications of the calculus will be demonstrated through a technology component for the course. (Fall Semester)

## M 171M - Calculus I

Credit(s): 5

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 152M and M 153M, or Math Department consent.

This is the first of three standard courses in calculus, the others are M 172M and M 273M. The course includes limits and continuity, derivatives, applications of derivatives and integration. The types of functions studied include algebraic, trigonometric, exponential, and logarithmic. (Fall Semester)

## M 172M - Calculus II

Credit(s): 5

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 171M, or Math Department consent.

This is the second of three standard courses in calculus. The course includes transcendental functions, applications and techniques of integration, infinite series, parametrized curves, and polar curves. (Spring Semester)

## M 221M - Introduction to Linear Algebra

Credit(s): 4

*Corequisite(s):* M 171M or Math Department consent.

The study of vectors in the plane and space, systems of linear equations, matrices, determinants, linear transformations, eigenvalues, and eigenvectors. Calculators and/or computers are used where appropriate. (Intermittently)

## 2015-2016

### **M 225M - Introduction to Discrete Mathematics**

Credit(s): 4

*Prerequisite(s):* a grade of "C" or better in M 171M, or Math Department consent.

The study of mathematical elements of computer science including propositional logic, predicate logic, sets, functions, and relations, combinatorics, mathematical induction, recursion, and algorithms, matrices, graphs, trees, structures, morphisms, Boolean algebra, and computer logic. (Intermittently)

### **M 234 - Higher Mathematics for K-8 Teachers**

Credit(s): 3

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 132M, or Math Department consent.

This course focuses on the study of algebra, number theory, probability and statistics for prospective elementary and middle school teachers. Topics include proportional reasoning, functions, elementary number theory, statistical modeling and inference, and elementary probability theory. (Fall and Spring Semesters)

### **M 242 - Methods of Proof**

Credit(s): 3

*Prerequisite(s):* M 171\* or Math Department consent

This course is an introduction to the axiomatic nature of modern mathematics. Emphasis is placed on the different methods of proof that can be used to prove a theorem. Mathematical topics discussed include symbolic logic, methods of proof, specialized types of theorems and proofs. (Spring Semester)

### **M 273M - Multivariable Calculus**

Credit(s): 5

*Prerequisite(s):* a grade of "C" or better in M 172M or Math Department consent.

This is the third semester of a three semester sequence in calculus, intended for students majoring in engineering, mathematics, chemistry, or physics. It includes vectors, vector-valued functions, partial derivatives, multiple integrals, and integration in vector fields. (Fall Semester)

### **M 274M - Introduction to Differential Equations**

Credit(s): 5

*Prerequisite(s):* a grade of "C" or better in M 273M or Math Department consent.

This is a first course in ordinary differential equations. Topics may include: linear and non-linear first order differential equations and systems, existence and uniqueness for initial value problems, series solutions, Laplace Transformations, and linear equations of second and higher order. Applications include: forced oscillation, resonance, electrical circuits and modeling differential equations. (Spring Semester)

### **M 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s):* instructor's consent.

Undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

## Course Descriptions

### **Media Arts (MART)**

#### **MART 222 - 3D Motion Design**

Credit(s): 4

The purpose of this course is to introduce students to 3D and animation roles in a range of industries, such as television graphics, game design and visual effects design. This course will give students an introduction to 3D animation and modeling. (Fall and Spring Semesters)

#### **MART 231 - Interactive Web I**

Credit(s): 4

This course introduces web development tools to create websites using industry standard practices and techniques. Students use HTML5 and Cascading Style Sheets to plan, design, and develop responsive websites. Topics include web design best practices, website hosting, web graphics, design standards, and embedding media. (Fall Semester)

#### **MART 232 - Interactive Web II**

Credit(s): 4

*Prerequisite(s):* MART 231.

This course focuses on teaching students advanced web design concepts. Students will further their experience with web design, focusing on HTML5, CSS3, and a CMS to create responsive designs. (Spring Semester)

#### **MART 234 - Emerging Web Technologies**

Credit(s): 3

*Prerequisite(s):* MART 232.

An advanced web course where students will explore new and emerging web technologies. This project-based course will apply these new techniques and tools to website development. (Fall Semester)

### **Machining and Manufacturing Technology (MCH)**

#### **MCH 101 - Introduction to Manufacturing Processes**

Credit(s): 1

This course is designed to provide the student a learning experience with the basic tools, equipment, and operations of manufacturing industries. The goal is for the student to understand the relationship among a manufacturing need, a design, the materials and processes used, as well as the tools and equipment necessary to manufacture a product. (Fall and Spring Semesters)

#### **MCH 102 - Introduction to Manufacturing Materials**

Credit(s): 2

This is an introductory course in the study of materials used in the manufacturing industry. Topics include selection and identification of steels, selection and identification of nonferrous metals, mechanical behavior of various plastics, hardening, case hardening, tempering, annealing, normalizing, stress relieving, and the use of the Rockwell and Brinell hardness testers. (Spring Semester)



## **MCH 120 - Blueprint Reading and Interpretation for Machining**

Credit(s): 3

This course introduces the fundamental concepts necessary to interpret drawings and produce sketches for machine tool applications as applied to Machine Tool Technology. Topics include advanced sectioning, geometric dimensioning, geometric tolerance, and assembly drawings/sketching. Interpretation of specifications and determination of acceptable tolerance requirements to ensure quality control measures for design parts will also be stressed. (Fall and Spring Semesters)

## **MCH 122 - Introduction to CAM**

Credit(s): 3

This course introduces CAM operational basics for both mill and lathe programming using current CAM software. The course includes terminology relevant to PC-based CAD/CAM work, hardware familiarity, system operation and management, folders, file type and structure, menu structure and use, and 2 ½ axis (milling machines) and 2 axis (lathes) tool paths. Emphasis is placed on proper geometric creation, management, relevant utilities, C-hooks, and toolbar and menu functions. (All Semesters)

## **MCH 125 - Introduction to CNC Lathe Operations**

Credit(s): 3

*Prerequisite(s):* MCH 132.

This course provides opportunities for students to develop skills in the setup and operation of CNC lathes. Topics include safety, lathe parts and controls, lathe tooling, lathe calculations, lathe setup and operations. This is a performance-based course that requires the production of assigned tool projects. (Spring Semester)

## **MCH 127 - Introduction to CNC Mill Operations**

Credit(s): 3

*Prerequisite(s):* MCH 134.

This course provides instruction in the setup and operation of CNC mills. Student projects include specialty tooling and multi-axis machining. Students will also gain experience in process control. Topics include specialty tooling, multi-axis machining, process control, and laboratory exercises in part production. (Spring Semester)

## **MCH 129 - Machine Quality Control and Precision Measurements**

Credit(s): 3

Students will develop the knowledge and skills to prepare them to analyze and evaluate the processes and methodology required in an industrial production environment to determine if quality control standards are being met. Topics include: use of non-precision measuring tools, use of precision measuring tools, use of comparison gauges, and analysis of measurements in a CNC environment. (Fall and Spring Semesters)

## **MCH 132 - Introduction to Engine Lathes**

Credit(s): 4

*Corequisite(s):* MCH 120 and MCH 129, or instructor's consent.

This course is the study of basic machine tool operations and forming processes. Topics include lathe work, drilling operations, tooling, and fixture work. (Fall Semester)

## **MCH 134 - Introduction to Mills**

Credit(s): 4

The student will perform advanced hands-on machine shop operations: set up and operation of manual milling machines, drill presses, band saws, grinders, and other equipment commonly found in manufacturing facilities. The student will use precision measuring tools and methods, utilize blueprints, and perform project process planning. Various types of steel and aluminum are used. (Spring Semester)

## **MCH 220 - Geometric Dimensioning and Tolerancing**

Credit(s): 3

*Prerequisite(s):* DDSN 135 or MCH 122, MCH 129.

This course provides the basics of how to apply GD&T in metrology and CAD, including knowledge of the symbols, hands-on measurement of parts, and the use of CMMs. Students will learn the types and causes of measurement error, perform measurement setups. They will also learn about flatness, straightness, circularity, parallelism, angularity, concentricity, total run outs, position tolerancing, and gauge design for both soft and hard gauges. (Fall Semester)

## **MCH 221 - Advanced Manual Mill**

Credit(s): 3

*Prerequisite(s):* MCH 134.

This course will cover the use and care of rotary tables, indexing heads, tilting vices, sine bar setup, gear cutting, and line boring utilizing horizontal and vertical mills. The course will also cover various work holding methods, jig and fixture work, location methods, and process planning. (Fall Semester)

## **MCH 222 - Advanced CNC Mill Operations**

Credit(s): 3

*Prerequisite(s):* MCH 127.

This course provides advanced instruction in the setup and operation of the HAAS TM1 mill. Projects will include specialty tooling and automatic machining. Students will gain experience in process and quality control of part production. Other topics include specialty tooling, multi-axis machining, process control, and parts production. (Fall Semester)

## **MCH 223 - Advanced Manual Lathe**

Credit(s): 3

*Prerequisite(s):* MCH 132.

This course will cover carbide cutters and tool holders, spindle collets and drawbars, taper attachments, and digital readouts. Students will use advanced tooling attachments. There will be setup and cutting for simple cam, acme, and buttress threads. The course will emphasize that close tolerances are required. (Spring Semester)

## 2015-2016

## Course Descriptions

### **MCH 224 - Advanced CNC Lathe Operations**

Credit(s): 3

*Prerequisite(s):* MCH 125.

This course provides advanced instruction in the setup and operation of the HAAS TM1 lathe. Projects will include specialty tooling and automatic machining. Students will gain experience in process and quality control of part production. Other topics include specialty tooling, multi-axis machining, process control, and parts production. (Spring Semester)

### **MCH 225 - Machinery's Handbook**

Credit(s): 3

This course is an introduction to the basic trade handbook: Machinery's Handbook. The subjects that are covered include solving manufacturing problems using the various charts, formulas, and calculations. This course will also educate the student about how to find information quickly in this reference book, and how to apply the information to their specific applications. (Fall Semester)

### **MCH 226 - Advanced CAD/CAM**

Credit(s): 4

*Prerequisite(s):* MCH 122 or instructor's consent.

This is an advanced course in the study of computer aided manufacturing through the implementation of computer software for the design and creation of machine codes used in operating computer numerical control systems. Topics include 3D component and surface creation, development of advanced tool paths for machining advanced 3D components and surfaces, interface with advanced manufacturing systems with 4 axis or more, as well as Swiss CNC and Mill/Turn systems, simulation of tool paths, and instruction on live tooling synchronization. This course leads to an advanced understanding in design and programming for higher level machine tools. (Fall and Spring Semesters)

### **MCH 227 - Swiss CNC and Mill-Turn Systems**

Credit(s): 4

*Prerequisite(s):* MCH 226.

This is a course for the study and hands-on operation of advanced machine tools, specifically Swiss CNC or Mill-Turn systems. Topics include setup, "at system" programming, tooling and operation of advanced Swiss or Mill-Turn systems. The course will also emphasize system maintenance and service for these advanced machine tool categories. (Fall and Spring Semesters)

### **MCH 290 - Undergraduate Research**

Credit(s): 1-4

*Prerequisite(s):* instructor's consent.

This is an undergraduate research course that is under the supervision of a full-time instructor. This course may be repeated for a maximum of 12 credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

### **MCH 298 - Internship: Advanced Manufacturing**

Credit(s): 1

*Prerequisite(s):* advisor's consent.

This course offers a supervised, structured learning experience at an approved manufacturing business facility. Students will receive an orientation to some basic duties and tasks performed by a technician, and will be assigned some basic tasks expected of an entry-level employee. Completion of these tasks, under the supervision of an experienced technician, will enhance the student's knowledge of the day-to-day work of a technician in the field. Prior to placement at an internship site, students will attend an internship orientation to learn the application and internship process. (Spring Semester)

### **MCH 299 - Capstone: Machinist**

Credit(s): 3

*Prerequisite(s):* enrollment in the Tier IV Machining program.

This course provides opportunities for the student to arrange to complete special projects using knowledge gained in previous coursework. All projects must be approved by the instructor. (Spring Semester)

## **Manufacturing (MFGT)**

### **MFGT 115 - Machine Shop Fundamentals**

Credit(s): 2

The content and sample programs cover a broad range of manual and CNC machining using the software and flexible internet based learning content supported by a classroom instructor to deliver an innovative learning experience. (Fall and Spring Semesters)

## **Music (MUSI)**

### **MUSI 100 - Concert Attendance**

Credit(s): 0

This course is required of music majors every semester. Each student must attend eight concerts or recitals and sign in or submit proof of attendance. Satisfactory/Unsatisfactory course. (Fall and Spring Semesters)

### **MUSI 101F - Enjoyment of Music**

Credit(s): 3

This course traces the development of art music through the past 1000 years. Vocal and instrumental music and composers from the Middle Ages, Renaissance, Baroque, Classical, Romantic, and 20th century will be examined through listening, reading, and writing. Students will be presented with the analytical and comparative tools to identify and understand the various historical musical eras. (Fall Semester)

### **MUSI 104 - Music Fundamentals**

Credit(s): 1

This course provides an introduction to the music fundamentals including note reading in Bass and Treble Clef, Major Scales, Minor Scales, note values, and the I - IV - V chords in all keys. (All Semesters)

# Course Descriptions

2015-2016

## **MUSI 105F - Music Theory I**

Credit(s): 3

*Corequisite(s):* MUSI 140.

This is a course that teaches the fundamentals of music theory (meter, note values, rests, intervals, major scales, circle of fifths, chord construction, minor scales, basic harmonic progression, whole-tone scales and modes). (Fall Semester)

## **MUSI 106F - Music Theory II**

Credit(s): 3

*Prerequisite(s):* MUSI 105F.

*Corequisite(s):* MUSI 141.

This course is a continuation of MUSI 105F, which teaches the fundamentals of music theory (meter, note values, rests, intervals, major scales, circle of fifths, chord construction, minor scales, basic harmonic progression, whole-tone scales and modes). (Spring Semester)

## **MUSI 108 - Orchestra: Community Orchestra**

Credit(s): 1

The Community Orchestra prepares and performs orchestral literature of the past and present and requires rehearsals and public performances. Students must supply their own musical instruments. A maximum of four credits in music ensemble may be applied towards graduation. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

## **MUSI 108 - Orchestra: Glacier Symphony**

Credit(s): 1

*Prerequisite(s):* audition.

An audition-only group, the symphony prepares and performs orchestral literature of the past and present and requires intensive rehearsals and public performances. Students must supply their own musical instruments. A maximum of four credits in music ensemble may be applied towards graduation. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

## **MUSI 111 - Singing for Non-Majors**

Credit(s): 2

This course provides an introduction to the skills which enable and enhance healthy singing, including: proper vocal technique, performance skills, and artistic presentation. Students do not have to read music in order to succeed in this course. (All Semesters)

## **MUSI 112 - Choir: Community Choir**

Credit(s): 1

This course develops vocal skills and introduces a variety of choral literature through rehearsal and performance. A maximum of four credits in music ensemble may be applied towards graduation. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

## **MUSI 114 - Band: Community Band**

Credit(s): 1

This course introduces the inner workings of a band program with survey and basic training on a variety of instruments. A maximum of four credits in music ensemble may be applied towards graduation. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

## **MUSI 130F - History of Jazz**

Credit(s): 3

This course surveys the development of American jazz music from its roots in the late 19th century to the present decade. Students will become familiar with the various stylistic jazz eras through lecture, listening, analysis, discussion and student projects. Students will learn varieties and lineage of an important American musical art and acquire the tools to identify and compare various historical styles. (Fall Semester)

## **MUSI 131 - Jazz Ensemble I: FVCC**

Credit(s): 1

*Prerequisite(s):* audition.

This course is the study and performance of jazz repertoire. A maximum of four credits in music ensemble may be applied towards graduation. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

## **MUSI 132 F - History of Rock and Roll**

Credit(s): 3

This course surveys the development of rock and roll music from its early blues roots to the present decade. The student will become familiar with the various stylistic music eras through lecture, listening, analysis, discussion and the student projects. Students will learn varieties and lineage of an important popular musical art and acquire the tools to identify and compare various historical styles. (Spring Semester)

## **MUSI 135 - Keyboard Skills I**

Credit(s): 1

This course focuses on functional keyboard skills such as scales, sight reading, harmonization, transposition, and literature. A working understanding of musical notation is needed in order to succeed in this course. Intended to be taken concurrently with Music Theory and Aural Perception, but open to interested non-majors with a musical background. (Fall Semester)

## **MUSI 136 - Keyboard Skills II**

Credit(s): 1

*Prerequisite(s):* MUSI 135.

This course, a continuation of MUSI 135, focuses on functional keyboard skills such as scales, sight reading, harmonization, transposition, and literature. Intended to be taken concurrently with Music Theory and Aural Perception, but open to interested non-majors with a musical background. (Spring Semester)

**MUSI 140 - Aural Perception I**

Credit(s): 2

This course builds aural skills through the use of singing and dictation to supplement MUSI 105F. (Fall Semester)

**MUSI 141 - Aural Perception II**

Credit(s): 2

*Prerequisite(s):* MUSI 140.

This course, a continuation of MUSI 140, builds aural skills through the use of singing and dictation to supplement MUSI 106F. (Spring Semester)

**MUSI 147 - Choral Ensemble: FVCC**

Credit(s): 1

This course will cover the classical choral ensemble literature and includes performing in small choral ensembles. This course may be repeated for a total of four credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

**MUSI 148 - Ensemble: Strings**

Credit(s): 1

*Prerequisite(s):* advisor or instructor's consent.

An ensemble that prepares and performs orchestral and/or ensemble literature of the past and present and requires rehearsals and public performances. Students must supply their own musical instruments. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

**MUSI 148 - Ensemble: Vocal Jazz**

Credit(s): 1

A vocal ensemble that prepares and performs vocal jazz literature of the past and present and requires rehearsals and public performances. Prior singing experience and note reading is helpful but not required. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

**MUSI 150 - Beginning Voice**

Credit(s): 1

Private instruction for voice, covering basic singing technique: tone production, interpretation, introduction to song literature, and solo and ensemble performance. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

**MUSI 160 - Beginning Guitar**

Credit(s): 3

Basic guitar techniques and fundamentals of music for the beginner. Chords and playing techniques needed to accompany singing or other instruments and sufficient theory for understanding the scales and chords. Particularly useful for K-9 teachers. Not necessary to read music in order to take this course. (Fall and Spring Semesters)

**MUSI 195 - Applied Music I**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Students currently taking private music lessons (for example brass, guitar, piano, violin, voice) may be able to earn college credit. This course may be repeated for a total of four credits per instrument. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**MUSI 195 - Applied Music I: Bass**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Students currently taking private music lessons in bass may be able to earn college credit. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**MUSI 195 - Applied Music I: Brass**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Students currently taking private music lessons in brass may be able to earn college credit. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**MUSI 195 - Applied Music I: Guitar**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Students currently taking private music lessons in guitar may be able to earn college credit. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**MUSI 195 - Applied Music I: Percussion**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Students currently taking private music lessons in percussion may be able to earn college credit. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**MUSI 195 - Applied Music I: Piano**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Students currently taking private music lessons in piano may be able to earn college credit. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

# Course Descriptions

2015-2016

## **MUSI 195 - Applied Music I: Strings**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Students currently taking private music lessons in strings may be able to earn college credit. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

## **MUSI 195 - Applied Music I: Woodwind**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Students currently taking private music lessons in woodwinds may be able to earn college credit. This course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

## **MUSI 205 - Music Theory III**

Credit(s): 3

*Prerequisite(s):* MUSI 106F.

*Corequisite(s):* MUSI 240.

This course is a continuation of MUSI 106F, which teaches the fundamentals of music theory (meter, note values, rests, intervals, major scales, circle of fifths, chord construction, minor scales, basic harmonic progression, whole-tone scales and modes). This course focuses on the harmonic language of the Romantic era, including jazz and 18<sup>th</sup> century counterpoint. An introduction to music notation for computer is included. (Fall Semester)

## **MUSI 206 - Music Theory IV**

Credit(s): 3

*Prerequisite(s):* MUSI 205.

*Corequisite(s):* MUSI 241.

This course is a continuation of MUSI 205, which teaches the fundamentals of music theory (meter, note values, rests, intervals, major scales, circle of fifths, chord construction, minor scales, basic harmonic progression, whole-tone scales and modes). This course focuses on the harmonic language of the Romantic era, including jazz and 18<sup>th</sup> century counterpoint. An introduction to music notation for computer is included. (Spring Semester)

## **MUSI 207FG - World Music**

Credit(s): 3

This course surveys the diversity of music among the world's peoples. Music systems, instruments and artists representing various indigenous peoples over seven continents are examined through cultural, social, religious, ceremonial, and performance traditions. Students will be introduced to universal musical elements and techniques for active listening. (Spring Semester)

## **MUSI 208 - Musical Theatre History and Literature**

Credit(s): 3

This course examines the history and masterworks of Musical Theatre, beginning with its roots in European opera, but focusing on musicals of the United States. Students do not have to read music in order to be successful in this course. (Spring Semester)

## **MUSI 212 - Choir II: Glacier Symphony**

Credit(s): 1

*Prerequisite(s):* instructor's consent.

Students may receive college credit for participating in Glacier Symphony/Chorale. The Symphony prepares and performs orchestral literature of the past and present and requires intensive rehearsal and public performances. To qualify, students must audition and supply their own musical instrument. This course may be repeated for a total of three credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

## **MUSI 230 - Intermediate Keyboard Skill: Repertoire**

Credit(s): 1

*Prerequisite(s):* MUSI 136 or equivalent.

This course, a continuation of MUSI 136, focuses on functional keyboard skills such as scales, sight reading, harmonization, and transposition, but has an added emphasis on solo literature. (Fall Semester)

## **MUSI 231 - Intermediate Keyboard Skill: Accompanying**

Credit(s): 1

*Prerequisite(s):* MUSI 230 or equivalent.

This course, a continuation of MUSI 230, focuses on functional keyboard skills such as scales, sight reading, harmonization, transposition, and literature, but has an added emphasis on open score reading (SATB), ensemble literature, and accompanying at an intermediate level. (Spring Semester)

## **MUSI 240 - Aural Perception III**

Credit(s): 2

*Prerequisite(s):* MUSI 141.

This course builds aural and vocal skills through the use of singing and dictation to supplement MUSI 205. (Fall Semester)

## **MUSI 241 - Aural Perception IV**

Credit(s): 2

*Prerequisite(s):* MUSI 240.

This course builds aural and vocal skills through the use of singing and dictation to supplement MUSI 206. (Spring Semester)

## **MUSI 260 - Intermediate Guitar**

Credit(s): 3

*Prerequisite(s):* MUSI 160 or instructor's consent.

This course is a continuation of MUSI 160 for students wanting additional instruction. Students will learn a greater understanding of music theory, note reading, advanced playing techniques, and chords. (Spring Semester)



**Music Technology (MUST)****MUST 115 - Introduction to Digital Music**

Credit(s): 3

*Prerequisite or Corequisite:* MUSI 105F and MUSI 140.

This course covers concepts and terms, an introduction to the music industry, tools for building self-directed careers within the changing field of music technology, and exploring the past, present, and future of how technology has influenced the way we create and share music. This course also includes a section dedicated to the way we consume music, from written published music performed within the home to modern day streaming and subscription-based music services. (Fall Semester)

**Native American Studies (NASX)****NASX 105G - Introduction to Native American Studies**

Credit(s): 3

*Prerequisite(s):* ANTY 101A or ANTY 220G is recommended.

The traditional cultures of North America: the origin and distribution of native populations, their life ways prior to European contact, and the consequences of contact between Indians and non-Indians in North America after 1492 are explored. (Spring Semester)

**NASX 232G - Montana Indians: Cultures, Histories, Current Issues**

Credit(s): 3

The traditional cultures of Indian nations associated with Montana; their lifestyles prior to European contact; Montana reservations and tribal governments; and current issues facing Montana's Indian people are explored. (Intermittently)

**Nondestructive Testing and Evaluation (NDTE)****NDTE 110 - Introduction to Nondestructive Testing**

Credit(s): 3

This course is an introduction to nondestructive weld inspection, theory and practices. All six processes will be introduced, liquid penetrate, magnetic particle, eddy current, ultrasonic, radiographic, with visual inspection and AWS, ASME, and ASNT codes and standards being emphasized. (All Semesters)

**NDTE 111 - Liquid Penetrant and Magnetic Particle Testing**

Credit(s): 3

*Prerequisite(s):* WLDG 111

This course is a theoretical study and practical application of the nondestructive testing techniques of liquid penetrate and magnetic particle testing. Emphasis will be placed on proper testing techniques and interpretation of test results. (All Semesters)

**NDTE 113 - Ultrasonic Testing I**

Credit(s): 3

*Corequisite(s):* WLDG 111

Students will study the basic theory and application of basic Level I Ultrasonic examination. This course will allow the appropriate instruction both in theory and practical training in order to successfully prepare the students for Level II Ultrasonic examination. Training follows ASNT (ANSI/ASNT CP-105-2011) Topical Outlines for Qualification of Non-Destructive Testing Personnel. (Fall and Spring Semesters)

**NDTE 114 - Ultrasonic Testing II**

Credit(s): 3

*Prerequisite(s):* NDTE 113

Students will complete a thorough review of Ultrasonic techniques and evaluation of base material product forms. Pre, Post and actual weldment inspection will be covered in this course. Evaluation of bonded structures will be covered at a minimum. Base material and welded joint discontinuity detection will be covered along with evaluation per given Code or Specification. (Spring Semester)

**NDTE 115 - Eddy Current Testing**

Credit(s): 3

This course is a general study of eddy current testing principles including the theory and practical hands-on skills for testing metals. Students will familiarize with and employ various probe types, on various material properties. Emphasis will be placed on the selection of proper calibration standards and equipment. (All Semesters)

**NDTE 121 - Radiographic Testing I**

Credit(s): 2

Students will study the basic theory and applications of basic Level I radiographic examinations. This course will present the appropriate instruction in both theory and practical training to prepare the student for the Level I radiographic examination. Training follows ASNT (ANSI/ASNT CP-105-2011) Topical Outlines for Qualification of Nondestructive Testing Personnel. (Fall Semester)

**NDTE 122 - Radiographic Testing II**

Credit(s): 3

*Prerequisite(s):* NDTE 121

This course is a study of radiographic testing and interpretation of both digital and film processing techniques. Students are instructed in radiation safety, regulations, and the characteristics of x-ray and gamma radiation. Students apply interpretation techniques on various lab samples to determine the cause and effects of discontinuities in welding samples and other materials. This course provides the appropriate instruction in both theory and practical training to prepare the student for the Level II radiographic examination. (Spring Semester)

**NDTE 125 - AWS D1.1 Code Book**

Credit(s): 2

*Prerequisite(s):* WLDG 111

This course is a study of the American Structural Welding Society D1.1 Structural Welding Code-Steel book's standards and evaluation procedures. Students will learn to interpret code requirements for AWS welding procedures, evaluations, and certification requirements. (All Semesters)

## Nursing (NRSB)

### **NRSB 100 - Introduction to Nursing**

Credit(s): 1

*Prerequisite(s):* appropriate placement test score or WRIT 095~.

*Corequisite(s):* WRIT 101W.

This course socializes the student to the roles/functions/expectations of the nurse. This course provides an introduction to nursing history and current views of nursing as discipline (including various types of nursing occupations and educational requirements). Scholastic expectations required to complete a program of study in nursing are introduced as well as professional expectations of the practicing nurse. The following core concepts related to nursing practice are presented: the caring nature of the nursing profession; the importance of critical thinking/ clinical judgment; legal/ethical/cultural issues in nursing; the need to understand human motivation and behavior; and use of the nursing process. (Fall and Spring Semesters)

### **NRSB 106 - Nursing Assistant Course**

Credit(s): 5

*Prerequisite(s):* successful completion of a background check from an approved vendor, completion of required immunizations, ability to lift 25 pounds, and nursing department consent.

This course covers concepts and practices in basic skills for CNA, including basic medical terminology, basic human anatomy and physiology, and the aging process. Students will gain understanding and application of the skills required to address the needs of the chronically ill residents in long-term care facilities. State of Montana CNA testing administered at the end of course. (All Semesters)

### **NRSB 130 - Fundamentals of Nursing**

Credit(s): 7

*Prerequisite(s):* BIOH 201NL, BIOH 211NL, CHMY 121NL; M 115M, M 121M, M 152M, M 153M or M 171M, NRSB 100, NUTR 221N, PSYX 100A, and WRIT 101W.

*Corequisite(s):* NRSB 135, NRSB 138, and NRSB 144.

Introduces learners to the clinical skills essential for the nursing role. Also includes complex concepts and behaviors of nursing roles within the context of the nursing process, holistic care and health care. Emphasizes the theoretical practical concepts of nursing skills required to meet the needs of clients in a variety of settings. (Fall Semester)

### **NRSB 135 - Nursing Pharmacology**

Credit(s): 3

*Prerequisite(s):* BIOH 201NL, BIOH 211NL, CHMY 121NL; M 115M, M 121M, M 152M, M 153M or M 171M; NRSB 100, NUTR 221N, PSYX 100A, and WRIT 101W; acceptance into the PN program.

*Corequisite(s):* NRSB 130, NRSB 138, and NRSB 144.

Through caring, communication, professionalism, critical thinking, and clinical judgment, students learn a structured systematic approach to the study of drug therapy. Medications are studied according to drug classes and therapeutic families. Students will learn to apply the nursing process to drug therapy with an emphasis on accessing relevant information to ensure client safety. (Fall Semester)

### **NRSB 138 - Gerontology for Nursing**

Credit(s): 2

*Prerequisite(s):* BIOH 201NL; BIOH 211NL; CHMY 121NL; M 115M, M 121M, M 152M, M 153M or M 171M; NUTR 221N, PSYX 100A, and WRIT 101W; acceptance into the PN program.  
*Corequisite(s):* NRSB 130, NRSB 135, and NRSB 144.

This course introduces the student to the skills and knowledge needed to provide nursing care to aging clients. Topics explored include current trends (including legal and ethical issues) in gerontological nursing, developmental stages and transitions associated with aging, expected age related physiological changes and assessment findings, recognition and management of acute and chronic illnesses that commonly occur in the older adult population, promotion of health for the older adult client, end-of-life issues and care. (Fall Semester)

### **NRSB 140 - Core Concepts of Adult Nursing**

Credit(s): 7

*Prerequisite(s):* NRSB 130, NRSB 135, NRSB 138, NRSB 144.

*Corequisite(s):* NRSB 142, NRSB 148.

This course prepares the student to care for clients experiencing common, well-defined health alterations in settings where stable clients are anticipated. Students are introduced to standardized nursing procedures and customary nursing and collaborative therapeutic modalities. The following body systems are addressed: neurological, cardiac, respiratory, renal/urological, gastrointestinal, musculoskeletal, endocrine, reproductive, integumentary, sensory, and homological. The topics of perioperative care, pain, infection/immunity and cancer are addressed. Additionally, recognition and emergent treatment of rapidly changing conditions are introduced. (Spring Semester)

### **NRSB 142 - Core Concepts of Maternal Child Nursing**

Credit(s): 3

*Prerequisite(s):* NRSB 130, NRSB 135, NRSB 138, NRSB 144.

*Corequisite(s):* NRSB 140, NRSB 148.

Emphasizing caring, communication, professionalism, and critical thinking, the course provides information about fetal development and prenatal and postnatal care of the mother and newborn. Role of the nurse in meeting the needs of the family is emphasized. Clinical application of caring for the mother and newborn allows the student to demonstrate acquired knowledge. The course also includes growth and development patterns as well as care of the well and sick child. (Spring Semester)

### **NRSB 144 - Core Concepts of Mental Health Nursing**

Credit(s): 2

*Prerequisite(s):* BIOH 201NL, BIOH 211NL, CHMY 121NL; M 115M, M 121M, M 152M, M 153M or M 171M; NRSB 100, NUTR 221N, PSYX 100A, and WRIT 101W.

*Corequisite(s):* NRSB 130, NRSB 135, and NRSB 138.

This course explores physiological, psychological, sociocultural, spiritual, and environmental factors associated with mental health/illness affecting individuals and families throughout the life span. Focus is placed on basic concepts of psychiatric nursing, therapeutic modalities, as well as psychiatric disorders including psychotherapeutic drug management. (Fall Semester)

**NRSG 148 - Leadership Issues**

Credit(s): 2

*Prerequisite(s):* NRSG 130, NRSG 135, NRSG 138, and NRSG 144.*Corequisite(s):* NRSG 140, NRSG 142.

This capstone course provides the practical nursing student information regarding the current status of vocational nursing. This course assists the nursing student to bridge the role between student and employee. Leadership/management skills, health care delivery systems, continuing educational needs, licensure requirements, legal issues, and standards of practice are investigated. Personal and professional identity and entry into the job market are explored. There is a 45 hour clinical/precepted component to provide the student opportunity to apply theoretical knowledge in the long-term care setting. (Spring Semester)

**NRSG 250 - LPN to RN Transition**

Credit(s): 3

*Prerequisite(s):* current Montana LPN license or eligible to take NCLEX-PN exam for licensure.

This course assists students in the transition from LPN to the RN role. Includes components of lifelong learning, adapting to change, critical thinking, nursing process, legal and ethical issues, mathematics for meds, IV therapy, APA format, and skill review to socialize the student into associate degree nursing. (Fall and Spring Semesters)

**NRSG 252 - Complex Care Maternal/ Child Client**

Credit(s): 3

*Prerequisite(s):* acceptance into the FVCC ASN program, Montana LPN License; BIOH 201NL, BIOH 211NL, CHMY 121NL; M 115M, M 121M, M 152M, M 153M, or M 171M; NRSG 250, NUTR 221N, PSYX 100A and WRIT 101W if did not take with practical nurse program.*Corequisite(s):* BIOM 250NL, NRSG 254, NRSG 258N.

This course prepares the student to provide care to maternal/child clients experiencing acutely changing conditions in settings where outcome is less predictable. Topics include care of the client during childbirth, high-risk pregnancies, obstetrical emergencies, neonatal emergencies, and infants and children requiring complex collaborative care. (Spring and Summer Semesters)

**NRSG 254 - Complex Care/Mental Health Client**

Credit(s): 2

*Prerequisite(s):* acceptance into the FVCC ASN program; Montana LPN License; BIOH 201NL, BIOH 211NL, CHMY 121NL; M 115M, M 121M, M 152M, M 153M, or M 171M; NRSG 250, NUTR 221N, PSYX 100A and WRIT 101W if did not take with practical nurse program.*Corequisite(s):* BIOM 250NL, NRSG 252, NRSG 258N.

This course will explore physiological, psychological, sociocultural, spiritual and environmental factors associated with mental health/illness. Focus will be placed on psychotherapeutic management in the continuum of care, milieu management and special populations with emphasis on individuals, families, and communities. (Spring and Summer Semesters)

**NRSG 258N - Principles of Pathophysiology**

Credit(s): 4

*Prerequisite(s):* BIOH 201NL.*Corequisite(s):* BIOH 211NL.

This course reviews normal, homeostatic functioning of the body, examines how alterations in structure and function disrupt homeostasis, and how the body responds to the disease process. (Fall and Spring Semesters)

**NRSG 262 - Complex Care Needs - Adult Client**

Credit(s): 4

*Prerequisite(s):* NRSG 250, NRSG 252, NRSG 254, NRSG 258N and BIOM 250NL.*Corequisite(s):* NRSG 265, NRSG 266, SOCI 101A.

This course prepares the student to provide nursing care to adult clients experiencing acutely changing conditions in settings where outcome is less predictable. Emphasis is placed on the nurse's response to emergent/life-threatening/rapidly changing conditions. Topics covered include collaborative therapeutic modalities related to acute/complex neurological, cardiac, respiratory, hematological, endocrinologic events, shock, sepsis/SIRS, complex burns, etc. (Fall and Summer Semesters)

**NRSG 265 - Advanced Clinical Skills Lab**

Credit(s): 1

*Prerequisite(s):* BIOM 250NL, NRSG 250, NRSG 252, NRSG 254, NRSG 258N.*Corequisite(s):* NRSG 262, NRSG 266, SOCI 101A.

This course prepares the student to carry out complex nursing interventions. Topics covered include central venous therapy, parenteral nutrition, hemodynamic monitoring, advance airway/ventilatory support, intracranial pressure monitoring, IV medication administration, high risk IV infusions, blood/blood product administration, conscious sedation, advanced wound care, etc. (Fall and Summer Semesters)

**NRSG 266 - Managed Client Care**

Credit(s): 4

*Prerequisite(s):* BIOM 250NL, NRSG 250, NRSG 252, NRSG 254, NRSG 258N.*Corequisite(s):* NRSG 262, NRSG 265, SOCI 101A.

This course covers topics related to integrated nursing care of individual clients and groups of clients as well as basic principles related to supervision of nursing practice and management of resources. Topics include role differentiation among care providers, organization and prioritization, delegation, supervision and appropriate practice/practice setting; management of the needs of individual and groups of clients, management of health care resources. Additionally, the course helps the student integrate didactic content from all other nursing courses and will help the student in her or his transition from the student role to the role of the Registered Nurse. Students examine legal/ethical issues in nursing, values clarification, conflict resolution and consensus building and effective communication techniques in the employment setting. Licensure exam (NCLEX-RN) preparation and process are also included as a component of the course. The preceptor-based clinical component allows the student to function in the role of a registered nurse while working one-to-one with a designated RN preceptor. (Fall and Summer Semesters)

# Course Descriptions

2015-2016

## Natural Resources Science and Management (NRSM)

### **NRSM 101 - Natural Resource Conservation**

Credit(s): 3

This introductory natural resource course examines the difference between renewable and non-renewable resources with emphasis placed on understanding renewable resource conservation and management. Also explored are ecological principles behind soil, water, air, forest, rangeland, and wildlife conservation and management in a sustainable manner. Required for all first-year NR students. (Fall Semester)

### **NRSM 161 - Natural Resource Measurements I**

Credit(s): 5

This is an introductory course in the techniques of resource measurements, species identification, compilation of field data and the application of normal statistics sampling procedures to representative resource situations. (Fall Semester)

### **NRSM 271GN - Conservation Ecology**

Credit(s): 3

A holistic study of natural resource issues with emphasis on global forested ecosystems and human impacts. Topics include: global climate change, deforestation, indigenous cultures, soil erosion, water quality, urban interface, grazing, noxious weeds, wildfire management, game management, threatened and endangered species; including grizzly bears, lynx, wolves, bird and fish species. Non-natural resource majors are encouraged to take this course. (Spring Semester)

## Nutrition (NUTR)

### **NUTR 221N - Basic Human Nutrition**

Credit(s): 3

This course relates nutritional needs during different stages of the life cycle. Basic concepts of human nutrition including carbohydrates, lipids, proteins, vitamins, minerals, absorption, digestions, metabolism, and energy utilization and how they relate to health and food consumption are covered. (All Semesters)

## Pharmacy (PHAR)

### **PHAR 198 - Internship: Hospital and Community Pharmacy Practice**

Credit(s): 7

*Prerequisite(s):* acceptance into the Pharmacy Technology program.

*Corequisite(s):* (if not previously completed with a "C" or better) AH 117, AHMS 144, BIOH 104N, CHMY 160.

This course provides training and on-the-job experience in a variety of hospital and community pharmacies under the supervision of professional pharmacists. Emphasis is placed on practical experience in effective communication, outpatient and inpatient dispensing, unit-dose systems, IV admixture systems, bulk and sterile compounding, and purchasing and inventory control. (Fall Semester)

## Philosophy (PHL)

### **PHL 101H - Introduction to Philosophy: Reason and Reality**

Credit(s): 3

This course is an examination of current topics such as pornography and censorship, the criminal justice system and theories of punishment, free will and determinism, the existence of God, faith and reason, critique and defense of democracy, various ethical theories and other topics, in relation to the classical concerns of philosophy. (Fall Semester)

### **PHL 110H - Introduction to Ethics: Problems of Good and Evil**

Credit(s): 3

This course is an examination of moral decision making and behavior, primarily within the western tradition. Students will critically examine various theories of both personal and societal ethics from the classical period until present day. Readings from Plato, Aristotle, St. Augustine, Kant, and Mill, as well as from numerous contemporary philosophers on such issues as good and evil, free will and determinism, ethical relativism, and egoism; courage, wisdom, compassion, and self-respect; hypocrisy, self-deception, jealousy and lying; birth control, abortion, euthanasia, racism and sexism. (Spring Semester)

### **PHL 132 - Introduction to Critical Thinking**

Credit(s): 3

Students taking this course will gain knowledge and application skills in critical thinking. Specific topics include examining what critical thinking is, informal fallacies, problem solving, and logical analysis. Students will learn to analyze information from a wide range of contexts and reach well-reasoned conclusions. (Fall Semester)

## Photography (PHOT)

### **PHOT 113F - Understanding Photography**

Credit(s): 3

This course is an introduction to basic photographic theory and visual principles, including camera operation, film and digital and use of black and white darkroom. (Fall Semester)

### **PHOT 116F - Intermediate Black and White Photography**

Credit(s): 3

*Prerequisite(s):* PHOT 113F.

This course involves theory and continued application of image control in black and white photography through the use of a variety of 35mm films and digital media. It will include advanced traditional black and white in preparation for portfolio review. (Spring Semester)



## 2015-2016

## Course Descriptions

### **PHOT 154F - Exploring Digital Photography**

Credit(s): 3

*Prerequisite(s):* CAPP 106 or instructor's consent.

A beginning course about digital photography and the digital darkroom. Students learn about capturing technology of digital cameras and scanners, digital shooting techniques and computer transfer technology of monitors, printers and graphic programs. A photographic project is included. Students must have access to a digital camera, scanner, printer and associated software. Students must provide their own photo-quality paper. (All Semesters)

### **PHOT 156 - Elements of Photoshop for Photographers**

Credit(s): 3

*Prerequisite(s):* CAPP 106 or instructor's consent.

The student will manipulate continuous-tone (photographic) digital images captured by digital cameras or scanners for desktop, press and offset printing. Topics include color correction fundamentals, image retouching and creative effects, as well as production standards of the press and offset printing industries. The latest versions of Adobe Photoshop and/or Adobe Photoshop Elements will be used. This course is designed for aspiring and professional photographers and print designers. (All Semesters)

### **PHOT 160 - Digital Darkroom**

Credit(s): 3

This course teaches students to simplify the photography process from shoot to finish. The student will use Lightroom to learn to manage this digital workflow, while complementing Adobe Photoshop software. Lightroom will be used to import, manage, and adjust one image or large volumes of digital photographs. This course will introduce students to the tools and techniques used by the professionals in the photography field. Includes image capture, manipulation, and output. Students will learn the hardware and software used by today's creative professionals in a combination of lectures, demonstrations, and class projects. This course is intended for dedicated photography students. (All Semesters)

### **PHOT 213F - Intermediate Photography**

Credit(s): 3

*Prerequisite(s):* PHOT 116F, PHOT 255F.

This course is an introduction to large format photography theory and practice. Basic studio and lighting techniques, advanced contrast control through the zone system and exploring digital technologies will be studied. Students will complete a portfolio and presentation of high quality prints for exhibition with a strong emphasis on the art of photography. (Spring Semester)

### **PHOT 254F - Intermediate Digital Photography**

Credit(s): 3

*Prerequisite(s):* PHOT 154F.

This course gives students advanced instruction in specialized digital photography areas: shooting at night, using flash and related tools, shooting portraiture, macro-photographing, indoor shooting and printing. Basic computer skills are required. Students must have access to a digital camera, printer, and associated software. Students must provide their own photo-quality paper. (All Semesters)

### **PHOT 255F - Introduction to Color Photography**

Credit(s): 3

*Prerequisite(s):* a grade of "B-" or better in PHOT 116F.

This course is an introduction and analysis of color theory, color imagery and color materials. Exploration of image capture via film, scanning, and digital cameras will be covered. Technical skills are developed in digital systems, applications, and printing. It will also include critical exploration of color, visual language, and aesthetic issues. (Fall Semester)

### **PHOT 260 - Digital Darkroom II**

Credit(s): 3

*Prerequisite(s):* PHOT 160.

This course will expand on the knowledge gained from PHOT 160, Digital Darkroom. Students will gain expertise and confidence in their abilities. Students are encouraged to explore their digital photographic vision or voice. Skills in the entire photography process will be enhanced. Emphasis will be on the professional presentation of digital photographs, leveraging the student's knowledge and skill with Lightroom and Adobe Photoshop. This course may be repeated for a total of twelve credits. Students receiving financial aid or Veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

## **Physics (PHSX)**

### **PHSX 110 - Applied Physics**

Credit(s): 4

*Prerequisite(s):* M 114, M 123 or other trigonometry course.

This course covers the primary topics in physics. Using methods of algebra, trigonometry and vectors, it is the mathematical study of mechanics, rotational motion, satellite motion, coordinate systems for orbital motion, electricity and magnetism, DC circuits, AC circuits, geometric optics, and wave optics. (Spring Semester)

### **PHSX 126NL - General Science: Physical Science**

Formerly: NSCI 103NL Basic Physical Science

Credit(s): 5

*Prerequisite(s):* M 090--.

This course explores the basic principles of physics, chemistry, and the properties of matter. Material is presented in the context of observable, everyday phenomena emphasizing concepts rather than theory. (Spring Semester)

### **PHSX 205NL - College Physics I**

Credit(s): 5

*Prerequisite(s):* M 153M or equivalent and high school trigonometry.

This is the first semester of a two-semester sequence for students who need physics to support work in other fields. It may not be used as a prerequisite for advanced work in physics. The mathematical study, using algebraic, trigonometric, and vector methods of Newtonian mechanics of solids and fluids including forces, motion both linear and rotational, equilibrium, work and energy, momentum, conservation laws, kinetic theory and thermodynamics, and vibrational and wave motion. Laboratory work is included. (Fall Semester)



# Course Descriptions

2015-2016

## **PHSX 207NL - College Physics II**

Credit(s): 5

*Prerequisite(s):* PHSX 205NL.

This is the second semester of a two-semester sequence for students who need physics to support work in other fields. It may not be used as a prerequisite for advanced work in physics. The mathematical study, using algebraic, trigonometric, and vector methods, of electricity and magnetism including forces, fields, and energy; induction; and AC and DC circuits; light, geometric and wave optics and optical devices; and selected topics from modern physics including special relativity, atomic physics, and nuclear and quantum physics applications. Laboratory work is included. (Spring Semester)

## **PHSX 220NL - Physics I (with Calculus)**

Credit(s): 5

*Prerequisite(s):* M 153M or high school trigonometry.

*Corequisite(s):* M 171M.

First course in a three-semester sequence in general physics. Topics in mechanics (linear and rotational motion, energy and momentum, conservation principles), waves (simple harmonic motion, mechanical waves, superposition, sound), and heat (the laws of thermodynamics and the kinetic theory of gas). Laboratory work included. (Fall Semester)

## **PHSX 222NL - Physics II (with Calculus)**

Credit(s): 5

*Prerequisite(s):* PHSX 220NL.

*Corequisite(s):* M 172M.

This second course in general physics covers electricity and magnetism (electric forces and fields, electric potential, AC and DC circuits, magnetic forces, torques and fields, Maxwell's equations) and optics (geometrical and wave optics). Laboratory work included. (Spring Semester)

## **PHSX 224 - Physics III**

Credit(s): 4

*Prerequisite(s):* PHSX 222NL.

This third course in general physics covers waves and optics (further enhance the topics of the first two semesters) and modern physics (relativity, models of the atom, quantum mechanics, nuclear physics and particle physics). Laboratory work included. (Fall Semester)

## **PHSX 290 - Undergraduate Research**

Credit(s): 1-3

*Prerequisite(s):* instructor's consent.

Undergraduate research under the supervision of a full-time faculty member. This course may be repeated for a total of 12 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

## **Political Science (PSCI)**

### **PSCI 210B - Introduction to American Government**

Credit(s): 3

Students will explore the nature, purpose, and forms of the American government; relationship between function and structure; dynamics of political change; governmental problems of modern society; emphasis upon constitutional principles, political processes, public opinion, interest groups, political parties, elections, congress, the Presidency, and the Courts. (All Semesters)

### **PSCI 230 - Introduction to International Relations**

Credit(s): 3

This course reviews the evolution of the nation-state system and survey of contemporary international actors, issues, and forces for stability and change. (Fall Semester)

### **PSCI 250B - Introduction to Political Theory**

Credit(s): 3

This course analyzes the various attempts (from Plato to Marx) to explain, instruct, and justify the distribution of political power in society. Emphasis is placed upon those theories whose primary concern is to define the nature of the ethical "good" society. (Spring Semester)

## **Public Safety Dispatch (PSD)**

### **PSD 100 - Introduction to 911**

Credit(s): 2

This course is an introduction into the various aspects of a 911 system and the role of the public safety dispatcher. Topics covered include the history and evolution of the 911 system, identification and managing work related stress, and an overview of the dynamics of employment as a public safety dispatcher. (Fall Semester)

### **PSD 110 - Call Taking/Emergency Medical Dispatch**

Credit(s): 3

This course will be an in depth discussion of how to answer 911 (emergency) as well as non-emergency calls. Topics covered include the basics of call taking for public safety issues, emergency medical instructions, officer safety, call types and dispatcher liability. (Fall Semester)

### **PSD 120 - Public Safety Dispatching**

Credit(s): 3

This course will provide the student with a basic understanding of dispatching specific to law enforcement, fire, and EMS calls for assistance. Students will receive instruction appropriate for understanding all phases in the responsibilities for each of these specific types of agencies. Topics covered include specific channels utilized by each of the three types of services, procedures, listening skills, data entry into the Computer-Aided Dispatch (CAD) system, as well as the basics of entering information into CJIN and NCIC. (Fall Semester)

## 2015-2016

### **PSD 195 - Dispatch Field Experience**

Credit(s): 1

This course provides the student with the opportunity to take the academic knowledge gained through coursework in emergency dispatching and apply it in a 911 center. Students will rotate through all the positions in the 911 center including call taking, law, fire and EMS dispatch. The student will listen to calls along with the on-duty dispatcher and observe the processes utilized in appropriate dispatch of resources. (Fall Semester)

### **Psychology (PSYX)**

#### **PSYX 100A - Introduction to Psychology**

Credit(s): 4

This course is a scientific study of behavior in human and sub-human species. Topics include learning and memory, intelligence, emotion, motivation, conflict and stress, abnormal behavior, therapies, altered states of awareness and others. (All Semesters)

#### **PSYX 150 - Drugs and Society**

Credit(s): 3

This course is a study of substance use and abuse in society, relative to controlled substances in general, and to specific classes of drugs as well. Personal and societal attitudes and responses toward the drug phenomenon are explored. (Fall and Spring Semesters)

#### **PSYX 230A - Developmental Psychology**

Credit(s): 3

*Prerequisite(s):* PSYX 100A.

This course is an examination of the stages of normal development with the intent to provide a broad, comprehensive background in the study of human development from conception through the end of life. The basic theme will focus on what can be done to facilitate the development of more fully functioning individuals at each particular stage of life and how culture and ethnicity influence development over the life span. (Fall and Spring Semesters)

#### **PSYX 233 - Fundamentals of Psychology of Aging**

Credit(s): 3

This course presents current research on neuroscience and physiology of aging; explores factors that influence health and have implications for preventive measures in disease and health disorders in the aging; examines nature of health problems and methods of assessing physical, cognitive, and psychological need; and explores aging effects on client and caregiver. (Fall Semester)

#### **PSYX 240A - Fundamentals of Abnormal Psychology**

Credit(s): 3

*Prerequisite(s):* PSYX 100A.

This course is an introduction to the scientific study of abnormal behavior to try to describe, predict and explain psychopathology. Topics will include classification schemes, the major disorders, and appropriate therapies. (Fall and Spring Semesters)

## Course Descriptions

### **PSYX 250NA - Fundamentals of Biological Psychology**

Credit(s): 3

*Prerequisite(s):* PSYX 100A.

This course is an exploration of the basic neural mechanisms underlying behavior, including topics such as the neuron, the impulse, the synapse, the central and peripheral nervous systems, psychoactive drugs, reproduction, emotion, learning and memory, communication, and neurological and psychiatric disorders. (Fall and Spring Semesters)

### **PSYX 260A - Fundamentals of Social Psychology**

Credit(s): 3

*Prerequisite(s):* PSYX 100A.

The study of human behaviors as social beings, and how social situations affect individual behavior is the basis of this course. Topics include aggression, prejudice, conformity, communications, and a variety of social experiences. (Fall and Spring Semesters)

### **PSYX 264 - Fundamentals of Group Dynamics**

Credit(s): 3

*Prerequisite(s):* HS 100A or PSYX 100A.

This course is an introduction to the function of groups in society; group dynamics as a helping process and a means of giving and receiving information. Problem solving within the group setting will be highlighted. (Spring Semester)

### **PSYX 275 - Fundamentals of Behavior Modification**

Credit(s): 3

*Prerequisite(s):* PSYX 100A.

This course is an in-depth study of behavior modification from the viewpoint of the program developer, writer, implementer, recorder, and evaluator including correct identification of behavior modification terms. Beginning with identification of the behavior to be changed, the entire process of behavior modification through the implementation of a programmed intervention will be examined and practiced. (Intermittently)

### **Parks, Tourism, and Recreation Management (PTRM)**

#### **PTRM 201 - Recreation Management**

Credit(s): 2

This course will introduce students to the many recreational uses on public and private lands. The focus will be recreational management of multiple-use forestlands, parks, wilderness, and private lands. Students will explore constraints and challenges imposed by multiple uses of land. Historical and current relationships between people, recreation, and natural resources in the United States will be discussed. Recreational survey data will be developed and compiled and then uses and recommendations will be provided. Students also will plan, implement, and manage a recreational event. (Fall Semester)

## Religious Studies (RLST)

### **RLST 100G - Introduction to the Study of Religion**

Credit(s): 3

This course examines religion as a universal aspect of human culture. Through this academic approach to the subject, numerous religious traditions will be studied. Common elements such as symbols, rites, scriptures, language, and mythologies will be examined. (Intermittently)

### **RLST 205 - Introduction to New Testament**

Credit(s): 3

This academic adventure will explore the historical, cultural, political, and religious contexts out of which the Christian church emerged. The historical period which will be examined extends from writing of the Old Testament in Greek (255 Before Common Era [BCE]) to the baptism of Constantine (337 Common Era [CE]). (Spring Semester)

### **RLST 220G - Interpretations of American Religion**

Credit(s): 3

This course is a historical look at the role of religion in American society from 1600 to present. The course will examine the distinctive themes and characteristics of religion in America including the rise of denominationalism, Roman Catholic, Orthodox, and Protestant forms of Christianity, secularism, pluralism, cults, religious diversity, and constitutional understanding of religion. (Intermittently)

## Languages: Russian (RUSS)

### **RUSS 101GH - Elementary Russian I**

Credit(s): 5

This course gives a basic understanding of grammar and sentence structure, with extensive practice in conversation and oral comprehension. Extensive use is made of language tapes by native speakers. (Intermittently)

### **RUSS 102GH - Elementary Russian II**

Credit(s): 5

*Prerequisite(s):* RUSS 101GH.

This course is a continuation of RUSS 101GH. (Intermittently)

## Sustainable Food and Bioenergy Systems (SFBS)

### **SFBS 146 - Introduction to Sustainable Food and Bioenergy Systems**

Credit(s): 3

This course provides an introduction to agricultural sustainability from a systems perspective, with an emphasis in the natural sciences. An array of diverse agricultural systems and practices will be discussed and examined for their relative sustainability. Key topics include food systems, crop production and agroecology. (Fall Semester)

## Languages: Sign (SIGN)

### **SIGN 101G - Introduction to American Sign Language**

Credit(s): 3

Learn to communicate with the deaf using the language most widely employed by the deaf population. This course includes expressive and receptive skills in finger spelling, basic word and phrase sign, facial expression and body language, conceptual signing, and basic deaf culture. (Fall and Spring Semesters)

### **SIGN 201G - Intermediate American Sign Language**

Credit(s): 3

*Prerequisite(s):* SIGN 101G or some knowledge of sign language. Learn to communicate with the deaf, using American Sign Language. Includes finger spelling and conceptual signing, facial expression and body language, and deaf culture. (Spring Semester)

### **SIGN 243G - Advanced American Sign Language**

Credit(s): 3

*Prerequisite(s):* SIGN 101G, SIGN 201G.

This course will take the student further into the world of the deaf by means of cultural experiences, more training with receptive and expressive skills, and skill building for interpreting English into ASL concepts. (Spring Semester-Odd Years)

## Sociology (SOCl)

### **SOCl 101A - Introduction to Sociology**

Credit(s): 3

A course designed to introduce the student to the concepts and terms used in the study of man as a social being, it addresses group life of humans: culture, society, association, institutions, collective behavior, and social interaction. (All Semesters)

### **SOCl 142 - 21st Century Popular Culture**

Credit(s): 3

This course investigates popular culture, its nature, its role in our lives and its broad effects on society and democratic ideals. (Spring Semester)

### **SOCl 201 - Social Problems**

Credit(s): 3

This is an analysis of forces in society which contribute to such modern social problems as war, crime, delinquency, family disorganization, racial and ethnic tensions, suicide, etc. and possible solutions to social problems. (Intermittently)

### **SOCl 215 - Introduction to Sociology of the Family**

Credit(s): 3

*Prerequisite(s):* SOCl 101A.

Contemporary issues and patterns within family life and the influence of larger social trends are studied. The implication of these changes on the state of the family as an institution will be explored. (Intermittently)

## 2015-2016

### **SOCI 220GA - Race, Gender and Class**

Credit(s): 3

Using a variety of sociological perspectives, this course looks at the relationship between race, gender, and class in the United States and around the world. Emphasis is on historical and comparative analysis, distribution of power, conflict and reconciliation, and social change. (Fall and Spring Semesters)

### **SOCI 260 - Introduction to Juvenile Delinquency**

Credit(s): 3

This course explores theories of causation, social function and treatment of juvenile delinquency; specific attention to juvenile court systems and correctional/treatment methods as they relate to deviance prior to adulthood. (Fall Semester)

### **SOCI 271 - Introduction to Family Violence**

Credit(s): 3

The theories which have been advanced to explain various types of family violence and the related research will be studied. The question of how family violence became a social problem and how it has been defined will be the focus of the course. (Intermittently)

### **Languages: Spanish (SPNS)**

#### **SPNS 101GH - Elementary Spanish I**

Credit(s): 5

This course is an introduction to reading, writing, and speaking Spanish. (Fall Semester)

#### **SPNS 102GH - Elementary Spanish II**

Credit(s): 5

*Prerequisite(s):* SPNS 101GH.

This course continues introducing students to reading, writing, and speaking Spanish. (Spring Semester)

### **Surveying (SRVY)**

#### **SRVY 120 - Surveying in Natural Resources**

Credit(s): 2

An introduction to basic land measurements and forest surveying techniques. Exercises include measuring horizontal, vertical, and slope distances; measuring angles and direction, conducting closed traverses, identifying property boundary location and computation and drafting of field data. (Spring Semester)

#### **SRVY 152 - Surveying Graphics**

Credit(s): 2

Instruction and practice in the use of drafting tools, lettering, and line construction. The drafting of surveying related projects such as certificates of survey, topographic maps, easement, and encroachment exhibits. (Fall Semester)

#### **SRVY 233 - Introduction to GIS for Natural Resource Assessment**

Credit(s): 4

Introduction to the basic concepts and techniques of computerized spatial data management and analysis systems with application to natural resource/surveying assessment. (Fall Semester)

## Course Descriptions

### **SRVY 241 - Introduction to Surveying for Land Surveyors I**

Credit(s): 5

*Corequisite(s):* M 095~, M 123.

Instruction and practice in the use of various surveying instruments to determine point locations; measurement of horizontal and vertical angles; chaining and use of EDM; leveling to determine elevations; recording of field notes; statistical analysis of data; use of compass; the relationships between angles and bearings/azimuths. (Fall Semester)

### **SRVY 242 - Introduction to Surveying for Land Surveyors II**

Credit(s): 5

*Prerequisite(s):* SRVY 241.

*Corequisite(s):* SRVY 255.

A continuation of SRVY 241; additional practice in the measurement of horizontal and zenith angles and distances; sources of random and systematic errors associated with traverses; traverse and coordinate geometry computations using hand calculators; area determination of regular and irregular polygons; calculation and staking of horizontal and vertical curves; site/topographic mapping; state plane coordinates. (Spring Semester)

### **SRVY 245 - GPS Mapping**

Credit(s): 2

*Prerequisite(s):* SRVY 233 or SRVY 283.

An introductory course on the fundamentals of the Global Positioning System as it applies to digital mapping and navigation. Instruction and practice in the use of mapping-grade GPS receivers. Analysis of positional accuracy and precision. Course concludes with students selecting and implementing an individual mapping project with final report and class presentation. (Spring Semester)

### **SRVY 246 - Introduction to GPS for Surveyors**

Credit(s): 2

*Prerequisite(s):* SRVY 233 or SRVY 283.

An introductory course on the fundamentals of the Global Positioning System as it applies to digital mapping and navigation. Instruction and practice in the use of mapping-grade GPS receivers. Analysis of positional accuracy and precision. Course concludes with students selecting and implementing an individual mapping project with final report and class presentation. (Spring Semester)

### **SRVY 247 - Survey-grade GPS Control and Analysis**

Credit(s): 3

*Prerequisite(s):* SRVY 270 and SRVY 271 or instructor's consent.

This course is a review of basic Global Positioning System principles, maintenance and adjustment of equipment, instruction and practice in field and office procedures for collecting and processing survey-grade GPS data, student-designed projects with instructor supervision utilizing both fast static and RTK GPS survey techniques to extend a control network, and mast field and office procedures. (Spring Semester)

# Course Descriptions

2015-2016

## **SRVY 255 - Surveying Calculations**

Credit(s): 3

*Prerequisite(s):* SRVY 241.

*Corequisite(s):* SRVY 242.

Use of personal computers and associated software to solve typical surveying problems: traverse calculations; rotation and translation of coordinates; intersection calculations; area cutoff calculations; subdivision and road right-of-way design. (Spring Semester)

## **SRVY 262 - Public Land Survey System**

Credit(s): 3

*Prerequisite(s):* SRVY 241.

A study of the United States Public Land Survey System. Emphasis on the legal principles of boundary location and the retracement of the rectangular survey system. Subdivision of sections. Corner search and remonumentation. Determination of directions using solar observation. (Spring Semester)

## **SRVY 265 - Surveying Laws and Land Division**

Credit(s): 3

*Prerequisite(s):* SRVY 270.

A study of selected state laws and regulations that pertain to the surveying profession; laws that affect the surveying and division of lands in Montana; layout and design of subdivisions. (Spring Semester)

## **SRVY 268 - CAD for Surveying Profession**

Credit(s): 4

*Prerequisite(s):* SRVY 152.

Introduction to the use of AutoCAD to generate drawings associated with the surveying profession such as certificates of survey, plan/profile drawings, and preliminary subdivision plats. Use of DXF files. Digitizing of existing drawings into an Auto-CAD drawing. (Fall Semester)

## **SRVY 270 - Legal Principles in Surveying I**

Credit(s): 5

*Prerequisite(s):* SRVY 242, SRVY 255, SRVY 262.

*Corequisite(s):* SRVY 268.

Legal principles associated with locating boundaries: simultaneously versus sequentially created boundaries; deeds and other legal instruments; easements; research and evidence; use of county courthouse records; law library research with in-class presentation of relevant cases; writing and interpretation of legal descriptions; professional ethics and business practices; retracing/surveying boundaries with total stations; use of data collectors for mapping purposes. (Fall Semester)

## **SRVY 271 - Legal Principles in Surveying II**

Credit(s): 2

*Prerequisite(s):* SRVY 270 or instructor's consent.

*Corequisite(s):* SRVY 247, SRVY 273.

More legal principles associated with locating boundaries: additional writing and interpretation of legal descriptions; riparian boundaries and related topics; adverse possession and prescription; road law; advanced PLSS case studies; emphasis on case law research with written reports and oral presentations; professional ethics and business practices. (Spring Semester)

## **SRVY 273 - Route Surveying**

Credit(s): 2

*Prerequisite(s):* SRVY 270.

*Corequisite(s):* SRVY 247, SRVY 271.

Instruction and practice in basic road design techniques: review of horizontal and vertical curve calculations; spiral curves; P-line staking; earthwork and mass diagram calculations; slope staking. (Spring Semester)

## **SRVY 275 - Analytic Photogrammetry and Remote Sensing**

Credit(s): 3

*Prerequisite(s):* SRVY 233 or SRVY 283.

The theory and application of photo and electro-optical remote sensing for mapping resources and developing information systems. (Spring Semester)

## **SRVY 280 - Land Surveying Computers**

Credit(s): 2

*Prerequisite(s):* SRVY 246.

Computer maintenance procedures typically encountered in a surveying office environment including installation and upgrading of hardware and software. Installation and configuration of plotters, digitizer boards and GPS stations is also covered. (Spring Semester)

## **SRVY 283 - GIS for Survey Analysis**

Credit(s): 4

Introduction to the basic concepts and techniques of computerized spatial data management and analysis systems with application to natural resource/surveying assessment. (Fall Semester)

## **SRVY 290 - Undergraduate Research: Projects in GIS**

Credit(s): 2

*Prerequisite(s):* SRVY 233 or SRVY 283.

Student designed project with staff supervision to extend GIS and remote sensing knowledge and experience. Students will select a project within their field of interest and design/implement a GIS for the project. Some opportunities exist for internships with local agencies. (Spring Semester)

## **SRVY 298 - OJT: Land Surveying III**

Credit(s): 4

*Prerequisite(s):* SRVY 242.

On-the-job training under the supervision of a registered professional surveyor. A minimum of 120 hours of work is required as well as a daily diary detailing work performed. (Intermittently)

## **Statistics (STAT)**

### **STAT 216M - Introduction to Statistics**

Credit(s): 4

*Prerequisite(s):* appropriate placement test score, a grade of "C" or better in M 115M, or Math Department consent.

Graphical methods, measures of location and dispersion, probability, commonly used distributions, estimation, and tests of hypotheses through analysis of variance are introduced. Five major probability distributions are discussed: the binomial, normal, student's t, chi-square, and the F distribution. (All Semesters)



**Theatre (THTR)****THTR 101FH - Introduction to Theatre**

Credit(s): 3

The background and theories of theatre arts, appreciation of the theatre and dramatic literature, and the practical aspects of producing a play are explored. (Intermittently)

**THTR 102F - Introduction to Theatre Design**

Credit(s): 3

This course will provide a basic understanding of the principles of design for the theatre including the production elements of scenery, sound, digital media and lighting. (Spring Semester)

**THTR 106 - Theatre Production I: Run Crew**

Credit(s): 1

Students function as a member of the production team in a role of responsibility (i.e. scenic designer, lighting designer, artistic director, technical director...). Course may be repeated for a total of four credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

**THTR 120F - Introduction to Acting I**

Credit(s): 3

The focus of this course is interactive development of basic acting skills through psycho-physical technique: dramatic action, image-making and improvisation. (Fall Semester)

**THTR 121F - Introduction to Acting II**

Credit(s): 3

*Prerequisite(s):* instructor's consent.

A continuation of THTR 120F, students further explore improvisation, textual links and development of performance project. (Spring Semester)

**THTR 122C - Acting for Non-Majors**

Credit(s): 3

This course is an introduction to the skills and techniques required of the actor to be effective in communication with others on stage and off stage. (Fall and Spring Semesters)

**THTR 202 - Stagecraft I: Lighting and Costumes**

Credit(s): 3

Fundamental theories and application in the areas of scenery, lighting, sound, and stage properties are covered in this course. (Fall Semester)

**THTR 203 - Stagecraft II: Scenery and Props**

Credit(s): 3

This course is a continuation of the fundamental theories and application in the areas of scenery, lighting, sound and stage properties and painting. (Spring Semester)

**THTR 205 - Theatre Workshop II**

Credit(s): 2

This course is designed to give the student the theory, practice, and application of the artistic and technical production in a performance situation. Course may be repeated for a total of eight credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

**THTR 235H - Dramatic Literature**

Credit(s): 3

This course will examine a variety of plays from ancient Greece to modern times. The types of drama studied range from tragedy to comedy. The styles of drama studied will also vary including classicism, realism, and absurdism. This course focuses on drama as a literary genre. (Fall and Spring Semesters)

**THTR 239CF - Creative Drama and Dance for K-8**

Credit(s): 3

This course focuses on the use of creative drama and dance as types of educational tools. Students will explore, experience, and implement creative teaching methods in order to promote scholarship through kinesthetic teaching in elementary education. (Spring Semester)

**THTR 275 - Beginning Directing II**

Credit(s): 3

This course is offered for students wishing to expand their theatre experience in the area of artistic direction. This course is geared to anyone with an interest in developing the basic skills necessary to understand the role and responsibility of the artistic director. (Intermittently)

**Fish and Wildlife Science and Management****WILD 270N - Wildlife Habitat and Conservation**

Credit(s): 3

Principles of wildlife ecology and wildlife administration as a basis for the conservation of species with their habitat. Non-natural resource majors are encouraged to take this course. (Spring Semester)

**Welding (WLD) / (WLDG)****WLD 112 - Introduction to Pipe Welding**

Credit(s): 4

*Prerequisite(s):* WLDG 100, WLDG 111.

This course is an introduction to pipe welding using the shielded metal arc welding process. The student is instructed on electrode selection, joint and equipment setup. All pipe welding positions will be presented along with the various welding processes employed in pipe welding. (All Semesters)

# Course Descriptions

2015-2016

## **WLD 121 - Welding Certification II**

Credit(s): 2

*Prerequisite(s):* WLDG 185 and instructor's consent.

This class provides experienced welders the opportunity to prepare for, practice, and complete the AWS, API National Welding Certificate exam. The training will include flat, horizontal, vertical, overhead positions of mild and medium steel. Emphasis is placed on AWS standards for Bridge, Structural Steel and Pipe welding codes employing 1" steel for unlimited thickness certification IAW AWS procedures. This course may be repeated for a total of eight credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

## **WLD 135 - GMAW/GTAW Welding and Certification**

Credit(s): 4

*Prerequisite(s):* WLDG 111.

An advanced study of Gas Metal Arc Welding using the dual shield flux-core welding process in various positions; emphasis will be placed on 5G and 6G positions. Gas Tungsten Arc Welding to ferrous and non-ferrous metals in various positions on pipe and plate will be studied. This course may be repeated for a total of 16 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this class. (All Semesters)

## **WLDG 100 - Introduction to Welding Fundamentals**

Credit(s): 4

This course is an introduction to welding theory. The fundamentals of welding equipment used in oxyacetylene, shielded metal arc, gas metal arc, gas tungsten arc, including welding and cutting safety. Basic metallurgy and welding process theory will be incorporated. (All Semesters)

## **WLDG 111 - Welding Theory I Practical**

Credit(s): 4

*Prerequisite or Corequisite:* WLDG 100.

This is an introductory course presenting the care and use of arc and oxy-fuel welding equipment, regulators, torches, cylinders, power sources, electrodes, characteristics of operation, welding of mild steel and special application weld procedures. Various techniques of welding mild steel and medium steel will be studied. Mechanical properties of metals and types of joints are also presented. (All Semesters)

## **WLDG 117 - Blueprint Reading and Welding Symbols**

Credit(s): 3

This course presents an introduction to industrial blueprints used in the welding industry. Emphasis will be placed on terminology, weld symbols, weld specifications, dimensions, industry and AWS standards. The course also includes interpretation of plans and drawings used by industry in field applications. (All Semesters)

## **WLDG 122 - Welding Theory III Practical**

Credit(s): 4

*Prerequisite(s):* WLDG 100, WLDG 111 or instructor's consent.

This is an introductory course that presents the care and use of flux core arc welding (FCAW) and shielded metal arc welding (SMAW). The course will present various techniques of welding mild steel and medium steel. The mechanical properties of metals and types of joints are discussed in relation to FCAW and SMAW techniques. (All Semesters)

## **WLDG 145 - Fabrication Basics I**

Credit(s): 3

This course covers basic fabrication techniques as they relate to product manufacturing, maintenance and repair. Topics presented include bending, forming, shearing, punching operations, flat pattern layouts, basic jig and fixture applications, and assembly methods. (Fall and Spring Semesters)

## **WLDG 146 - Fabrication Basics II**

Credit(s): 3

This is an introductory course that introduces students to robotics and automated systems and their operating characteristics. Students will learn basic coordinate systems and how to design, lay out, and produce a manufacturing project employing the PlasmaCAM system. (Spring Semester)

## **WLDG 185 - Welding Qualification Test Preparation**

Credit(s): 2

*Prerequisite(s):* WLDG 111 or instructor's consent.

This course provides experienced welders the opportunity to prepare for, practice, and complete the AWS National Welding Certificate exam to AWS D1.1 code. The training will include flat, horizontal, vertical, overhead positions of mild and medium steel. Emphasis is placed on heat and rod selection for various metals, techniques, and exam requirements. Both stick and tig welders will be employed. This course may be repeated for a total of eight credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this class. (Fall and Spring Semesters)

## **WLDG 220 - Welding Fabrication I**

Credit(s): 4

*Prerequisite(s):* WLDG 145, WLDG 146.

This course is designed to incorporate fabrication techniques studied in WLDG 145 and WLDG 146. Students will design blueprints with weld symbols, including a materials list and cost estimate. Fabrication layout, proper machine selection, and advanced welding techniques will be used to fabricate projects. (Fall Semester)

## **WLDG 222 - Welding Fabrication II**

Credit(s): 4

*Prerequisite(s):* WLDG 145, WLDG 146.

This is an advanced course intended to further develop the student's fabrication techniques. The emphasis is on advanced programming, layout, blueprints, weld symbols, machine setups, cost estimation, and project design. (Spring Semester)

**WLDG 280 - Weld Testing Certification**

Credit(s): 4

*Prerequisite(s):* WLD 112, WLDG 122.

This course is an advanced study of pipe welding using SMAW, FCAW, and GTAW including electrode selection, equipment setup, and shop safety. This course will emphasize the 5G and 6G welding positions using E6010 and E7018 electrodes, along with plumbing, squaring, and fabricating steel test pipes. This course may be repeated for a total of 16 credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this class. (All Semesters)

**Writing (WRTG)****WRIT 095- - Developmental Writing**

Credit(s): 3

*Prerequisite(s):* score of 38 or better on COMPASS placement test or instructor's consent.

This is the second level developmental course focused on building skills necessary for expository writing. Based on assessment of student needs, instruction emphasizes paragraph development resulting in unity, coherence, and organization. Students will begin with the well-developed paragraph and extend to the essay. Instruction in grammar, mechanics and usage is also included. (All Semesters)

**WRIT 101W - College Writing I**

Credit(s): 3

*Prerequisite(s):* score of 75 or better on COMPASS placement test or a grade of "C-" or better in WRIT 095-.

Instruction and practice in expository writing, this course emphasizes specific writing and revision techniques to develop coherence, conciseness, clear and forceful style and voice, and thinking skills. Assignments range from short pieces to essays and a research paper. Mastery of the basics of grammar and mechanics is assumed. (All Semesters)

**WRIT 121C - Introduction to Technical Writing**

Credit(s): 3

*Prerequisite(s):* a grade of "C-" or better in BMGT 205C or WRIT 101W.

This course develops skills in writing for technical application: resumes, reports, business letters and fundamentals of research - the type of writing found in business, science and industry. (Fall and Spring Semesters)

**WRIT 201W - College Writing II**

Credit(s): 3

*Prerequisite(s):* a grade of "B-" or better in WRIT 101W or instructor's consent.

This course refines specific writing techniques and develops control of style and voice. Emphasis will be placed on the essay form and writing for a specific audience. Also included are advanced rhetorical and persuasive forms, elementary logic, and research techniques. (Fall and Spring Semesters)

## **Quality lifelong learning opportunities for anyone seeking personal enrichment and enhanced employment skills.**

*Susie Burch, Executive Director  
Economic Development & Continuing Education  
Arts and Technology Bldg., Room 215  
(406) 756-3832*

At every stage and any age, lifelong learners want education for information, enjoyment, advancement, and fulfillment. Those intriguing and engaging lifelong learning opportunities are waiting at FVCC's Continuing Education Center. Our Lincoln County campus also offers many Continuing Education opportunities that are scheduled separately.

The following programs are all part of the Continuing Education Center in Kalispell and at our Lincoln County Campus in Libby:

- Non-Credit Classes\*
- Online Non-Credit Classes
- Business and Workforce Training\*
- Entrepreneurship Center\*
- Small Business Development Center
- Customized Workforce Training\*
- Montana Superhost
- Kid's College
- Professional Development\*
- Teacher Renewal Units\*
- Summer Gunsmithing Program

\* Programs available at the Lincoln County Campus

The Continuing Education Center serves non-traditional students in ways that are different from the structure of regular college credit classes. FVCC's non-credit programs and activities are offered to everyone, regardless of educational level. The emphasis is on quality instructors who are anxious to share information about their areas of expertise.

*To find out what is currently being offered in Kalispell:*

*Email: [ceinfo@fvcc.edu](mailto:ceinfo@fvcc.edu)*

*Call: (406) 756-3832*

*Visit Online:*

*[www.fvcc.edu/continuing-education.html](http://www.fvcc.edu/continuing-education.html)*

*To find out what is currently being offered in Libby:*

*Jan Meadows, Coordinator*

*Continuing Education - Extended Learning Division*

*Lincoln County Campus - Libby, MT*

*225 Commerce Way*

*(406) 293-2721 ext. 235*

## *Non-Credit Classes*

FVCC's non-credit courses are designed for learners of all ages. Courses have been developed to enhance the cultural, social and economic well-being of the community. A variety of non-credit classes are available to choose from whether you want to improve your technology skills with Microsoft Office programs, QuickBooks or Web design; boost your job skills with supervisory, communication, business or certification training; be creative with painting, beading, photography; or just have fun with art, dance, history, fitness, or recreation classes.

Continuing Education provides a variety of quality, lifelong learning opportunities at an affordable price. The instructors are dedicated and caring members of the community who are knowledgeable and enthusiastic about their subject matter. Non-credit programs are conveniently scheduled to meet the needs of the casual learner.

## *Online Non-Credit Classes*

Online classes are engaging. Classes are offered on a variety of subjects from computers to business administration to writing and language. Students can choose from nearly 300 course listings that have been carefully engineered to provide quick and easy access at times convenient to the learner.

- Classes start every month
- Convenient - learn at home or at work
- Lessons are available on Wednesdays and Fridays
- Classes accessed over the Internet anytime - day or night
- Most classes are 6-8 weeks long and do not require textbooks

## *Business and Workforce Training*

Attend workshops and short courses each semester to upgrade and expand skills that may include business development, basic to advanced computing, career transition, customer service, web page design, financial statements, communications, leadership, management or supervision, non-profit development, industry certifications and more.

## *Entrepreneurship Center*

FVCC's Entrepreneurship Center fosters the development of the entrepreneurial mindset through courses and community events. The Center also helps entrepreneurs and start-up businesses navigate the resources available to them.

## 2015-2016

### *Small Business Development Center*

FVCC serves as the host agency for the Northwest Montana Small Business Development Center (SBDC). The Center assists existing and start-up businesses with counseling, education and resources needed to succeed in today's market. For a full description of services, please visit [businessresources.mt.gov/programs/SBDC/Kalispell](http://businessresources.mt.gov/programs/SBDC/Kalispell).

### *Customized Workforce Training*

We can bring one of our workshops to your business or custom design a training program to help you and your staff achieve specific business goals. Usually a short phone conversation is all it will take to evaluate your needs and determine your options. Meeting or retreat facilitation and strategic planning are also available.

### *Montana Superhost*

Through a contract with the Montana Office of Tourism, FVCC's Continuing Education Center coordinates Montana's statewide Superhost customer service seminars. These community sessions, online training, and webinars are normally free of charge for tourism-related businesses and organizations across Montana. Please visit [www.montanasuperhost.com](http://www.montanasuperhost.com) for more information.

### *Kid's College*

Kid's College is lots of fun! Hands-on activities encourage children to explore, discover and learn by actually doing. The teaching staff provides extraordinary summer learning opportunities that stimulate creative minds, build healthy bodies and challenge adventurous souls.

## The Continuing Education Center

### *Professional Development*

The Continuing Education Center can also help sponsor and coordinate Continuing Education Units and other certifications for professional development. Managers, supervisors, bankers, administrators and other professionals can be provided with a record of completed continuing education programs.

### *Teacher Renewal Units*

Special workshops of interest to educators are offered with approval from the Office of Public Instruction for teacher renewal units throughout the year.

### *Conference Hosting*

Let us assist you with your conference registration. Our experienced staff can provide quality assistance to coordinate registration and related services for you.

### *Summer Gunsmithing Program*

We offer an NRA-approved, short-term summer gunsmithing program, which promotes sportsmanship and craftsmanship. Our instructors, many with nationwide expertise, offer a wide array of course topics in a convenient one-week format.



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2015-2016

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## 2015-2016

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*MS, Towson University*  
*BS, Baldwin-Wallace*

### **Mary Hudak**

Instructional Coordinator, Savory  
*BS, Cornell University*

### **Melissa Hunt**

Teacher, Early Childhood Center

### **Lowell Jaeger**

Professor, Language Arts  
Chairperson, Humanities Division  
*MA, MFA, University of Iowa*  
*BS, Northern Arizona University*

### **Marlyn James**

Professor, Early Childhood Education  
Chairperson, Social Sciences Division  
*MA, BA, Pacific Oaks College*

### **Emily Jense**

Executive Assistant/CHEO Grant Manager  
*MA, BA, University of Montana*

### **Chuck Jensen**

Vice President of Administration and Finance  
*MBA, University of Montana*  
*BS, Montana State University*

### **Wendy Jeschke**

Program Coordinator, Service Learning

### **Coral Johnsen**

Custodian II

### **Sally Johnson**

Graphic Design Specialist  
*AS, Iowa Lakes Community College*

# Personnel

2015-2016

## **Suzanne Johnston**

Cook, Early Childhood Center

## **Mary Jordt**

Coordinator, Advising and Retention  
*MSW, Walla Walla College*  
*BA, University of Montana*  
*AA, Flathead Valley Community College*

## **Rocky Journey**

Accounts Technician, Bookstore  
*BS, University of Montana*

## **Sue Justis**

Associate Professor, Medical Biology  
*PhD, MS, Miami University*  
*BA, Ottawa University*

## **Amy Kanewischer**

Customer Service Specialist, Admissions and Registration  
*BA, Minot State University*

## **Jane Karas**

College President  
*PhD, Heller School, Brandeis University*  
*BA, Wellesley College*

## **Howard Karp**

Executive Chef

## **Susan Kelly**

Faculty Relations Specialist, Humanities, Business and Social Sciences Divisions

## **Cynthia Kiefer**

Director, Financial Aid  
*BA, McKendree College*

## **Warren Kiefer**

Systems Analyst

## **Carrie Kintzler**

Administrative Assistant, Student Health Center

## **Pam Klein, RN**

Instructional Coordinator, Nursing  
*AS, Northern Montana College*

## **Dennis Knuth**

Safety Officer

## **Samantha Kujala**

Faculty Relations Specialist, Math, Science and Health Science Divisions  
*BS, Montana State University*

## **Russ Lamson**

Counselor  
*MA, BA University of Montana*  
*AA, North Idaho Community College*

## **Steve Larson**

Director, Physical Facilities  
*BA, University of Washington*

## **Ronnie Laudati, CPA**

Professor, Accounting/Business  
*MBA, St. John's University*  
*BBA, City University of New York*

## **Dan Leatzow**

Instructional Coordinator, Advanced Manufacturing  
*PhD, MS, Washington State University*  
*BS, University of Colorado*

## **R. Joe Legate**

Professor, Speech/Drama  
*MFA, University of Southern Mississippi*  
*MA, BSE, Arkansas State University*

## **Danielle Lewis**

Teacher, Early Childhood Center  
*BS, University of Montana Western*

## **Patricia Lincoln**

Clinical Coordinator, Surgical Technology  
*AAS, College of Southern Idaho*

## **David Long**

Assistant Professor, Chemistry  
*PhD, California Institute of Technology*  
*BS, Pennsylvania State University*

## **Kristina Long**

Associate Professor, Paramedicine  
Chairperson, Health Science Division  
*BAS, Montana State University*  
*AAS, New River Community College*  
*AA, AS, Flathead Valley Community College*

## **Ivan J. Lorentzen**

Professor, Psychology  
*EdD, MA, University of Montana*  
*MS, BS, Montana State University*

## **Jerry Lundgren**

Professor, Psychology/Sociology/Anthropology  
*MA, Texas Tech University*  
*BA, University of Montana*  
*AA, Flathead Valley Community College*

## **Philip MacGregor**

Professor, Computer Applications/Accounting  
*MS, BS, University of North Dakota*

## **Dan Magone**

Instructional Coordinator, Paramedics  
*AA, Flathead Valley Community College*

## **Molly Maxwell**

Assistant Professor, Mathematics  
*PhD, MS, University of Minnesota*  
*BS, Massachusetts Institute of Technology*

## **Mirabai McCarthy**

Assistant Professor, Plant Biology  
*PhD, MS, Miami University*  
*BS, Lyndon State College*

## **Mike McGarvey**

Coordinator, Foundational Math  
*BS, Montana State University*

## **Jan Meadows**

Coordinator, Continuing Education - Extended Learning Division



## 2015-2016

## Personnel

### **Amatzya Mezahav**

Assistant Professor, Sociology  
*PhD, University of Oregon*

### **Melvin Moe**

Trainer, Commercial Driver's License

### **Christopher Moore**

Instructional Coordinator, Heavy Equipment Operator

### **Sharon Nau**

Associate Registrar/Systems Analyst  
*AA, AAS, Flathead Valley Community College*

### **Carrie Nelson**

Technician III (Technical Processing), Library  
*BS, Montana State University*  
*AA, Flathead Valley Community College*

### **Rick Nelson**

Custodian II

### **Lori Nicholas**

Instructional Specialist, Math  
*BA, University of Montana*  
*AS, Flathead Valley Community College*

### **Arlene O'Donnell**

Cashier, Business Services

### **Brent Owens**

Manager, Dining Services  
*BS, Western Caroline University*

### **Rick Owens**

Systems Analyst, Advanced - Systems Operations

### **Daniel Paine**

Assistant Professor, Mathematics  
*PhD, University of Utah*  
*BS, University of Wyoming*

### **Leanne Parker**

Assistant Professor, Substance Abuse Counseling/Social Work  
*PhD, University of Montana*  
*MEd, University of Idaho*  
*Med, College of William and Mary*

### **Christopher Parson**

Project Director, Center of Excellence  
*BS, Montana State University*

### **Marti Paugh**

Curriculum Development Specialist  
*MEd, University of Montana*  
*BA, Carroll College*

### **Laurie Peiffer**

Director, Early Childhood Center  
*AA, Flathead Valley Community College*

### **Carole Pinnell**

Instructional Specialist, Reading  
*MS, Western Governors University*  
*BS, University of Great Falls*  
*AAS, Flathead Valley Community College*

### **Calvin Pippin**

Manager, Custodial Services  
*BS, Montana State University-Northern*

### **Kathryn Preiss**

Program Coordinator, Events  
*BA, Carleton College*

### **Sinda M. Puryer**

Technician II, Library  
*AA, Flathead Valley Community College*

### **Effat Rady**

Associate Professor, Engineering/Mathematics  
*PhD, MS, Massachusetts Institute of Technology*  
*BS, Cairo University*

### **Conrad Rauscher**

Assistant Professor, English  
*MA, University of Nevada, Reno*  
*BA, Flagler College*

### **Dawn Rauscher**

Associate Professor, Computer Applications  
Chairperson, Business Division  
*MEd, University of Georgia*  
*BS, Embry-Riddle*

### **Gerda Reeb**

Program Coordinator, International Student Services  
*PhD, MA, University of Oregon*

### **Roberta Reese**

Bookstore Assistant Manager

### **David Regan**

Assistant Professor, Ceramics  
*MFA, Alfred University*  
*BFA, Rochester Institute of Technology*

### **Catherine Relf**

Clinical Coordinator, Nursing  
*MS, University of Wisconsin, La Crosse*  
*BS, Saint John's University*

### **Christina Relyea**

Associate Professor, Natural Resources  
*PhD, Idaho State University*  
*MS, University of Central Arkansas*  
*BS, University of Arkansas*

### **Antonette Reynolds**

Administrative Assistant, Career and Technical Education

### **William Richards**

Navigator, AMAMII  
*BS, Brigham Young University*

### **Myrna Ridenour, RN**

Program Director, Nursing  
*MSN, Regis University*  
*BSN, Montana State University*

### **Steve Ritter**

Mechanic, Heavy Equipment

## Personnel

2015-2016

### **Julie Robertson**

Assistant Professor, Physical Therapist Assistant  
*MS, Pacific University*  
*BA, University of Notre Dame*

### **Leslie Rogers**

Associate Director, Community Education  
*AA, Flathead Valley Community College*

### **Elizabeth Romain**

Program Coordinator, High School Relations  
*BS, University of Montana*  
*AA, Flathead Valley Community College*

### **Tara E. Roth**

Director, Communications  
*BA, The University of Alabama*

### **Brenda Rudolph**

Professor, Business Education  
*MBA, University of Montana*  
*BA, University of Northern Colorado*  
*Medical Coding Certificate*

### **Anna San Diego**

Program Coordinator, Disabilities Services  
*MS, BA, University of Wisconsin-Madison*

### **Tressa Schutter**

Clerk, Copy and Mailroom  
*AAS, Flathead Valley Community College*

### **Jill Seigmund**

Grant Writer/TAACCCT Grant Entrepreneurship Coordinator  
*BA, University of Montana*

### **Melanie Settle**

Administrative Specialist, Educational Services  
*AAS, Flathead Valley Community College*

### **Monica Settles**

Assistant to the President/District Clerk  
*BS, University of Montana*  
*AA, Flathead Valley Community College*

### **Michael Severino**

Assistant Professor, Mathematics  
*PhD, MA, University of Montana*  
*BA, William Paterson University*

### **Denise Shuman**

Manager, Bookstore  
*AA, Butte Community College*

### **Jennifer Sims**

Teacher, Early Childhood Center

### **Donald Skare**

Purchasing/Facilities Coordinator  
*AA, AAS, Flathead Valley Community College*

### **Michael Skinner**

Assistant Professor, Criminal Justice  
*MS, National University*  
*BPA, University of Mississippi*

### **Allison Smeltz**

Web Content Specialist  
*BS, Colorado State University*

### **Harry Smith**

Program Coordinator, Manufacturing

### **Jodi Smith**

Program Director, Workforce Training  
*MEd, Peabody College of Vanderbilt University*  
*BA, St. Olaf College*

### **Joyce Song**

Systems Analyst - Systems Support  
*MS, University at Buffalo*  
*BS, Sogang University*

### **Jim Soular**

Instructional Specialist, Writing  
*MA, MFA, University of Montana*  
*BA, St. Cloud State University*

### **Lorraine Springer**

Technician, Admissions and Records

### **Sherrri Staat**

Customer Service Specialist, Financial Aid

### **Julie Stanton**

Systems Analyst - Support  
*BS, University of Houston*

### **Marlene Stoltz**

Director, Admissions/Registrar

### **Debbie Struck**

Program Assistant, Continuing Education  
*AAS, Flathead Valley Community College*

### **Charles Taylor**

Assistant Professor, Anatomy and Physiology  
*MS, New York Chiropractic College*  
*BS, University of Southampton*

### **Sherry Taylor**

Specialist, Financial Aid  
*BA, Radford University*  
*AA, University of Montana*

### **Matthew Thompson**

Maintenance Worker II

### **Maya Tsidulko**

Institutional Research Analyst  
*BA, BS, University of Maryland*

### **Colleen Unterreiner**

Executive Director, Institutional Advancement  
*MPA, Arizona State University*  
*BA, Washington State University*

### **Kathy VanBemmel, PHR**

Human Resources Specialist II

### **Laura VanDeKop**

Associate Professor, Mathematics  
*MS, BS, Montana State University*

## 2015-2016

## Personnel

### **Paul Vera**

Custodian II

### **Ronald (Pete) Wade**

Director, Career Technical Education

MA, BA, University of Montana

MA, Princeton University

### **Claudia Walter**

Office Supervisor

### **Amelia Ward**

Systems Analyst, Support

BAS, Montana State University, Billings

AAS, Air University, Community College of the Air Force

### **David Welty**

Custodian II

### **Erin Wenner**

Assistant Professor, Mathematics

MS, Montana State University

BA, University of Montana

### **Adam Wenz**

Assistant Professor, Chemistry

MS, BS, Montana Tech

### **Julie Wenz**

Instructional Technologist

MEd, Montana State University

BS, Montana Tech of the University of Montana

### **Karla West**

Professor, Business/Medical Assistant Program

MS, Montana State University

BA, Concordia College

### **Katie White**

Associate Director, Marketing

MBA, University of Montana

BS, Montana State University

### **Gail Whitney**

Project Coordinator, TAACCCT

MPA, Idaho State University

BA, Pacific Lutheran University

### **Danelle Whitten**

Associate Director, Financial Aid

BAS, Montana State University-Northern

AAS, Great Falls College of Technology

### **Robert Williams**

Maintenance Worker II

### **Ruth Wrightsman**

Associate Professor, Biology

PhD, University of California, Irvine

BA, Anderson College

### **Kirk D. Zander**

Controller

MBA, BS, University of Montana

### **Gregory Bruns**

Navigator/Advisor AMAMII Grant

BA, University of Maryland University College

AAS, Air University, Community College of the Air Force

### **Janet Haines**

LCC Administrative Assistant/AR and AP Technician

### **Dorothy Hintz**

Professor, English/Humanities

MA, University of Montana

MS, BS, Indiana University

### **Debbie Huisentruit**

Program Coordinator of Student Services, Extended

Learning/Adjunct Professor

MHS, University of Great Falls

BS, College of Great Falls

AA, Flathead Valley Community College

### **Jan Meadows**

Coordinator, Continuing Education - Extended Learning Division

BA, University of Montana

AA, Flathead Valley Community College

### **Chad Shilling**

Professor, Business

MBA, BS, University of Montana

### **Marvin Speck**

Maintenance/Custodian II

## *Emeritus Administrator*

### **Faith Hodges**

*MBA, BS, University of Montana  
AAS, Flathead Valley Community College*

### **Kathy Hughes**

*MEd, North Texas State University  
BS, Southern Methodist University*

## *Emeritus Dean*

### **Mr. William McClaren**

*MA, Columbia University  
AB, Colorado State College of Education*

## *Emeritus Faculty*

### **Dr. Robert Beall**

*PhD, MS, University of Montana  
BS, University of Michigan*

### **Dr. Alexander Blood**

*DSc, Colorado School of Mines  
BS, University of Virginia*

### **Mr. Richard Champoux**

*MA, BA, University of Montana*

### **Mr. Reginald DuMontier**

*MA, University of North Dakota  
BA, University of Montana*

### **Mr. Donald Garner**

*MS, BS, Brigham Young University*

### **Mr. Thomas Jay**

*MA, BA, Northern Arizona University*

### **Dr. Mel Jordan**

*PhD, University of Wyoming  
MA, BA, Adams State College*

### **Dr. Jeanette Oliver**

*PhD, MS, BS, Purdue University*

### **Mr. John Rawlings**

*BEd, Torrens College  
MFA, University of Guanajuato*

### **Mr. William Rossiter**

*MA, BA, Marquette University*

### **Mr. Richard Schaus**

*MS, Naval Postgraduate School  
BS, University of Michigan*

### **Dr. David Scott**

*EdD, University of Montana  
MDiv, Garrett Theological Sem., Northwestern University  
BA, University of Alabama*

### **Mr. George Shryock**

*EdS, University of Montana  
MA, BS, Idaho State University*

### **Dr. Robert Zahrobsky**

*PhD, University of Colorado  
BA, University of Illinois*

## 2015-2016

## Advisory Boards

### *Career and Technical Education Advisory Board Membership*

#### **Accounting Technology**

Julie Adkins - Julie M. Adkins, CPA  
Jason Brown - Automated Business Services  
Amy Elletson - FVCC Business Services  
Reed Gunlikson - Gunlikson CPA's and Consultants  
Don Kisler - Jordahl and Sliter  
Susan Nicosia - City of Columbia Falls

#### **Building Trades**

John Andrew - Northwest Drywall and Roofing  
Curt Denning - Denning Sheet Metal Inc.  
Andrew Fischer - Bigfork Builders  
Barb Funk - Windermere Real Estate  
Jason Hatten - Datum Drafting Design, Inc.  
Randy Hinzman - Distinctive Countertops and Cabinetry  
Brad Reedstrom - Bigfork Builders  
Andrew Sliter - Sliter's Lumber  
Steve Tartaglino - Cornerstone Construction NW, Inc.  
Greg Waldrop

#### **Business Administration/Small Business**

##### **Management**

Phil Boyce - Precision Engineering  
Ned Cooney - Nonprofit Development Partnership  
Heather Estrada - FVCC  
Maarten Fischer - Growth through Agriculture  
Hillary Ginepra - FVCC  
Mike Jackson - Job Service  
Tom Jay - FVCC Emeritus  
Cindy Jones - Kalispell Public Schools  
Margaret Lekander - Wheaton's  
Kim Morisaki - Montana West Economic Development  
Chris Parson - Northwest Small Business Development Center  
Jeremy Presta - Parkside Federal Credit Union  
Brenda Rudolph - FVCC  
Chad Shilling - FVCC Lincoln County Campus  
Jan Shanahan - Montana Artrepreneurship Program  
Jodi Smith - FVCC  
Joe Unterreiner - Kalispell Chamber of Commerce  
Jeff Wisher - Able Body Shop

#### **Cabinet and Furniture Technology**

Tony Dawson - Northwest Cabinets  
Rick Dodds - Architectural Woodwork  
Domenic Garefino - The Cabinet Connection  
Jeff Gilman - Gilman Woodworking  
Leif Nelson - Blue Spruce Woodworking  
Ole Netteberg - Old World Cabinet Shop  
Lori Reiner - Flathead Job Service  
Jim Sullivan - Glacier Woodworking  
Chris Winters - Samuelson Cabinets

#### **Criminal Justice**

Lori Adams - Kalispell Municipal Court  
David Castro - Montana Probation and Parole  
Ed Corrigan - Flathead County Attorney  
Chuck Curry - Flathead County Sheriff  
Bill Dial - Chief Whitefish Police Department  
Ike Eisentraut - Moonlighting Detective Agency  
Captain Hilldenstaff - Montana Highway Patrol  
Roger Laferriere - Office of Emergency Services  
Steven Liss - Federal Bureau of Investigation  
David Perry - Columbia Falls Police Chief  
Wade Rademacher - Kalispell Police Department  
Steven Stow - U.S. Dept. of Homeland Security  
Richard Stratton - U.S. Customs and Border Protection

#### **Culinary Arts**

Josh Auerhammer - Culinary Design Studio  
Mary Behrendt - Columbia Falls School District  
Andy Blanton - Café Kandahar  
Barb Brandt - Montana Coffee Traders  
Dana Cordell - Montana Apple Barrel  
Heather Estrada - FVCC  
Casey Jensen - FVCC Graduate  
Lori Marin - Consumer Foods  
Chris McLaughlin - Tamarack Brewery  
Jeff Russell - Great Northern Pasta  
Hugh Yates - Blue Canyon Kitchen and Tavern

#### **Early Childhood Education**

Linda Crayne - Tyketown  
Denice Malley - The Nurturing Center  
Sue Motes - Conners, Kid Kare  
Sherri Smith - Nurturing Center  
Cami Stacy - Tyketown

#### **Electrical Technology**

Dick Frisk - Frisk Electric  
Mark Heider - Heider Electric  
Larry Langley - IBEW  
Jim Michlig - Kalispell Electric

#### **Emergency Management**

Wally Bennet - Montana DNRC  
Susie Burch - FVCC Continuing Education  
Dave Dedman - Kalispell Fire Department  
Steve Frye - Montana DNRC  
Brett Lloyd - Spartan Consulting  
Ken Mesch - Retired, Montana Department of Disaster and  
Emergency Services  
Terry Mitton - City of Kalispell  
Cindy Mullaney - Flathead County Office of Emergency Services  
Mark Peck - Montana DNRC  
Jodi Smith - Workforce Training, FVCC



## **Goldsmithing and Jewelry Arts**

Tony Asa - Independent Goldsmith  
Susie Burch - FVCC  
Janet Fischer - FVCC Instructor  
Nathaniel Gilham - FVCC Instructor and Graduate  
Vivian Goodnight - FVCC Alum  
Jill Goodson - Gemvision  
Wayne Hammer - Vizeit, Inc.  
Karen Kolar - FVCC Instructor  
Benjamin Mattison - FVCC Graduate  
Murphy McMahon - Murphy McMahon & Co.

## **Graphic Design**

Cindy Branch - 406 Woman  
Bonnie Bushman - Caboodle Graphic Design  
Gina Gagnon - Snowghost Design  
Dwayne Harris - Flathead Beacon  
Jeremiah Martin - The Zane Ray Group  
Diane Mills - The Zane Ray Group  
Derrick Mitchell - Mitchell's Garage  
Lisa Slagle - Wheelie Creative Design LLC

## **Health Care Office Management, Health Information Technology (HIT) and Patient Relations Specialist**

Stacey Bradley - KRMC  
Misty Kratofil - VA Clinic  
Traci Waugh - North Valley Hospital  
Vicki Wilcutt - KRMC  
Deb Wolfshorndhl - FVCC

## **Health Occupations**

Krista Andrews - Flathead Community Health Center  
Chris Clouse - FVCC  
Renee Jones - FVCC Graduate  
Pam Klein - FVCC  
Inga Lake - Agape Home Care  
Kris Long - FVCC  
Amy McKoon - West Flathead EMS  
Myrna Ridenour - FVCC  
Brenda Rudolph - FVCC  
Lance Westgard - Three Rivers EMS  
Jody White - Flathead Valley Community Health Center  
Pat Wilson - KRH

## **Heating, Ventilation and Air Conditioning (HVAC)**

Terry Aubrey - Flathead Job Service  
Chris Compton - HVACRedu.net  
Jerry Lyford - Retired, Water Works  
Gerry Nichols-Pagel - CTA  
Randy Schelling - Airworks  
Russ Trutzel - Johnson Controls  
Debbi Waldenberger - Central Heating, Plumbing, Cooling & Electrical  
Chad Wermer - KRMC  
Diane and Bill Yarus - Airworks

## **Heavy Equipment Operator**

Rob Frost - U of M COT- Missoula  
Dave Landstrom - MT Fish Wildlife and Parks  
Keith Ottens  
Jim Reynolds - Salish-Kootenai College  
Steve Settle - Settle Construction  
Dave Weaver - Hanson Trucking  
Mike Wilson - Timberlake Construction

## **Human Services**

Mike Cummins - Flathead Valley Chemical Dependency Program  
Kim DeWitt - Community Action Partnership  
Randy Kenyon - Opportunity, Inc.  
Flo Kiewel Summit/Independent Living Center  
Doug Nelson  
Sherry Wulf - United Way

## **Information Technology**

Joseph French - Eckstrom Consulting  
Joe Hickox - Torrent Technologies  
Gil Parsons - Flathead County  
Ron Sheets - FVCC Management Information Systems  
Glen Wehe - Evergreen School District

## **Integrated Agriculture and Food Systems**

Brian Bay - H.E. Robinson Vo-Ag Center  
Brooke Bohannon - MSU Northwestern Ag Research Center  
Gretchen Boyer - Farm Hands/Nourish the Flathead  
Markus Braaten - Precision Applications  
Mark Lalum - Cenex Harvest States  
Pat McGlynn - Montana State University Extension  
Josh Slotnick - University of Montana/Garden City Harvest  
Rebecca Ulizio - Two Bear Farm  
Jim Watson - Springbrook Ranch

## **Manufacturing**

Jacey Barnaby - Plum Creek  
Jim Drager - The Drager Group  
Paddy Fleming - Montana Manufacturing Extension Center  
Laura Gardner - Flathead Job Service  
Greg Grace - Plum Creek  
Ken Green - Timberline Tool Co.  
Chris Hader - Plum Creek  
Randy and Wanda Hinzman - Distinctive Countertops  
Brad Heckerman - American Eagle Instruments  
Chris Hyatt - Montana Firearms Institute  
Trevor Kjensrud - Stoltz Land and Lumber  
Wendy Koster - Diversified Plastics  
Jon Kuntz - Applied Materials  
Jason Manger - Applied Materials  
John McGinnis - Synergy  
Kim Morisaki - Montana West Economic Development  
Bill Nicholson - Montana Manufacturing Extension Center  
Steve Peace - ViZn Energy Systems  
Will Schmautz - Nomad Global Communication Solutions  
Jason Sonju - Sonju Industrial  
Steve Thompson - Thompson Precision  
Jim Wright - Proof Research

**Medical Assistant**

Leslie Beard - FVCC  
 Chris Degenhart - Glacier Maternity Women's Center/FVCC  
 Craig Harrison, MD - Kalispell Gastroenterology  
 Kelly Leaser - KRMC  
 Kris Long - FVCC  
 Brooke McMahan - KRMC  
 Sheila Morin - Big Sky Medical Clinic  
 Val Niles - Glacier Headache and Sleep Medicine  
 Rita Nixon - Family Health Clinic  
 Brandy Thornberg - student  
 Karla West - FVCC

**Medical Office**

Stacey Bradley - Big Sky Family Medicine  
 Misty Kratofil - Veterans Administration  
 Traci Waugh - North Valley Hospital  
 Vicki Wilcutt - KRMC  
 Deb Wolfshorndhl - KRMC

**Natural Resources Conservation and Management**

Mark Boardman - Stoltz Land and Lumber Co.  
 James Burchfield - College of Forestry and Conservation  
 Patrick Heffernan - PAFTI, Inc.  
 Brian Hobday - Stoltz Land and Lumber Co.  
 Dave Jones - DNRC  
 Jim Kranz - Plum Creek Timber  
 Daniel Leavell - Kootenai National Forest  
 Ed Lieser - U.S. Forest Service  
 Larry Magone  
 Pat McGlynn - MSU Extension  
 William Morgan  
 Roger Rettenmeier  
 Deborah Schmidt  
 Jim Williams - Fish, Wildlife and Parks  
 Lorrie Woods - Plum Creek Timber

**Nursing Programs**

Krista Andrews - Flathead Community Health Center  
 Tracie Belsey - FVCC LPN Graduate  
 Chris Bogers - North Valley Hospital  
 Christie Brown - Immanuel Lutheran Home  
 Lisa Dennison - Flathead County Health Department  
 Shilo Fritz - Brendan House  
 Betty Haas - Heritage Place  
 Peggy Hertlein - The Springs at Whitefish  
 Kathy Hughes - Community Member  
 Anita Ivankovig - Cabinet Peaks Medical Center  
 Cathy Jenkins - Libby Care Center  
 Emily Kevenen - Whitefish Care and Rehabilitation  
 Dr. Ovigitano - Neuroscience and Spine Institute  
 Kathy Ray - Montana Veteran's Nursing Home  
 Myrna Ridenour - FVCC  
 Linda Schroeckenstein - Kalispell Regional Healthcare  
 Suzy Williams - FVCC Foundation  
 Pat Wilson - Kalispell Regional Healthcare

**Paramedicine**

Bob Blair, MD - KRMC  
 James Boyce - Evergreen Fire and Rescue  
 Tim Brestler - Polson Emergency Services  
 Susie Burch - FVCC  
 Jon Campbell - Kalispell Fire Department  
 Linda Chambers - ALERT  
 Chuck Curry - Flathead County Sheriff's Office  
 Dave Dedman - Kalispell Fire Department  
 Heather Lackey - Whitefish Fire Department  
 Amy McKoon - West Flathead EMS  
 Michael Moxley - Program Student  
 Rod Schmidt - Bigfork Fire Department  
 Lance Westgard - Three Rivers EMS  
 Cole Williams - Program Graduate  
 Pat Wilson, RN - KRMC

**Personal Trainer**

Mike Baker - City Parks and Recreation  
 Jim Clay - Personal Trainer  
 Dan DePinto - The Summit  
 Stu Levitt - The Summit  
 Cathy Lisowski - The Summit  
 Doug Mahlum - The Wave  
 Lena Morrill - The Summit  
 Brad Roy - The Summit  
 Cherri Schmaus - Kalispell Athletic Club  
 April Terry - Kalispell Public Schools

**Pharmacy Technology**

Leila Avery - Walmart Pharmacy  
 Harley Brotherton - North Valley Hospital  
 Mark Donaldson - KRMC  
 Randy Jensen - Walgreens Pharmacy - Kalispell  
 Gary Morrison - The Clinical Pharmacy  
 Andy Norbeck - Walgreens Pharmacy - Whitefish  
 Tobey Schule - Sykes Pharmacy  
 Becky Stillo - Alpine Ridge Pharmacy  
 Wendy Sunde - Kmart Pharmacy  
 Tera Thorderson - The Clinical Pharmacy  
 Jerod Vradenburg - Safeway Pharmacy  
 Mark Walters - Shopko Pharmacy  
 Renee Wilkonski-Larson - Glacier Ridge Pharmacy  
 Jason Williams - Smith's Pharmacy - Columbia Falls  
 John Wisner - Smith's Pharmacy - Kalispell

**Physical Therapist Assistant**

Margaret Bartels - Orthopedic Rehabilitation  
 Alyssa Cox - Summit Physical Therapy  
 Lori Graybill - Brendan House  
 Patrick Gulick - Orthopedic Rehabilitation  
 Dorene Hay - Home Options  
 Larry Iwerson, M.D. - Flathead Orthopedics  
 Sandy Jahnsen, PT  
 Teresa Kropp - Orthopedic Rehabilitation  
 Kathleen Linney, PT - Acute Physical Therapy, KRMC  
 Katherine Major - Mountain Physical Therapy  
 Kelly Malmum - Professional Therapy Associates  
 Brian Miller - Advanced Rehabilitation Services  
 Keith Ori - Orthopedic Rehabilitation

## Radiologic Technology

Colleen Bench - KRMC  
Anders Engdahl, MD - KRMC  
Tom McFarlane - KRMC  
Jana Rupp - KRMC

## Support Professional

Chere Anderson - Glacier High School  
Tara Barnes - Flathead High School  
Valerie Cooper - LC Staffing  
Mora McCarthy - Flathead Job Service  
Jordan Nelson - Express Employment Professionals  
Jill Sigmund - FVCC

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Bryan Block, PLS - Block's Surveying  
Dan Brien, PLS - Sands Surveying  
Robert Brown, PLS - RAB Surveying  
Marc Burkhart, PLS - Flathead National Forest  
James Burton, PLS  
Sam Cordi, PLS - Sam Cordi Land Surveying  
Michael Drenth, PLS - Eby & Associates  
Jane Eby, PLS, PE - Eby & Associates  
Bob Erickson, PLS - Jackola Engineering  
Olaf Ervin, PLS - O C Ervin Land Surveying  
Ron Gardner, PLS - TD&H Engineering  
Richard Goacher, PLS - Goacher & Associates  
Dawn Marquardt, PLS - Marquardt & Marquardt  
Ryan Mitchell, PLS, PE - Robert Peccia & Associates  
Josh Nelson, PLS - Sands Surveying  
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Tom Sands, PLS - Sands Surveying  
Thomas Sibson, PSL - Sam Cordi Land Surveying  
Jason Smith, PLS - Robert Peccia & Associates  
S. Richard Smith, PLS - Smith Surveying  
Jay Squire, PLS - Jay Squire Land Surveying  
Brian Sullivan, PLS - F & H Land Surveying  
Richard Swan, PLS - TD&H Engineering  
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Pete Francisco - Wheelie Creative Design LLC  
Reed Gregerson - The Zane Ray Group  
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Andrea Korb - Whitefish Web Design  
Amy Stewart - Vubiquity  
Blake Stout - Torrent Technologies

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Bill Gibson - Montana Tech  
Charlie Rice - JORE Corp.  
Dick Riebe - Riebe Machine Shop  
Dick Sonju - Sonju Manufacturing

3D Jewelry Design and Production .....	55
About FVCC.....	4
Academic Advising.....	40
Academic Calendar.....	2
Academic Dishonesty .....	27
Academic Probation and Dismissal.....	26
Accounting	
Accounting Technology, AAS .....	56
Accounting Technology, CAS .....	57
Accounting Transfer.....	58
Accreditation .....	5
Admissions .....	8
Adult Learning Center .....	20
Advanced Placement (AP) .....	34
Advising .....	20
Advisory Board Membership.....	284
Agriculture Transfer .....	60
Appeals.....	16
Art Transfer .....	62
Associate of Applied Science Degree Requirements (AAS) .....	41
Associate of Applied Science Degrees (AAS) .....	54
Associate of Applied Science Nursing Degree (ASN) .....	54
Associate of Arts Degree (AA) .....	54
Biology Transfer.....	63
Biotechnology Transfer .....	65
Board of Trustees .....	275
Bookstore .....	22
Brewing Science and Brewery Operations, AAS .....	66
Building Trades (In Moratorium) .....	67
Business Administration	
AAS .....	70
CAS.....	71
Transfer .....	68
Business and Workforce Training .....	273
Business Innovation and Development, CT .....	72
Campus Childcare.....	24
Cancelled Classes.....	12
Career Development .....	21
Career Exploration.....	20
Certificate of Applied Science Degree Requirements.....	41
Certificate of Applied Science Degrees (CAS) .....	54
Certificate Requirements .....	41
Certificates (CT) .....	54
Change of Residence Status .....	10
Changes in Student Records .....	12
Chemistry Transfer .....	73
CLEP Credit .....	34
Communication Studies Transfer .....	76
Computer Science Transfer .....	77
Conference Hosting.....	274
Continuing Education .....	273
Core Themes .....	4
Course Challenge.....	36
Course Descriptions.....	192
Accounting (ACTG).....	194
Activities (ACT).....	193
Administrative Management (AGMT) .....	204
Agricultural Management (AGMT) .....	195
Agricultural Sciences (AGSC).....	195
Agriculture Technology (AGTE).....	196
Allied Health	
Medical Assisting (AHMA) .....	197
Medical Support (AHMS) .....	198
Physical Therapy (AHPT) .....	200
Allied Health (AH) .....	196
Allied Health: Athletic Training (AHAT).....	197
Allied Health: Radiologic Technology (AHXR) .....	203
Allied Health: Surgical Technician (AHST) .....	202
Animal Science (ANSC) .....	205
Anthropology (ANTY).....	205
Art	
Jewelry (ARTJ).....	207
Visual Arts (ARTZ) .....	208
Art History (ARTH) .....	206
Astronomy (ASTR) .....	211
Biochemistry (BCH).....	211
Biology	
Ecology (BIOE).....	213
General (BIOB).....	212
Human (BIOH).....	214
Micro (BIOM) .....	214
Organismal (BIOO) .....	215
Biology (BIOL) .....	214
Brewing (BREW) .....	217
Business	
General (BGEN).....	211
Marketing (BMKT) .....	216
Business Administration (BADM) .....	211
Business Finance (BFIN).....	211
Business Management (BMGT) .....	215
Business Management Information Systems (BMIS).....	216
Chemical Addiction Studies (CAS).....	218
Chemistry (CHMY) .....	218
Communication (COMX).....	221
Computer Applications (CAPP) .....	220
Computer Science (CSCI) .....	222
Construction Trades (CSTN).....	223
Creative Writing (CRWR) .....	221
Criminal Justice (CJLE) .....	219
Culinary Arts (CULA) .....	224
Dance (DANC).....	227
Drafting Design (DDSN) .....	227
Early Childhood Education (EDEC).....	230
Economics (ECNS).....	229
Education (EDU) .....	231
Electrical Technology (ELCT).....	233
Electronics Technology (ETEC).....	237
Emergency Care Provider (ECP).....	227
Emergency Management (EM).....	235
Electrical Engineering (EELE).....	232
Engineering (EGEN) .....	232
Environmental Sciences (ENSC).....	236
Environmental Studies (ENST) .....	236
Film (FILM).....	237

Firearms Technology (FT).....	<b>238</b>	Sustainable Food and Bioenergy Systems (SFBS).....	<b>266</b>
Fish, Wildlife Science Management (WILD) .....	<b>270</b>	Theatre (THTR).....	<b>269</b>
Forestry (FORS) .....	<b>238</b>	Writing (WRIT).....	<b>271</b>
Geoscience		Credits .....	<b>33</b>
Geography (GPHY).....	<b>241</b>	Criminal Justice	
Geology (GEO).....	<b>241</b>	AAS .....	<b>81</b>
Glacier Institute (GLAC).....	<b>241</b>	Transfer .....	<b>79</b>
Graphic Design (GDSN) .....	<b>239</b>	Culinary Arts, AAS.....	<b>82</b>
Health (HTH) .....	<b>245</b>	Dental Hygiene Transfer .....	<b>84</b>
Health Enhancement (HEE).....	<b>241</b>	Directed Study.....	<b>37</b>
Heating, Ventilating, Air Conditioning, and Refrigeration		Disability Support Services .....	<b>21</b>
Maintenance (HVC).....	<b>245</b>	Drug and Alcohol Policy.....	<b>28</b>
Heavy Equipment Operator (EQOP).....	<b>236</b>	Eagle Mail.....	<b>13</b>
History		Early Alert Program .....	<b>39</b>
American (HSTA) .....	<b>245</b>	Early Childhood Education, AAS .....	<b>85</b>
World (HSTR).....	<b>245</b>	Economics Transfer .....	<b>86</b>
Honors (HONR) .....	<b>242</b>	Education	
Human Services (HS).....	<b>244</b>	Elementary Education Transfer .....	<b>87</b>
Individual Development (ID) .....	<b>247</b>	Secondary Education Transfer .....	<b>92</b>
Information Technology Systems (ITS).....	<b>247</b>	Electrical Technology CAS, AAS .....	<b>101</b>
Interdisciplinary Studies (IDS) .....	<b>247</b>	Electronics Technician CAS, AAS.....	<b>102</b>
Journalism (JRNL).....	<b>248</b>	Emergency Dispatcher CT.....	<b>103</b>
Kinesiology (KIN) .....	<b>249</b>	Emergency Management AAS .....	<b>104</b>
Languages		Engineering Transfer .....	<b>105</b>
French (FRCH).....	<b>238</b>	English Transfer .....	<b>108</b>
German (GRMN).....	<b>241</b>	Entrepreneurship Center.....	<b>273</b>
Italian (ITLN).....	<b>247</b>	Entrepreneurship, CAS .....	<b>109</b>
Russian (RUSS).....	<b>266</b>	Environmental Biology Transfer .....	<b>110</b>
Sign (SIGN).....	<b>267</b>	Environmental Science Transfer .....	<b>111</b>
Spanish (SPNS) .....	<b>267</b>	Environmental Studies Transfer .....	<b>112</b>
Liberal Studies and Humanities (LSH) .....	<b>251</b>	Facilities.....	<b>6</b>
Linguistics (LING).....	<b>249</b>	Federal Pell Grant.....	<b>17</b>
Literature (LIT) .....	<b>249</b>	Fees .....	<b>14</b>
Machining and Manufacturing Technology (MCH) .....	<b>253</b>	Financial Aid .....	<b>17</b>
Manufacturing (MFGT) .....	<b>255</b>	Financial Aid Refunds .....	<b>18</b>
Media Arts (MART) .....	<b>253</b>	Firearms Technology, CT .....	<b>113</b>
Music (MUSI) .....	<b>255</b>	Flathead Valley Community College Foundation, Inc.....	<b>275</b>
Music Technology (MUST) .....	<b>259</b>	Forensic Science Transfer .....	<b>114</b>
Native American Studies (NASX) .....	<b>259</b>	Forestry Transfer .....	<b>115</b>
Natural Resources Science and Management (NSRM) .....	<b>262</b>	General Education Core.....	<b>32</b>
Nondestructive Testing (NDTE).....	<b>259</b>	General Education Core Curriculum .....	<b>47</b>
Nursing (NRSNG) .....	<b>260</b>	Geography Transfer.....	<b>116</b>
Nutrition (NUTR).....	<b>262</b>	Geology Transfer .....	<b>118</b>
Parks, Tourism, and Recreation Management (PTRM) .....	<b>266</b>	Goldsmithing and Jewelry Arts, AAS.....	<b>119</b>
Pharmacy (PHAR).....	<b>262</b>	Governance .....	<b>5</b>
Philosophy (PHL) .....	<b>263</b>	Grades .....	<b>37</b>
Photography (PHOT).....	<b>263</b>	Graduation Application .....	<b>40</b>
Physics (PHSX).....	<b>264</b>	Graduation Waivers and Substitutions.....	<b>40</b>
Psychology (PSYX) .....	<b>265</b>	Graphic Design, AAS .....	<b>120</b>
Public Safety Dispatch (PSD) .....	<b>265</b>	Graphic Design, CAS .....	<b>121</b>
Religious Studies (RLST) .....	<b>266</b>	Gunsmithing Program .....	<b>274</b>
Sociology (SOCI) .....	<b>267</b>	Health and Human Performance Transfer .....	<b>122</b>
Special Education (EDSP) .....	<b>231</b>	Health Care Informatics Transfer .....	<b>125</b>
Statistics (STAT).....	<b>269</b>	Health Care Office Management, AAS.....	<b>126</b>
Surveying (SRVY).....	<b>267</b>	Health Information Technology	
		Implementation Specialist, CT (online).....	<b>127</b>
		Health Insurance .....	<b>23</b>
		Health Occupations, CT .....	<b>128</b>
		Heating, Ventilation and Air Condition, CAS .....	<b>129</b>
		Heavy Equipment Operator, CAS.....	<b>130</b>
		History Transfer.....	<b>131</b>
		Human Services Transfer.....	<b>132</b>



Human Services, AAS.....	134	Pre-Physical Therapy Transfer.....	171
Immunizations.....	9	Pre-Veterinary Medicine Transfer.....	172
Independent Study.....	37	Professional Development.....	274
In-District Students.....	10	Psychology Transfer.....	173
Industrial Machine Technology AAS, CAS.....	135	Radiologic Technology, AAS.....	175
Industrial Maintenance Tier I, CT.....	137	Refund of Tuition and Per Credit Fees.....	15
Industrial Maintenance Tier II, CT.....	137	Refund Schedule.....	16
Information Technology, AAS.....	138	Registered Nursing, ASN.....	177
In-State Students.....	10	Registration.....	12
Instructional Media Services.....	24	Related Instruction.....	42
Integrated Agriculture and Food Systems, AAS.....	139	Release of Information.....	26
International Baccalaureate (IB).....	35	Repeating Courses.....	36
International Students.....	9	Residency.....	10
Internships.....	24	Residency Exchange/WUE.....	11
Kid's College.....	274	Resource Conservation Transfer.....	178
Learning Center.....	20	Running Start.....	9
Liberal Studies Transfer.....	140	Scholarships.....	18
Library.....	23	Sexual Harassment Policy.....	28
Lincoln County Campus.....	7	Small Business Development Center.....	274
Lincoln County Campus Program Offerings.....	54	Small Business Management, AAS.....	179
Machinist Technician Tier I, CT.....	135	Sociology Transfer.....	180
Machinist Technician Tier II, CT.....	135	Student Activities and Development.....	24
Machinist Technician Tier III, CT.....	136	Student Code of Conduct.....	27
Machinist Technician Tier IV, CT.....	136	Student Complaints.....	27
Machinist Technician, CAS.....	135	Student Consumer Information.....	29
Marketing/Sales Specialist, CAS.....	141	Student Health Clinic.....	23
Math Waiver/Substitution Policy.....	36	Student Housing.....	7
Mathematics Transfer.....	142	Student Resources.....	22
Medical Assistant, AAS.....	143	Student Rights and Responsibilities.....	26
Medical Coding, AAS.....	145	Study Abroad.....	25
Medical Transcription, CAS (in moratorium).....	146	Substance Abuse Counseling, AA.....	182
Medical Withdrawal.....	39	Support Professional, AAS.....	183
Military Credits.....	33	Surgical Technology, AAS.....	184
Mission.....	4	Surveying, AAS.....	186
Montana Superhost.....	274	Table of Contents.....	1
Music Transfer.....	147	Teacher Renewal Units.....	274
Natural Resources Conservation and Management, AAS.....	149	Textbook Reservations.....	22
Non-Credit Classes.....	273	Textbooks.....	22
Nondestructive Testing, CAS.....	150	The Honors Program.....	25
Online Courses.....	36	Theatre Arts Transfer.....	187
Online Non-Credit Classes.....	273	Tobacco-free Policy.....	28
Out-of-State Students.....	10	Transcripts.....	32
Paramedicine, AAS.....	151	Transfer Agreements.....	30
Parks, Tourism, and Recreation Management Transfer.....	153	Transfer Appeal Process.....	32
Patient Relations Specialist, CT.....	154	Transfer Programs.....	53
Payroll Accounting, CAS.....	155	Transfer to Other Institutions.....	30
Personal Trainer, CAS.....	156	Tuition and Fees.....	13
Personnel.....	276	Veterans Benefits.....	19
Pharmacy Technology, CT.....	157	Veterans Center.....	25
Pharmacy Transfer.....	158	Waiver of Regulations.....	28
Physical Therapist Assistant, AAS.....	159	Web Technology AAS.....	188
Physics Transfer.....	161	Welding (WLD/WLDG).....	270
Placement Tests.....	11	Welding and Fabrication Technology CT, CAS, AAS.....	189
Political Science Transfer.....	162	Welding and Inspection Technology AAS.....	190
Practical Nursing, AAS.....	163	Wildlife Biology Transfer.....	191
Pre-Dental Transfer.....	165	Withdrawal.....	39
Pre-Medicine Transfer.....	166	Withdrawal by Instructor.....	39
Pre-Nursing Model Curriculum.....	168	Work Study.....	17
Pre-Nursing Transfer.....	169	Workforce Training.....	274



