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Every effort has been made to assure the accuracy of the information in this publication. Students are advised, however, that such information is subject to change. Therefore, they should consult the appropriate academic department or administrative offices for current information.

The provisions of this publication are subject to change without notice and do not constitute an irrevocable contract between any student or applicant for admission and the Flathead Valley Community College. The College is not responsible for any misrepresentation of its requirements or provisions that might arise as a result of errors in the preparation of this publication.

Flathead Valley Community College has reserved the right to add, amend, or repeal any of its regulations and rules in whole or in part, at such times as it may choose. Nor shall this document be construed as an abridgment or limitation of any rights, powers, or privileges of the Board of Trustees.

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.

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 2016.

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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.

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Academic Calendar

Fall Semester 2017

August 10 (Th)	Tuition Due: Registered Students
August 18 (F)	Application Deadline for Fall Semester 2017 (Degree and Non-degree Students)
August 21-25 (M-F)	ECC Closed
August 22-24 (T-Th)	Pick up Reserved Textbooks
August 23 (W)	College In-Service (College closed from 8:00 - 10:00 a.m./ECC Closed)
August 28 (M)	Semester Begins
September 4 (M)	Labor Day Holiday (College & ECC Closed)
September 5 (T)	Last Day to Register or Add Full-Semester Classes without Instructor's Signature
September 8* (F)	Last Day to Return Textbooks for a Full Refund in College Bookstore
September 11 (M)	Last Day to Add Full-Semester Classes (Instructor's Permission Required)
September 11 (M)	Last Day to Drop Full-Semester Classes and Receive a Partial Refund
September 18 (M)	Last Day to Drop Full-Semester Classes without a "W" Grade Recorded; Last Day to Change Residency Status
October 9 (M)	Columbus Day (Classes will meet.)
October 10 (T)	Last Day to Change Degree/Major
November 1 (W)	Registration Begins, Spring 2018: Sophomores
November 2 (Th)	Registration Begins, Spring 2018: Returning Students
November 10 (F)	Registration Begins, Spring 2018: New Degree-Seeking Students
November 10 (F)	Veterans Day Observed (Classes will meet.)
November 16 (Th)	Last Day to Drop or Request/Rescind an Audit Grade for Full-Semester Classes
November 17 (F)	Registration Begins, Spring 2018: Running Start and New Non-degree Students
November 23-24 (Th-F)	Thanksgiving Holiday (No Classes; College & ECC Closed)
December 1 (F)	Graduation Applications Due, Spring 2018
December 7-8, 11-15*	Textbook Sell-Back in College Bookstore
December 12-15 (T-F)	Finals
December 15 (F)	Textbook Rentals Due in Bookstore by 5:00 p.m.
December 15 (F)	Semester Ends
Dec 25-Jan 2	Semester Break (College & ECC Closed)

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

Spring Semester 2018

January 3-19	Interim Session
January 5 (F)	Tuition Due: Registered Students
January 11 (Th)	Application Deadline for Spring Semester 2018 (Degree and Nondegree Students)
January 15 (M)	Martin Luther King Day Holiday (College & ECC Closed)
January 16-18 (T-Th)	Pick-up Reserved Textbooks
January 17 (W)	College In-Service (College Closed from 8-10 a.m.; ECC Closed)
January 22 (M)	Semester Begins
January 29 (M)	Last Day to Register or Add Full-Semester Classes without Instructor's Signature
February 2 (F)*	Last Day to Return Textbooks for a Full Refund in College Bookstore
February 5 (M)	Last Day to Add Full-Semester Classes (Instructor's Permission Required)
February 5 (M)	Last Day to Drop Full-Semester Classes and Receive a Partial Refund
February 9 (F)	Last Day to Drop Full-Semester Classes without a "W" Grade Recorded; Last Day to Change Residency Status
February 19 (M)	Presidents' Day Holiday (No Classes; College & ECC Closed)
March 1 (Th)	Registration Begins, Summer 2018: All Students--New, Returning, Running Start
March 5 (M)	Last Day to Change Degree/Major
March 26-30 (M-F)	Spring Break (No Classes)
April 2 (M)	Registration Begins, Fall 2018: Sophomores
April 3 (T)	Registration Begins, Fall 2018: Returning Students
April 17 (T)	Registration Begins, Fall 2018: New Degree-Seeking Students
April 18 (W)	Last Day to Drop or Request/Rescind an Audit Grade for Full-Semester Classes
May 1 (T)	Graduation Applications Due for Summer and Fall 2018
May 7 (M)	Registration Begins, Fall 2018: Running Start and New Non-degree Students
May 10-11, 14-17*	Textbook Sell-Back in College Bookstore
May 14-17 (M-Th)	Finals
May 17 (Th)	Textbook Rentals Due in Bookstore by 5:30 p.m.
May 17 (Th)	Semester Ends
May 18 (F)	Commencement

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

Summer Semester 2018

May 18 (F)	Tuition Due: Registered Students
May 18 (F)	Application Deadline for Summer Semester 2018 (Degree and Non-degree Students)
May 24-25 (Th-F)	Pick-up Reserved Textbooks -- Sessions A and B
May 28 (M)	Memorial Day Holiday (College & ECC Closed)
May 29-June 29	Session A
May 29-August 3	Session B
May 31 (Th)	Last Day to Return Textbooks with Receipt for a Full Refund in College Bookstore -- Sessions A and B
June 5 (T)	Last Day to Register or Add Full-Semester Classes without Instructor's Signature -- Session B
June 12 (T)	Last Day to Add Full-Semester Classes (Instructor's Permission Required) -- Session B
June 12 (T)	Last Day to Drop Full-Semester Classes and Receive a Refund -- Session B (See Refund Schedule)
June 12 (T)	Last Day to Drop Full-Semester Classes without a "W" Grade Recorded -- Session B; Last Day to Change Residency Status
June 25 (M)	Last Day to Change Degree/Major
July 2-August 3	Session C
July 4 (W)	Fourth of July Holiday Observed (College & ECC Closed)
July 5* (Th)	Last Day to Return Textbooks with Receipt for a Full Refund in College Bookstore -- Session C
July 17 (T)	Last Day to Drop or Request/Rescind an Audit Grade for Full-Semester Classes -- Session B
August 1-3 (W-F)*	Textbook Sell-Back in College Bookstore
August 3 (F)	Textbook Rentals Due in College Bookstore by 3:00 p.m.
August 3 (F)	Semester Ends

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

About FVCC

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

- Transfer preparation;
- Workforce preparation;
- Developmental education; and
- Community education.

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.

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 CAS 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.

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 Koocanusa 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 and Registration

Admissions

www.fvcc.edu/admissions

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 Registrar.

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 requested.

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 Student Support Center for verification)*;
2) Official copies of all college transcripts;
3) MMR immunization records for anyone born on or after January 1, 1957;
4) Residency verification when requested; and
5) College placement scores.

*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 Registration Office by the appropriate deadlines. Currently, our selective programs include:

- Brewing Science and Brewery Operations;
- Culinary Arts;
- Firearms Finishing;
- Firearms Technology;
- Paramedicine;
- Pharmacy Technology;
- Physical Therapist Assistant;
- Practical Nursing;
- Radiologic Technology;
- Registered Nursing; and
- Surgical Technology.

Application deadlines and requirements for admission into selective programs vary by program. Contact the Student Support Center by calling (406) 756-3880 for more information.

Placement Tests
Degree-seeking students, as well as any students planning to enroll in math, English, or classes with placement prerequisites are required to complete placement tests. Testing information can be found online and in the Student Portal. The tests are used for placement purposes only.

Advisors use placement test scores to determine accurate course placements which maximize students' successes. Test scores guide placement in specific courses, as well as evaluate preparation for courses with significant reading demands. Scores are not kept on the students' transcripts and do not impact grades.

Call the Student Support Center at (406) 756-3880 with questions about placement tests.

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:

Contact the Registrar by calling (406) 756-3845 to petition the Admissions and Registration Office for an exception.

Complete the following:

Provide written permission from parents;

Complete placement testing and call (406) 756-3880 to meet with a Student Support Center advisor and have scores evaluated to determine college readiness. (Subject to federal guidelines for "Ability to Benefit");

Submit a non-degree Application for Admission form and provide required immunization records; and

Obtain instructor's signature before registering for classes.

The applicant should also acknowledge the following guidelines:

A maximum of six credits can be taken the first term;

He/she will be enrolled as "non-degree" status until he/she has reached 16 years of age and has successfully completed the GED/HiSET or high school equivalency diploma. At that point, the student can be enrolled as "degree" status;

Because of federal regulations, financial aid is not available until he/she is 16 years of age; and

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.

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/HiSET certificate or high school equivalency diploma or proof of completion of FVCC placement tests. Call the Student Support Center 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. Each international applicant is required to furnish the following in order to be considered for admission as a full-time/degree-seeking student:

1) Completed International Student Application for Admission. There is no cost associated with this application.
2) Proof of English Proficiency: FVCC accepts TOEFL, IELTS, EIKEN, ELS scores from accredited testing services. A minimum 61 IBT (internet-based) TOEFL test (or equivalent) are acceptable standards. Note: Canadian students are not required to submit English proficiency scores.
3) Proof of completion of the equivalent of an American high school education.
4) Certificate of Financial Responsibility. This financial guarantee can be either a "Declaration of Finances" or other evidence of funds necessary to cover the annual cost of attendance at FVCC (approximately $18,200), or, if sponsored by a US citizen or permanent resident, a USCIS Affidavit of Support (Form I-134).
5) Physician-validated immunization record for two separate vaccinations for measles, mumps, rubella, and a tuberculosis skin test.
6) Current evidence of a student accident and sickness insurance policy for each semester at FVCC must be presented before a student can start attending courses.
7) Copy of valid passport (and, if applicable, student visa).

After an applicant has submitted all of the above items, 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" or "M-1"student status, which will allow the applicant to obtain a student visa at the US Embassy of his/her home country. Depending on the applicant's country of origin, this process may take a minimum of six weeks.

International students transferring from other US institutions should contact the FVCC Office of International Student Services directly at international@fvcc.edu to obtain admission and I-20 transfer instructions.

All international students pay out-of-state tuition.

Running Start

www.fvcc.edu/runningstart

The Running Start program provides eligible high school juniors, seniors, and those students at least 16 years of age the opportunity to get an affordable "running start" on their college education. Classes are offered at a significantly reduced cost. Students eligible for Running Start will be assessed the appropriate running start tuition until the student graduates from high school or home school or through age 19, whichever occurs first. 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 Coordinator, High School Relations 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 Office in BH 111, or call (406) 756-3851.

Change of Residence Status

An individual requesting a residency status change needs to submit a Residency Status Change Form to the Admissions and Records Office prior to registering for the upcoming semester. Late requests for residency changes can be submitted up until the 15th class day from the start of fall and spring semesters, or the 10th class day of summer semester. Any requests made after this date will be applied to the next 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 Office at (406) 756-3851 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 Office no later than **two weeks before registration. WUE participants must be degree-seeking students, maintain a 2.5 cumulative GPA, and be enrolled as a full-time student.**

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 Registration 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.

Registration

www.fvcc.edu/registration

How to Register

To register for classes, a student is required to

1) Have a complete admissions file. If it has been two or more years since a student last attended FVCC, he or she will need to complete a Re-Admit Application, available at www.fvcc.edu/apply;
2) Review placement requirements in the Student Portal, under Admissions Status, Placements and, if necessary, enroll in the online Reading & Writing Placement;
3) Review the semester course schedule online at www.fvcc.edu; and
4) New degree-seeking students will meet with a Student Support Center advisor, while returning students will meet with their assigned advisor in order to register. Login to the Student Portal to obtain the name of the assigned advisor. The advisor is listed on the homepage. To schedule an appointment with a Student Support Center advisor call (406) 756-3880.

The 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 are required to make arrangements for payment of tuition and fees. See the academic calendar for specific dates and deadlines.

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 begun.

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.

Registration

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

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. Student access is limited. Students should stop by the Admissions Office or call (406) 756-3848 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 sexual assault 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.

Haven/AlcoholEdu

All new degree-seeking students are required to complete Haven (or Haven Plus), a sexual assault prevention course. Additionally, all new degree-seeking students 21 years of age or younger are required to complete AlcoholEdu, an alcohol abuse prevention course prior to registering for future classes. All students 22 years of age or older are welcome and encouraged, but not required, to complete AlcoholEdu. Additionally, all students are welcome to complete Transit, a financial literacy program.

Change of Class Schedule

A student who decides to change his/her class schedule:

1) During the first week of classes, can make course changes through the Student Portal.
2) After the first week of classes, will require a schedule change form from the Registration Office. The completed form must be turned in to the Registration Office by the posted deadlines for the schedule change to occur.

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 length of the semester for fall and spring.) **Failure to attend class DOES NOT constitute withdrawal.**

In order to prevent summer semester classes and 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 classes that meet the full length of the semester dropped after the second week of the semester. (See refund schedule.)

Change of Major
Currently enrolled students who wish to change their major must submit their change through the Student Portal within 30 business days of the start of the semester. After this date, the major change will be posted for the next semester.

Cancellation of Courses
FVCC reserves the right to cancel any course through the first week of the class due to low enrollment.

Changes in Student Records
Effective fall semester 2017, the maximum time frame to petition a revision/change to student transcripts or records is within one year of the semester in question. For name changes, the student must provide official documentation, such as court documents, updated social security card or valid 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.

For questions concerning Eagle Mail, please contact the MIS Help Desk at (406)756-3930.

Tuition, Fees and Financial Aid

Tuition

www.fvcc.edu/tuition

Semester Tuition and Fee Schedule
Tuition and Mandatory Fees vary based on the student's residency status.

Approximate semester costs for the 2017-2018 academic year are shown below (for a full-time, in-district student with 14 to 18 credits):

Category	Average Cost
Tuition	*$1690*
Mandatory Fees	*$587*
Course/Lab Fees	*$140*
Books/Supplies	*$500*
TOTAL (approximate)	$*2917*

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, search "tuition and fees," for current fee amounts. Note the mandatory fees are subject to increase in the 2017-2018 academic year.

Activity Fee
A per credit activity fee is administered by Student Government to support programs, services and activities for FVCC students. Currently, $2 per credit for the 2016-2017 academic year.

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. Currently, $16.30 per credit for the 2017-2018 academic year.

Equipment Fee
A per credit equipment fee is assessed to assist FVCC in maintaining and updating instructional equipment. Currently, $6.30 per credit for the 2017-2018 academic year.

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. Currently, $2.70 per credit for the 2017-2018 academic year.

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. Currently, $45 per semester for the 2016-2017 academic year.

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. Currently $11.40 per credit for the 2017-2018 academic year.

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/tuition, 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
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 up to a week 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.

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 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 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.

Discounts and Waivers

Running Start
Classes taken as part of the Running Start program are offered at a reduced tuition. See www.fvcc.edu and search "Running Start tuition." Payment 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.

Refunds

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, 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:**
Courses that last at least 63 calendar days	
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:

Courses that last fewer than 63 calendar days	
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 begun.

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

www.fvcc.edu/financialaid

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/HiSET.
- 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 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.
- 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.
- For more detailed SAP information, please visit our website at www.fvcc.edu/financialaid.

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. This application can take three to four weeks to process, so early application is encouraged.

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

When To Apply
Students must apply for financial aid each academic year. Applications are available after October 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. Students are notified of their awards beginning in March.

Federal and State Aid
Flathead Valley Community College administers a variety of government financial assistance programs for degree-seeking students. 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 $5,920 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.

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.

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 www.fvcc.edu/loans 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. Visit our website at www.fvcc.edu/loans 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 the start of the semester.

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 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 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 www.fvcc.edu/scholarships. Scholarship deadlines exist throughout the calendar year; however, for priority consideration apply by February 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" and "Timber Alerts" as they become available.

Veterans Benefits

www.fvcc.edu/veterans

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 Blake Hall or by calling (406) 756-3982. 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 or the Fry Scholarship.
- 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. This program is being "sunsetted" by the VA as of 11/14/2016.
- The post-9/11 Veterans Educational Assistance Act of 2008 or "New GI Bill" provides benefits for veterans who have at least 90 days of aggregate active duty service after September 10, 2001, and are still on active duty, or who are honorably discharged or were discharged with a service-connected disability after 30 days. Veterans with eligibility for the Post-9/11 GI Bill and any other GI Bill program must make an irrevocable election of the Post-9/11 GI Bill before receiving any benefits. The Post-9/11 GI Bill has a few specific components that are unavailable in other GI Bill programs: Yellow Ribbon Program and Transfer of Entitlement Options.
- 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 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 an 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 2017/2018 academic year. Visit 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.

Section 702 of Veterans Access, Choice and Accountability Act of 2014 allows a "covered individual" to be charged at the in state tuition rate. A "covered individual" is a veteran, individual using transferred benefits, or individual using benefits under the Fry Scholarship who enrolls in the school within three years of discharge or death in the line of duty of a Service member following a period of active duty service of 90 days or more. Students maintain covered individual status as long as they are using Post 9/11 GI Bill (Chapter 33) or MGIB-AD (Chapter 30) benefits and remain continuously enrolled at the SAME public university.

Student Resources

Student Support Center

www.fvcc.edu/student-support-center

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

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

- Academic Advising and Coaching;
- Adult Basic Education: Adult Student Support;
- Career Advising and Exploration;
- Career Development: Job Search Assistance/Internships;
- Disability Services;
- Mental Health Counseling;
- Testing and Proctoring;
- TRIO Student Support Services Program;
- TRIO Education Opportunity Center; and
- Tutoring Services and Tutoring Labs: Math and Science, Reading and Writing.

Academic Advising and Coaching
Learning Resource Center, Room 129
For appointments, call (406) 756-3880.

Student Support Center Academic Advisors, in coordination with Faculty Advisors, provide initial advising for Associate of Arts, Associate of Science, Associate of Applied Science, certificate and transfer students.

Academic Advisors in the Student Support Center provide admissions assistance, new student academic advising and degree planning, exploring major appointments, general financial aid and scholarship information, and transfer assistance. Academic Advisors also assist students in their transition to college and can coach students in basic academic skills including time management, effective study techniques, and test-taking strategies.

Faculty Advisors specific to the student's program of study are assigned to a student shortly after he or she determines a degree or certificate program. Faculty Advisors are a student's primary professional and academic resource at FVCC.

Adult Education
Funded with federal, state, and local dollars, the free Adult Education classes help students improve their reading, writing, math, critical thinking, and computer skills to obtain a high school equivalency diploma, find employment, retain employment, or build skills to enter postsecondary education.

Flathead County

Student Support Center*, Learning Resource Center, Room 126 (406) 756-3884, mgirkins@fvcc.edu*

Lincoln County

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

The Adult Education Center offers FREE day and evening classes in Flathead and Lincoln counties. The center assists individuals 16 years of age and older who wish to

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

HiSET testing 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, registration and questions.

Career Advising and Development
Learning Resource Center, Room 129
For appointments, call (406) 756-3880

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.

The Career Advisors is a resource for students interested in finding either full or part-time employment or credit internships within their program of study. Services available to FVCC students and alumni include:

- Online job board listing active jobs from employers who want to hire FVCC students
- Job searching assistance through individual appointments:
- Resumes, online templates
- Interviewing
- Effective job search techniques
- Mock interviews
- Career events: Job Fair
- Employer research
- Occupational outlook information
- Career Coach: Online information with local data on job forecasts, wages and who's hiring.

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

The Disability Services Coordinator assists in creating 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 Student Support Center and meet with the Disability Services Coordinator 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 for alleged discrimination concerning program, activity, service or physical accessibility at FVCC. Copies of this procedure may be obtained from the Student Support Center and the Disability Services Coordinator.

Mental Health Counseling
Learning Resource Center, Room 129
For appointments, call (406) 756-3880

FVCC's Mental Health Counselor is available from 8 to 5 Monday through Friday year-round and during college breaks. Counseling services are confidential and not considered part of a student's academic record. They are offered to students enrolled in credit courses, free of charge.

Counseling services can offer assistance with

- Support for emotional and personal concerns;
- Coping with stress and anxiety;
- Adjusting to school and life changes; and
- Overcoming academic barriers to success.

Proctored Testing
Learning Resource Center, Room 123A
Proctored Test Scheduling: www.fvcc.edu/proctoring

Currently, campus-based test proctoring is offered at no cost for students taking Eagle Online courses, FVCC hybrid courses, make-up tests for any course, and some workforce/professional certification tests. Computer-based tests or written pencil/paper tests can be accommodated. For more information about proctored tests contact the Student Support Center, (406) 756-3880.

TRIO: Student Support Services
Learning Resource Center, Room 129
For appointments or questions, call (406) 756-3880

The Flathead Valley Community College TRIO Student Support Services program provides comprehensive academic support to selected first-generation, low-income college students and/or students with disabilities. Our goal is to offer the support necessary to empower students to succeed and achieve their personal and academic goals.

The TRIO Student Support Services program assists eligible college students to earn a certificate or degree and/or transfer to a four-year degree program. Funded by the U.S. Department of Education, TRIO Student Support Services offers an array of services designed to make a student's college career a success. FVCC's TRIO Student Support Services is a supportive community of peers with an academic focus.

Student Support Services include

- Personalized academic, career, and transfer advising;
- Peer-mentoring program;
- Tutoring labs to build skills in reading and writing;
- Individual and group tutoring to foster academic success;
- Transition to college and career readiness courses designed for TRIO students;
- Financial aid/scholarship information and assistance with FAFSA application;
- Study skills workshops and academic coaching;
- Fully funded transfer trips to Montana universities;
- Volunteer and leadership opportunities; and
- TRIO community events.

Applications for the TRIO program are available in the Student Support Center, Learning Resource Center Building, Room 129.

Tutoring Labs and Tutoring Services
Learning Resource Center
Math and Science Lab (Room 134 and 148) and Reading and Writing Lab (Room 147)

Flathead Valley Community College provides learning labs as a free service of the Student Support Center and are designed to meet people at the point of their personal academic needs. Students may use any or all of the labs by dropping in or by making appointments with the lab instructors.

The FVCC Math and Science Labs, located in the Learning Resource Center, Rooms 134 and148, respectively, are available to all students for free assistance in math and science coursework. Math and Science Lab tutors are available on a drop-in basis for the following purposes:

- Tutoring in math concepts, problems, and homework assistance;
- Test preparation and review;
- Computer access to online homework assignments;
- Assistance with biology, chemistry and other science courses;
- Individual or group study; and
- Exam preparation and review.

The FVCC Reading and Writing Lab, located in the Learning Resource Center Building, Room 147, is available to all students for free one-on-one help:

- Proofreading;
- Using correct MLA, APA, Chicago, and other writing formats;
- Resumes;
- Cover letters;
- Scholarship letters;
- Accessing library databases;
- Computer skills;
- Resources for MLA and APA citations and formatting;
- Vocabulary strengthening;
- Note-taking strategies;
- Reading accuracy;
- Reading fluency;
- Critical reading skills;
- Printing;
- FVCC program applications/letters/essays; and
- Grammar/punctuation tutoring.

Individual Tutoring
For appointments or questions, call (406) 756-3880

The TRIO-eligible students can access free one-on-one tutoring. Noneligible students can discuss other arrangements with the TRIO Tutor Coordinator.

- Done most often by students who have already successfully completed the course
- Tutors may also be former students or professionals in the community
- Tutors meet one-on-one with students for up to three hours a week per subject
- All tutoring takes place on the FVCC campus

Student Resources

Dining Services
www.fvcc.edu/eaglesnest

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
www.fvcc.edu/bookstore

The FVCC Bookstore, located in Blake Hall, 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 Buyback 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 buyback funds are posted to student's account.
6) Textbooks not purchased at the FVCC Bookstore are not eligible for book buyback.
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 buyback 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.

Student Health Clinic
www.fvcc.edu/studenthealthclinic

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;
- 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; and
- Flu shots.

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
www.fvcc.edu/library

Flathead Valley Community College's library is located in LRC, Room 102. The library staff is there to help students find quality books, online academic journal articles, and websites to answer questions, help evaluate information, and support student research needs. The library is also a great place to come study or read newspapers and magazines. Not able to visit the library in person? The library offers extensive online resources, including academic journals, eBooks, and research guides for every subject.

Library services include

Borrowing: Materials can be checked out using an FVCC student ID card, or a library card, which is available at the Circulation Desk. Books check out for 28 days and DVDs check out for 14 days. Interlibrary loan materials have special due dates assigned by the loaning library.

Course Reserves: Faculty often place materials, such as textbooks and course-related articles, on reserve at the check-out desk. Most of these materials are for use in the library only, but must still be checked out with a library card. Some textbooks not on course reserves are available in the library's non-circulating collection of college textbooks.

Media Equipment: The library has a copier, fax machine and scanner available for student use.

Computers: Desktop computers and circulating laptops are available for student use. In addition, personal computers and mobile devices can connect to the wireless network and can be used for printing.

Collaborative Study Rooms: The library has two collaborative study rooms. Both study rooms contain whiteboards and overhead projectors which can be connected to laptops. To sign up for time in the study rooms, one member of each group must do so in person at the library. These rooms are limited to groups of 2-6 people for one hour at a time and can be reserved up to 10 days in advance.

Lost & Found: The Library has a lost-and-found cabinet located at the Circulation Desk.

Interlibrary Loan: Occasionally, students need books or articles that are not available in the library. Librarians at the Circulation Desk can usually help order these materials from other libraries. Interlibrary loan takes an average of three days for articles and ten days for books, although some hard-to-find items may take longer. Students are responsible for any fees associated with late, damaged, or lost materials. These fees are set by the lending library and vary. Students are notified by phone or e-mail when items arrive.

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 session hours are 8 a.m. - 5 p.m. Monday through Friday.

The Honors Program at Flathead Valley Community College
www.fvcc.edu/honors

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 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 placement test scores.

Veterans Center
www.fvcc.edu/veterans

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

Residence Life
www.fvcc.edu/student-housing
Email: reslife@fvcc.edu
Phone: (406)756-4586

On-campus student housing is comprised of one residence hall, which features studio and two-bedroom apartments for up to 124 full-time, degree-seeking students. All apartments are furnished with a stove, refrigerator, dishwasher, microwave, extra-large twin bed, dresser, chairs, and private bathroom. A student lounge, two laundry facilities, and areas to study are located throughout Founders Hall. Walking paths allow residents easy access to the rest of campus, as well as nearby retail stores and restaurants.

Residence Life strives to positively influence academic and personal growth by offering a variety of programs, both social and educational. Residents are encouraged to be an active part of the on-campus community. Through campus involvement, students will build relationships with neighbors and classmates to develop life-long skills.

Student Engagement Office
Blake Hall, Room 155, (406) 756-3908

The Student Engagement Office serves as a resource for all student organizations on campus as well as sponsors a variety of campus activities and events including Week of Welcome. Visit www.fvcc.edu/campus-guide/student-life/ for a current list of ways to get involved in such as participating in one of several student organizations, campus recreation and intramurals, service learning, and Logger Sports.

College Regulations

Student Rights and Responsibilities

Flathead Valley Community College 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 www.fvcc.edu/current-student/ 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 pertaining to a specific student:

- 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.

Complete directory information of students will be provided according to the Solomon Amendment.

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 academic information to other agencies or institutions that have requested the records and in which the student seeks or intends to enroll or is already enrolled so long as the disclosure is for purposes related to the student's enrollment or transfer.)

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 Student Support Center 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 Student Support Center advisor prior to registering each semester.

If a student has been on hiatus for three or more years, the probation status will be waived for the returning 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 Student Support Center advisor.

A non-degree-seeking student who has a cumulative GPA below a 2.0 will be limited to less than six (6) credits per semester, without developing a remediation plan with a Student Support Center advisor, until the student's cumulative GPA improves to a 2.0 or better.

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, harassment, sexual misconduct, stalking or retaliation are addressed in Board Policy Chapter 1 Section 60 and the Discrimination and Harassment Grievance Procedure. Copies of this procedure and the Student Complaint Form may be obtained from the Dean of Students or online at www.fvcc.edu/current-student/.

FVCC students are responsible for knowing the information outlined in this document. The College reserves the right to make changes to this code as necessary and once those changes are posted online, they are in effect. Students are encouraged to check online at www.fvcc.edu/current-student/ for current student policies and procedures.

CORE VALUES OF STUDENT CONDUCT

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

I. **Integrity:** College students exemplify honesty, honor and a respect for the truth in all of their dealings.

II. **Community:** College students build and enhance their community.

III. **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.

IV. **Respect:** College students show positive regard for each other, for property and for the community.

V. **Responsibility:** College students are given and accept a high level of responsibility to self, to others and to the community.

JURISDICTION

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 College retains conduct jurisdiction over students who choose to take a leave of absence, withdraw or have graduated for any misconduct that occurred prior to the leave, withdrawal or graduation. If sanctioned, a hold may be placed on the student's ability to re-enroll and /or obtain official transcripts and/or graduate and all sanctions must be satisfied prior to re-enrollment eligibility. In the event of serious misconduct committed while still enrolled but reported after the accused student has graduated, the College may invoke these procedures and should the former student be found responsible, the College may revoke that student's degree.

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. A substantial College interest is defined to include:

- Any situation where it appears that the student's conduct may present a danger or threat to the health or safety of him/herself or others; and/or
- Any situation that significantly impinges upon the rights, property or achievements of self or others or significantly breaches the peace and/or causes social disorder; and/or
- Any situation that is detrimental to the educational mission and/or interests of the College;

The *Code of Student Conduct* may be applied to behavior conducted online, via email or other electronic medium. Students should also be aware that online postings such as blogs, web postings, chats and social networking sites are in the public sphere and are not private. These postings can subject a student to allegations of conduct violations if evidence of policy violations is posted online.

The College does not regularly search for this information but may take action if and when such information is brought to the attention of College officials. However, most online speech by students not involving College networks or technology will be protected as free expression and not subject to this Code, with two notable exceptions:

- A true threat, defined as "a threat a reasonable person would interpret as a serious expression of intent to inflict bodily harm upon specific individuals";
- Speech posted online about the College or its community members that causes a significant on-campus disruption including speech that is obscene or defamatory.

The *Code of Student Conduct* applies to guests of the campus community whose hosts may be held accountable for the misconduct of their guests. Visitors to and guests of the College may seek resolution of violations of the *Code of Student Conduct* committed against them by members of College community.

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.

The withdrawal of a student facing an alleged violation of the Code of Student Conduct will not deprive the College of jurisdiction to determine whether there has been a violation and, if so, to impose appropriate sanctions.

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

VIOLATIONS OF THE LAW

Alleged violations of federal, state and local laws may be investigated and addressed under the Code of Student Conduct. When an offense occurs over which the College has jurisdiction, the College conduct process will usually go forward notwithstanding any criminal complaint that may arise from the same incident.

The College reserves the right to exercise its authority of interim suspension upon notification that a student is facing criminal investigation and/or complaint (additional grounds for interim suspension are outlined below). Interim suspensions are imposed until a hearing can be held, typically within two weeks. Within that time, the suspended student may request an immediate hearing from the Dean of Students to show cause why the interim suspension should be lifted. This hearing may resolve the allegation, or may be held to determine if the interim suspension should be continued. The interim suspension may be continued if a danger to the community is posed and the College may be delayed or prevented from conducting its own investigation and resolving the allegation by the pendency of the criminal process. In such cases, the College will only delay its hearing until such time as it can conduct an internal investigation or obtain sufficient information independently or from law enforcement upon which to proceed. This delay will be no longer than two weeks from notice of the incident unless a longer delay is requested in writing by the complaining victim to allow the criminal investigation to proceed before the College process.

Students accused of crimes may request to take a leave from the College until the criminal charges are resolved. In such

situations, the College procedure for voluntary leaves of absence is subject to the following conditions:

- The responding student must comply with all campus investigative efforts that will not prejudice their defense in the criminal trial; and
- The responding student must comply with all interim actions and/or restrictions imposed during the leave of absence; and
- The responding student must agree that, in order to be reinstated to active student status, they must first be subject to, and fully cooperate with, the campus conduct process and must comply with all sanctions that are imposed.

STANDARDS OF CONDUCT

The College considers the behavior described in the following sub-sections as inappropriate for the College community and in opposition to the core values set forth in this document. These expectations and rules apply to all students. The College encourages campus community members to report to College officials all incidents that involve the following actions. Any student found to have committed or to have attempted to commit the following misconduct is subject to the sanctions outlined in Conduct Procedures.

I) **Integrity:** College students exemplify honesty, honor and a respect for the truth in all of their dealings. Behavior that violates this value includes, but is not limited to:
   1) Falsification: Knowingly furnishing or possessing false, falsified or forged materials, documents, accounts, records, identification or financial instruments;
   2) Academic Dishonesty: Acts of academic dishonesty as outlined in the catalog;
   3) Unauthorized Access: Unauthorized access to any College building (i.e. keys, cards, etc.) or unauthorized possession, duplication or use of means of access to any College building or failing to timely report a lost College-issued student identification card or key;
   4) Collusion: Action or inaction with another or others to violate the Code of Student Conduct;
   5) Trust: Violations of positions of trust within the community;
   6) Election Tampering: Tampering with the election of any College-recognized student organization:
   7) Taking of Property: Intentional and unauthorized taking of College property or the personal property of another, including goods, services and other valuables;
   8) Stolen Property: Knowingly taking or maintaining possession of stolen property;

II) **Community:** College students build and enhance their community. Behavior that violates this value includes, but is not limited to:
   9) Disruptive Behavior: Substantial disruption of College operations including obstruction of teaching, research, administration, other College activities, and/or other authorized non-College activities which occur on campus;
   10) Rioting: Causing, inciting or participating in any disturbance that presents a clear and present danger to self or others, causes physical harm to others, or damage and/or destruction of property;
   11) Unauthorized Entry: Misuse of access privileges to College premises or unauthorized entry to or use of buildings, including trespassing, propping or unauthorized use of alarmed doors for entry into or exit from a College building;
   12) Trademark: Unauthorized use (including misuse) of College or organizational names and images;
   13) Damage and Destruction: Intentional, reckless and/or unauthorized damage to or destruction of College property or the personal property of another;
   14) IT and Acceptable Use: Violating the College Acceptable Use Policy;
   15) Gambling: Gambling as prohibited by the laws of the State of Montana. Gambling may include raffles, lotteries, sports pools and online betting activities;
   16) Weapons: Possessing, concealing, brandishing, or giving the appearance of being in possession of a weapon. A weapon is defined as an instrument, article, chemical or other substance that is designed, used or likely to be used to commit a criminal offense, cause bodily harm or property damage including, but not limited to, any type of firearm, a knife with a blade 4 or more inches in length, a sword, a straight razor, a throwing star, nun-chucks, or brass or other metal knuckles, or other potential dangerous items;
   17) Tobacco: Smoking or tobacco or e-cigarette use in any area of campus;
   18) Fire Safety: Violation of local, state, federal or campus fire policies including, but not limited to:
      a) Intentionally or recklessly causing a fire which damages College or personal property or which causes injury.
      b) Failure to evacuate a College-controlled building during a fire alarm;
      c) Improper use of College fire safety equipment; or
      d) Tampering with or improperly engaging a fire alarm or fire detection/control equipment while on College property. Such action may result in a local fine in addition to College sanctions;
   19) Animals: Animals, with the exception of service animals that provide assistance are not permitted on campus except as permitted by law.
   20) Wheeled Devices: Skateboards, roller blades, roller skates, bicycles and similar wheeled devices are not permitted to be used inside College buildings or on tennis courts. Additionally, skateboards and other wheeled items may not be ridden on railings, curbs, benches, or any such fixtures that may be damaged by these activities, and individuals may be liable for damage to College property caused by these activities.

III) **Social Justice:** Students recognize that respecting the dignity of every person is essential for creating and sustaining a flourishing college community. They understand and appreciate how their decisions and actions impact others and are just and equitable in their treatment of all members of the community. They act to discourage and challenge those whose actions may be harmful to and/or diminish the worth of others. Conduct violations within this category (items 21-33) will be addressed through the Discrimination Grievance Procedure. Conduct that violates this value includes, but is not limited to:
   21) Discrimination: Any act that materially interferes with any individual's employment, education, living environment or participation in a FVCC program based upon an individual's race, color, religion,

creed, political ideas, sex, gender identity, sexual orientation, age, marital status, veteran's status, service in the uniformed services as defined by state and federal law, physical or mental disability, national origin or ancestry except as authorized by law.

22) Harassment: Any unwelcome conduct based on actual or perceived status including: [race, color, religion, creed, political ideas, sex, gender identity, sexual orientation, age, marital status, veteran's status, service in the uniformed services as defined by state and federal law, physical or mental disability, national origin or ancestry except as authorized by law]. Any unwelcome conduct should be reported to campus officials, who will act to remedy and resolve reported incidents on behalf of the victim and community.
    a) Hostile Environment: Sanctions can and will be imposed for the creation of a hostile environment only when harassment is sufficiently severe, pervasive (or persistent) and objectively offensive that it unreasonably interferes with, limits or denies the ability to participate in or benefit from the College's educational or employment program or activities.
23) Retaliatory Discrimination or Harassment: Any intentional, adverse action taken by an responding individual or allied third party, absent legitimate nondiscriminatory purposes, against a participant [or supporter of a participant] in a civil rights grievance proceeding, student conduct or policy violation or other protected activity [under this Code].
24) Bystanding:
    a) Complicity with or failure of any student to [appropriately] address known or obvious violations of the Code of Student Conduct or law;
    b) Complicity with or failure of any organized group to [appropriately] address known or obvious violations of the Code of Student Conduct or law by its members.
25) Abuse of Conduct Process: Abuse or interference with, or failure to comply in, College processes including conduct and academic integrity hearings including, but not limited to:
    a) Falsification, distortion, or misrepresentation of information;
    b) Failure to provide, destroying or concealing information during an investigation of an alleged policy violation;
    c) Attempting to discourage an individual's proper participation in, or use of, the campus conduct system;
    d) Harassment (verbal or physical) and/or intimidation of a member of a campus conduct body prior to, during, and/or following a campus conduct proceeding;
    e) Failure to comply with the sanction(s) imposed by the campus conduct system;
    f) Influencing, or attempting to influence, another person to commit an abuse of the campus conduct system.

IV) **Respect:** College students show positive regard for each other and for the community. Behavior that violates this value includes, but is not limited to:

26) Harm to Persons: Intentionally or recklessly causing physical harm or endangering the health or safety of any person.
27) Threatening Behaviors:
    a) Threat: Written or verbal conduct that causes a reasonable expectation of injury to the health or safety of any person or damage to any property.
    b) Intimidation: Intimidation defined as implied threats or acts that cause a reasonable fear of harm in another.
28) Bullying and Cyberbullying: Bullying and cyberbullying are repeated and/or severe aggressive behaviors that intimidate or intentionally harm or control another person physically or emotionally, and are not protected by freedom of expression.
29) Hazing: Defined as an act that endangers the mental or physical health or safety of a student, or that destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group or organization. Participation or cooperation by the person(s) being hazed does not excuse the violation. Failing to intervene to prevent (and/or) failing to discourage (and/or) failing to report those acts may also violate this policy;
30) Intimate Partner/Relationship Violence: Violence or abuse by a person in an intimate relationship with another (also called domestic and/or dating violence);
31) Stalking: Stalking is a course of conduct directed at a specific person that is unwelcome and would cause a reasonable person to feel fear;
32) Sexual Misconduct: Includes, but is not limited to, sexual harassment, non-consensual sexual contact, non-consensual sexual intercourse, and/or sexual exploitation;
33) Public Exposure: Includes deliberately and publicly exposing one's intimate body parts, public urination, defecation, and public sex acts.

V) **Responsibility:** College students are given and accept a high level of responsibility to self, to others and to the community. Behavior that violates this value includes, but is not limited to:

34) Alcohol: Use, possession, or distribution of alcoholic beverages or paraphernalia except as expressly permitted by law and the College's Alcohol Policy;
35) Drugs: Use, possession or distribution of illegal drugs and other controlled substances or drug paraphernalia except as expressly permitted by law and the College's Drug Policy;
36) Prescription Medications: Abuse, misuse, sale, or distribution of prescription or over-the-counter medications;
37) Failure to Comply: Failure to comply with the reasonable directives of College officials or law enforcement officers during the performance of their duties and/or failure to identify oneself to these persons when requested to do so;
38) Financial Responsibilities: Failure to promptly meet financial responsibilities to the institution, including, but not limited to; knowingly passing a worthless check or money order in payment to the institution or to an official of the institution acting in an official capacity.
39) Arrest: Failure of any student to accurately report an off-campus arrest by any law enforcement agency for

any crime (including non-custodial or field arrests) to the Dean of Students within seventy-two (72) hours of release.

40) Other Policies: Violating other published College policies or rules.
41) Health and Safety: Creation of health and/or safety hazards (dangerous pranks, hanging out of or climbing from/on/in windows, roofs, etc.)
42) Violations of Law: Evidence of violation of local, state or federal laws, when substantiated through the College's conduct process.

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 thirty (30) calendar days after the complainant knew or reasonably should have known about the complaint. Complaints shall be filed upon the Student Appeals Complaint Form available with the Dean of Students.

RETALIATION

No retaliation 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.

* The FVCC Code of Student Conduct is adapted from The NCHERM Group Model Developmental Code of Student Conduct and is used here with permission.

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.

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/campus-safety.

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:

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

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

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.

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.

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/campus-safety

Drug and Alcohol Abuse Prevention
Drug and Alcohol Policy

Counselor: (406) 756-3886

Lincoln County Campus: (406) 293-2721

Registrar: (406) 756-3845

Family Educational Rights and Privacy Act (FERPA)
Student Rights and Responsibilities

Registrar: (406) 756-3845

Lincoln County Campus: (406) 293-2721

Financial Aid Information
Types of Aid

Financial Aid Office: (406) 756-3849

www.fvcc.edu/financialaid

General Information
Tuition and Fees
www.fvcc.edu/tuition

Academic Programs
www.fvcc.edu/academics

Disability Support Services
Program Coordinator, Disabilities Services: (406) 756-3881
www.fvcc.edu/disabilitysupport

Accrediting Agency - Northwest Commission on Colleges and Universities
www.nwccu.org

Graduation Completion Rate
Director, Institutional Research: (406) 756-3924

Refund Policy
College refund policy

Business Services Office: (406) 756-3831

Lincoln County Campus: (406) 293-2721

Withdrawal/Return of Title IV Funds

Financial Aid Office: (406) 756-3849

Lincoln County Campus: (406) 293-2721

Sexual Harassment Policy

Executive Director, Human Resources (406) 756-3841

Credits, Grading, Courses and Transfer

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 up to a week 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/portal. Transcripts are withheld if students have library fines or owe money to the college.

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 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 Registrar.

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 (student portal) or students can provide a self-addressed, stamped envelope to the Registration Office.

Students are required to meet course requirements to receive grades and credits.

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 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 *Equivalent to a "C" or better*	N/A
SA*	Satisfactory/Advance *The student has achieved the needed competencies to advance to a higher level course.*	N/A
SR*	Satisfactory/Repeat *The student has met individual expectations but must repeat before advancing to a higher level course.*	N/A
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 *The instructor has not submitted a grade for the student at the time of posting.*	N/A

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

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.

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 Registration 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 2017, the maximum time frame to petition a revision/change to student transcripts or records is within one year of the semester in question. 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 Registration 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 Registration 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 Registration Office.

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 Registration 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 Registration 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 Registration 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 Registration 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.

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 Registration Office with a completed medical withdrawal form. Forms are available in the Registration 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.

Courses

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. 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/online-education 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 www.fvcc.edu/online-education.

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. Desire2Learn also provides 24/7 technical support at 1-877-325-7778.

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 Instruction and Student Services 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 second 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 two weeks of the semester.

Transfer

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:

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;

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

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 Registration 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 Registration Office or agree to accept the credit.
5) If the division chair/program faculty agrees with the decision of the Registration Office, the student can appeal the decision to FVCC's Vice President of Instruction and Student Services.
6) The decision of the Vice President of Academic Affairs will be final.

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.**

Prior Learning/Course Challenge
A student admitted to FVCC may petition to challenge courses based on work done through private study and/or prior learning 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.

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.

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.

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

AP credits may be granted for the lecture portion of the course at the discretion of the appropriate college department; and

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 Registration Office for more information.

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

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.

Key

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

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

Math Waiver/Substitution Policy
Students with a math disability may apply to waive M 095~ and M 105, 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 the General Education Core Curriculum Writing 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 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 earn credit for WRIT 101W through AP, IB, and CLEP exams.

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.

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 general education core requirements are met.

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.

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.
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) Discuss the transfer process with Student Support Center advisors;
   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 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 Registration Office in Blake Hall. The transmittal 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 Registration Office. The Registration 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 Registration Office or from Montana Board of Regents' website at http://mus.edu/borpol/bor300/301-5-4.pdf.

Academic Requirements

Students' 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 Registration 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 Student Support Center advisors.

FVCC courses require college-level reading, as well as basic computer and typing skills. For every one credit hour students takes, they may expect to spend a minimum of 2-3 hours each week on coursework; therefore, a student enrolled in 15 credits should spend 30-45 hours per week, outside the classroom, engaged in studying, reading, writing and/or review of course materials.

Graduation Application

Graduation applications are due on December 1 for spring graduation and May 1 for summer and fall graduation. Students intending to graduate in the summer, but would like to attend the spring graduation ceremony will need to meet the December 1 graduation application deadline. Applications for Graduation are available from the Admissions and Registration Office in BH 111 or at www.fvcc.edu.

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 2017-2018 catalog can be used through summer 2023. 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 effect during the five-year period prior to their expected graduation.

Note: A student that has been on hiatus for at least one year will not be able to return to a program that is no longer offered at FVCC.

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 General Education Team 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 101 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 Student Support 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 Student Support 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.
- 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 major/degree by completing a change of major/advisor form at the Admissions and Records Office. Program changes submitted after 30 business days fromt he start of the semester will be applied to the next semester.
- Accept final responsibility for all decisions.
- Most courses assume proficiency in college reading and 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:

1. Completion of a minimum of 60 semester credit hours.
2. 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.
3. 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.
4. At least 20 semester credits earned at FVCC and the final 10 credits earned at FVCC.
5. A limit of 15 semester credits graded "S" may count toward the Associate of Applied Science degree. Some programs may further limit "S" grades.
6. 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:

1. Completion of a minimum of 30 semester credit hours for each certificate.
2. 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.
3. 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.
4. At least one-third of the program credits must be earned at FVCC.
5. 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 of Technical Studies Requirements (CTS)

To receive a Certificate of Technical Studies, the following must be met:

1. Completion of a minimum of 16 semester credit hours.
2. Completion of course requirements as outlined for the specific CT program listed in the "Programs" section of the catalog.
3. 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.
4. At least one-third of the program credits must be earned at FVCC.
5. 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.

Related Instruction Courses

Communications 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 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 *
NRSG 232 - Foundations of Nursing Credit(s): 3 *

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 *

Interactions Courses: (one course)

AGSC 202 - Practical Farm Production and Equipment: Fall Credit(s): 4
AGSC 202 - Practical Farm Production and Equipment: Spring Credit(s): 4
AHPT 105 - Introduction to Physical Therapist Assisting Credit(s): 3
AHST 255 - Advanced Surgical Clinical Credit(s): 10 *
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
BREW 199 - Capstone I: Brewing Methods III Credit(s): 5 *
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 *
NRSG 148 - Leadership Issues for Practical Nurses Credit(s): 2 *
NRSG 266 - Managing Client Care for the RN Credit(s): 2 *
NRSM 271GN - Conservation Ecology Credit(s): 3
SRVY 270 - Legal Principles in Surveying I Credit(s): 5 *

Quantitative Literacy Courses: (one course)

BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 *
BREW 150 - Brewhouse Processes 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 094~ - Quantitative Reasoning 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 120 - Mathematics with Health Care Applications Credit(s): 3 *
M 124 - Surveying Mathematics II Credit(s): 3 *
M 152M - Precalculus Algebra Credit(s): 3 *
M 153M - Precalculus Trigonometry Credit(s): 4

Note:

*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 **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			
					Total Credits:	

✓ Additional Degree Requirements

	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			
					Total Credits:	

✓ Major Requirements or Electives 20-24 Credits Grade Credits

			Total Credits:	

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

Total: 60

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			
					Total Credits:	

✓ Additional Degree Requirements

	MATHEMATICS (M) or NATURAL SCIENCE (NL, N, L)	6	6 credits from M, NL, N, or L courses			
					Total Credits:	

✓ Major Requirements or Electives 20-24 Credits Grade Credits

			Total Credits:	

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

Total: 60

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

To receive both transfer degrees (combined 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			
					Total Credits:	

✓ Additional Degree Requirements

	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			
					Total Credits:	

✓ Major Requirements or Electives 29-33 Credits Grade Credits

			Total Credits:	

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

Total: 75

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.

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.

Upon successful completion of the Communications requirement, students should be able to evaluate purpose and audience to create a well-developed, supported, and stylistically fluent response.

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 217CF - Oral Interpretation of Literature 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 *

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.

Upon successful completion of the Global Issues requirement, students should be able to demonstrate awareness of self as a member of a multicultural global community.

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
- 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
- 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

- PSCI 230G - Introduction to International Relations Credit(s): 3
- RLST 100G - Introduction to the Study of Religion Credit(s): 3
- RLST 206G - Origins of God 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 *

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. Upon successful completion of the Humanities requirement, students should be able to examine the nature of human experience and/or artistic expression.

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. Upon successful completion of the Fine Arts requirement, students should be able to examine the role of the Arts as a reflection of culture.

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
- 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 271H - Introduction to Science Fiction Literature Credit(s): 4
- LIT 285H - Mythologies 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
- MUSI 202H - Introduction to Music Literature Credit(s): 3
- 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
- ARTJ 210F - Jewelry and Metalsmithing I Credit(s): 3
- ARTJ 211F - Jewelry and Metalsmithing II 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 217CF - Oral Interpretation of Literature Credit(s): 3
- CRWR 110F - Beginning Fiction Credit(s): 3
- CRWR 111F - Beginning Poetry Credit(s): 3
- CRWR 212F - Introduction Nonfiction Workshop 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 132F - History of Rock and Roll Credit(s): 3
- MUSI 207FG - World Music Credit(s): 3
- PHOT 113F - Understanding Photography Credit(s): 3
- PHOT 154F - Exploring Digital 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

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.

Upon completion of the Mathematics requirement, students should be able to use mathematical techniques to problem solve.

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 105M - Contemporary Mathematics Credit(s): 3 *
- M 115M - Probability and Linear Mathematics 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 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 *

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.

Upon successful completion of the Natural Science requirement, students should be able to apply scientific concepts and methods of inquiry.

Complete two or more courses selected from the following. At least one course must be a conventional laboratory experience selected from Group NL.

Group N (Non-Conventional Lab):

- ANSC 100N - Introduction to Animal Science Credit(s): 3
- 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
- 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
- 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

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 104NL - Basic Human Biology with Lab Credit(s): 4
  and
- 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 220NL - General Botany Credit(s): 4
- BIOO 235NL - Rocky Mountain Flora Credit(s): 3
- BIOO 262NL - Introduction to Entomology Credit(s): 3 *
- CHMY 105NL - Explorations 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 *

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.

Upon successful completion of the Social Sciences requirement, students should be able to evaluate the legitimacy of multiple perspectives to reach an informed conclusion.

Complete six semester credits selected from the following. At least one 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 215A - Introduction to Sociology of the Family 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
- 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

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.

Upon successful completion of the Writing requirement, students should be able to demonstrate organization, coherence, and clarity in writing.

Complete three semester credits selected from the following:

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

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 https://ccn.mus.edu/search/

	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			
Total Credits = 30 semester credits					

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.

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.

All Programs of Study

Accounting Technology, AAS

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 *
- ☐ ACTG 298 - Internship 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 *
- ☐ BFIN 260 - Principles of Finance Credit(s): 4 *
- ☐ BMIS 270 - MIS Foundations for Business Credit(s): 3
- ☐ 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 Service Learning 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Ronnie Laudati, M.B.A.
LRC 129	BSS 127
(406) 756-3905	(406) 756-3990
jbullemer@fvcc.edu	rlaudati@fvcc.edu

Accounting Technology, CAS

(This program is also offered at the 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 150 - Accounting on Microcomputers Credit(s): 3 *
☐ ACTG 180 - Payroll Accounting Credit(s): 2 *
☐ ACTG 202 - Principles of Managerial Accounting Credit(s): 4 *
☐ ACTG 207 - Advanced Accounting on Microcomputers Credit(s): 2 *
☐ 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 Service Learning 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

- 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Accounting Transfer

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 *
- ☐ Electives Credit(s): 4-6 [1]
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 4
- ☐ Social Sciences (A) Requirement 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 *
- ☐ BGEN 235 - Business Law Credit(s): 4
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanites (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
- ☐ ECNS 202GB - Principles of Macroeconomics Credit(s): 3

Second Year Total: 31

Total Credits: 61

1 Depends on whether student took BMIS 211 or CAPP 131.

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

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 *
- ☐ BGEN 235 - Business Law Credit(s): 4
- ☐ ECNS 202GB - Principles of Macroeconomics 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
- ☐ 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: 33

Total Credits: 63-64

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

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Associate of Science Degree

Suggested course of study for 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
- ☐ 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
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 3
- ☐ Social Sciences (A) Requirement Credit(s): 3

First Year Total: 29

Second Year

- ☐ ACTG 201 - Principles of Financial Accounting Credit(s): 4 [1]
- ☐ ACTG 202 - Principles of Managerial Accounting Credit(s): 4 * [1]
- ☐ 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 *
- ☐ 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

  OR
- ☐ Natural Science (NL or N) Requirement Credit(s): 3
- ☐ Natural Science (NL or N) Requirement Credit(s): 4

Second Year Total: 31

Total Credits: 60

1 Students must earn a "C" or better to transfer this course to The University of Montana.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty 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.

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

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 100N - 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 *
- ☐ 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

Second Year Total: 31

Total Credits: 61

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Heather Estrada, Ph.D.
LRC 129	RH 108
(406) 756-3885	(406) 756-4182
rlamson@fvcc.edu	hestrada@fvcc.edu

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

- ☐ AGSC 241 - Field Crop Production Credit(s): 3 *
- ☐ BIOB 275N - General Genetics Credit(s): 4 *
- ☐ 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

Total Credits: 62

*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.

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 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 [1]
- ☐ BIOB 170N - Principles of Biological Diversity Credit(s): 3 * [2]
  and
- ☐ BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 *
- ☐ CHMY 121NL - Introduction to General Chemistry Credit(s): 4 * [3]
  OR
- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 * [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 [5]

First Year Total: 28-31

Second Year

- ☐ AGSC 241 - Field Crop Production Credit(s): 3 *
- ☐ 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 [6]
- ☐ 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 [7]

Second Year Total: 32

Total Credits: 60-63

1 Not required for Sustainable Livestock Production option.
2 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.
3 Not required for Agroecology option; take CHMY 141 instead.
4 Not required for Sustainable Livestock Production option; take CHMY 121 instead.
5 Students choosing to pursue the Agroecology option should take CHMY 143.
6 Students pursuing the Sustainable Livestock Production option should take COMX 111.
7 Students pursuing Sustainable Food Systems options should take SOCI 101.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Heather Estrada, Ph.D.
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(406) 756-3885	(406) 756-4182
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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.

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.

Art Transfer

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 [1,2]
- ☐ 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 [1,2]
- ☐ ARTJ 211F - Jewelry and Metalsmithing II Credit(s): 3 * [1,2]
- ☐ ARTZ 108F - Visual Language-3-D Foundations Credit(s): 3 *
- ☐ ARTZ 210 - Professional Practices Credit(s): 3 [2]
- ☐ ARTZ 211 - Drawing I Credit(s): 3 * [1,2]
- ☐ ARTZ 221F - Painting I Credit(s): 3 [1,2]
- ☐ 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

1 Students who wish to pursue the Photography option should take the following course instead: PHOT 255 Credit(s): 3 *

2 Graphic Design students only need one of the 200-level studio arts classes and can take other electives. However, ARTJ 210 and ARTJ 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 116 - 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 210 - Professional Practices 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 *
- ☐ 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.

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Amber Paulson	David Regan, M.F.A.
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(406) 756-3882	(406) 756-3993
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Biology Transfer

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 * [1] **and**
- ☐ CHMY 143NL - College Chemistry II Credit(s): 5 * [1]
- ☐ M 162M - Applied Calculus Credit(s): 5 *

OR

- ☐ M 171M - Calculus I Credit(s): 5 * [2]
- ☐ 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

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 * [4]
- ☐ Elective Credit(s): 3-5 [5,6]

OR

- ☐ M 172M - Calculus II Credit(s): 5 * [2]
- ☐ PHSX 205NL - College Physics I Credit(s): 5 * [3] **and**
- ☐ PHSX 207NL - College Physics II Credit(s): 5 * [3]

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 **

[1] 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 141* and CHMY 143*.

[2] If pursuing the Cell Biology and Neuroscience option, students should take M 171* and M 172*.

[3] 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 205* and PHSX 207*.

[4] For the Biomedical Sciences option take WRIT 121*.

[5] 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 *

[6] 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.

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 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Humanities (H) Requirement Credit(s): 3

First Year Total: 29

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: 61 **

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

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Ruth Wrightsman, Ph.D.
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(406) 756-3885	(406) 756-3878
rlamson@fvcc.edu	rwightsman@fvcc.edu

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 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.

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 * [1] **and**
- ☐ CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 * [1]

OR

- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 * [2] **and**
- ☐ CHMY 143NL - College Chemistry II Credit(s): 5 * [2]
- ☐ GEO 101NL - Introduction to Physical Geology Credit(s): 4 [3]
- ☐ M 162M - Applied Calculus Credit(s): 5 * [3]
- ☐ PSYX 100A - Introduction to Psychology Credit(s): 4 [4]

OR

- ☐ Social Sciences (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 [1]
- ☐ PHSX 205NL - College Physics I Credit(s): 5 * [3]
- ☐ PHSX 207NL - College Physics II Credit(s): 5 * [5]
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 * [6]
- ☐ 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**

1 If pursuing the Natural History option only.
2 If pursuing the Microbiology, Human Biological Sciences, Field Ecology or the Ecology and Organismal Biology option students should take either CHMY 121 and CHMY 123 or CHMY 141 and CHMY 143, CHMY 221 and CHMY 223. If pursing the Cellular or Molecular Biology or Microbiology option, take CHMY 141 and CHMY 143, or CHMY 221 and CHMY 223.
3 If pursuing the Natural History option, student should take M 152* instead of M 162* and take GEO 101 instead of Physics.
4 Required for Human Biological Sciences option as the SSA requirement.
5 If doing the Physics sequence rather than the GEO 101 course choice.
6 STAT 216* is not required for the Cellular and Molecular or Natural History options.

** 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 *

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

Biotechnology Transfer

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Ruth Wrightsman, Ph.D.
LRC 129	RH 132
(406) 756-3885	(406) 756-3878
rlamson@fvcc.edu	rwightsman@fvcc.edu

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 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.

Brewing Science and Brewery Operations, AAS

The Brewing Science and Brewery Operations program prepares individuals for careers in the craft brewing industry. Students will have exclusive use of the on-campus brewery, featuring a custom 3.5 barrel brewhouse, along with cellaring equipment, a dedicated laboratory, and a 5-10 gallon pilot brewing system. They will complete coursework in brewing science and technology, microbiology, chemistry, facilities and operations, and business applications. Upon completion of this program, students will be able to:

- Discuss the production, selection, and analysis of raw brewing materials;
- Describe the fundamental techniques of the brewing process;
- Apply Clean-in-Place (CIP) technologies to brewery sanitation;
- Identify, select, and safely utilize equipment and technologies in brewery operations;
- Evaluate beer quality and implement QA/QC measures into beer production, packaging, and handling;
- Explain the microbiology and biochemistry concepts related to wort production and beer fermentation;
- Identify beer styles and characteristics, as well as the causes of defects in beer;
- Apply business principles related to brewing, including compliance, licensing, and sustainability;
- Design beer recipes and implement process controls to consistently brew acceptable beer for packaging, distribution, and consumption.

Required Courses

First Year - Fall Semester

☐ BIOM 108 - Introduction to Food and Beverage Fermentation Credit(s): 3
☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
OR
☐ WRIT 101W - College Writing I Credit(s): 3 *
☐ BREW 101 - Brewing Methods I Credit(s): 5 *
☐ CAPP 116 - Short Courses: MS Excel Credit(s): 1
☐ CHMY 121NL - Introduction to General Chemistry Credit(s): 4 *

First Semester Total: 16

Spring Semester

☐ BIOM 208 - Applied Brewing Microbiology Credit(s): 3 *
☐ BREW 102 - Brewing Methods II Credit(s): 4 *
☐ BREW 150 - Brewhouse Processes Credit(s): 4 *
☐ BREW 298 - Internship: Professional Brewing Credit(s): 1-2 * [1]
☐ CHMY 123NL - Introduction to Organic Biochemistry Credit(s): 4 *

Second Semester Total: 16-17

Second Year - Fall Semester

☐ BREW 131 - Beer Styles and Sensory Evaluation I Credit(s): 1 *
☐ BREW 151 - Cellar Processes Credit(s): 4 *
☐ BREW 199 - Capstone I: Brewing Methods III Credit(s): 5 *
☐ BREW 298 - Internship: Professional Brewing Credit(s): 1-2 * [1]
☐ CHMY 170 - Applied Brewing Chemistry Credit(s): 3 *

First Semester Total: 14-15

Spring Semester

☐ BREW 132 - Beer Styles and Sensory Evaluation II Credit(s): 1 *
☐ BREW 141 - The Business of Brewing Credit(s): 2 *
☐ BREW 152 - Beer Packaging Credit(s): 2 *
☐ BREW 222 - Environmental Sustainability in Brewing Credit(s): 2 *
☐ BREW 299 - Capstone II: Brewing Methods IV Credit(s): 5 *
☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
OR
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3

Second Semester Total: 15

Total Credits: 61-63

1 Students must complete a minimum of two internship credits during the program by taking BREW 298. Students may begin earning internship credits during their second semester in the program.

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

Program Information

- An internship is required for this program. Students must complete a minimum of two internship credits during the program by taking BREW 298, and can repeat (once) for a maximum of four credits. Students may begin internships during their second semester in the program.
- All courses in this program must be passed with a grade of "C" or better. Failure to do so will result in academic probation and/or dismissal from the program.

Admission Guidelines

- Due to limited classroom and lab availability, this program requires an admissions process: **Application deadline is August 1.**
- Students must be 21 years of age to start the program.

Additional Costs

There are lab fees associated with several of the classes in this program. Total additional program costs are estimated at $1,800. Scholarships are available.

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor
Russ Lamson
LRC 129
(406) 756-3885
rlamson@fvcc.edu

Program Advisor
Joe Byers
RH 118
(406) 756-4359
jbyers@fvcc.edu

Business Administration Transfer

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,** 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

- ☐ 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
- ☐ 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 *
- ☐ Elective Credit(s): 5
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 4

First Year Total: 30-32

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 *
- ☐ 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
  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: 60-62

*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 *
- ☐ Global Issues Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Natural Science (NL) Non-physics Requirement Credit(s): 3
- ☐ Social Sciences (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 * [1]
- ☐ 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): 2
- ☐ 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

1 Not needed for the finance option.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Connie Hitchcock, M.B.A.
LRC 129	BSS 107
(406) 756-3905	(406) 756-4329
jbullemer@fvcc.edu	chitchcock@fvcc.edu

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 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.

Associate of Arts/Associate of Science Degree

Suggested of study for a transfer to Montana State University - Northern:

Transfer Articulation Agreement

The following program of study has been officially established to prepare students for transfer to Montana State University - Northern (MSU-N) with junior standing. Students who complete the Associate of Science degree at FVCC with grades of C- or higher in every course in this program of study, and are accepted into MSU-N, will be granted up to 67 semester credits toward a Bachelor of Science degree in Business Administration at MSU-N. See your advisor for more detailed information about this transfer articulation agreement.

First Year

- ☐ BGEN 110 - Applied Business Leadership Credit(s): 3
- ☐ 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
- ☐ 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 *
- ☐ Approved Electives Credit(s): 4[2]
- ☐ 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 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 *
- ☐ Approved Electives Credit(s): 2 [1,2]
- ☐ Global Issues 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

Second Year Total: 30

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 * [1]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 3

First Year Total: 29

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 *
- ☐ 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
  OR
- ☐ Natural Science (NL or N) Requirement Credit(s): 3
- ☐ Natural Science (NL or N) Requirement Credit(s): 3
- ☐ Non-Business Elective Credit(s): 11
- ☐ Social Sciences (A) Requirement Credit(s): 3

Second Year Total: 31

Total Credits: 60

1 UM prefers that any business electives in ACTG, BGEN, BFIN, BMGT or BMIS be taken as upper division, after transfer.

2 Approved electives include ACTG 205, BFIN 260, BGEN 204, BMGT 205, BMGT 235, BMIS 211, BMIS 270 and BMKT 225.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Connie Hitchcock, M.B.A.
LRC 129	BSS 107
(406) 756-3905	(406) 756-4329
jbullemer@fvcc.edu	chitchcock@fvcc.edu

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 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, AAS

(This program is also offered at the Lincoln County Campus.)

The Business Administration program provides students with a solid foundation in current business practices as preparation for work in a wide variety of industries. Students gain an overall understanding of the areas of business inclusive of management, marketing, human resource management, accounting and finance. There is strong emphasis on professional and interpersonal communications as a means to successful business relationships. Upon completion of this program, students will:

- Communicate in a professional manner with colleagues and customers;
- Analyze and use business data to make decisions;
- Demonstrate leadership and teamwork in a business setting;
- Apply ethical decision making guidelines;
- Understand how to manage business functional areas such as marketing, human resources, and accounting in achieving organizational goals;
- Apply basic accounting and finance to make business decisions;
- Use technology and specific software as related to business applications;
- Apply marketing concepts as related to the overall management and success of a business enterprise;
- Apply basic business law applications to daily business operations and personnel;
- Apply the basic principles of human resource management and employment law to the overall management of an organization.

Required Courses

First Year - Fall Semester

☐ ACTG 201 - Principles of Financial Accounting Credit(s): 4
☐ BGEN 204 - Business Fundamentals Credit(s): 3
☐ BMIS 211 - Introduction to Business Decision Support Credit(s): 4
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
☐ ECNS 201B - Principles of Microeconomics Credit(s): 3

First Semester Total: 17

Spring Semester

☐ ACTG 202 - Principles of Managerial Accounting Credit(s): 4 *
☐ BGEN 110 - Applied Business Leadership Credit(s): 3
☐ BMGT 235 - Management Credit(s): 3
☐ CAPP 156 - MS Excel Credit(s): 3
☐ ECNS 202GB - Principles of Macroeconomics Credit(s): 3

Second Semester Total: 16

Second Year - Fall Semester

☐ BFIN 205 - Personal Finance 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 *
☐ BMGT 215 - Human Resource Management Credit(s): 3
☐ BMKT 225 - Marketing Credit(s): 3

First Semester Total: 15-16

Spring Semester

☐ BFIN 260 - Principles of Finance Credit(s): 4 *
☐ BGEN 235 - Business Law Credit(s): 4
☐ BGEN 298 - Internship Credit(s): 3 *
☐ BGEN 299 - Capstone Credit(s): 3 *
☐ BMKT 131 - Introduction to Social Media Marketing Credit(s): 3 *

Second Semester Total: 17

Total Credits: 65-66

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

Program Information

- An internship is required for this program. Students must apply for internship placements the prior semester. See Internships for more information and application deadlines.
- 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 and professional positions with both small and large businesses in retail, wholesale trade, manufacturing, banking, and service industries along with local and state governments.
- Graduates may work as employment specialists, administrative assistants, team leaders, project managers, assistant managers, management trainees, or other service professionals.
- Growth opportunities vary with industry.

Advising Information:

For more information about the program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Connie Hitchcock, M.B.A.
LRC 129	BSS 107
(406) 756-3905	(406) 756-4329
jbullemer@fvcc.edu	chitchcock@fvcc.edu

Business: Entrepreneurship, CAS

This program offers a basic foundation in starting and/or managing a small business. All courses within this certificate can be applied to the AAS in Small Business Management. Upon completion of this program, students will be able to:

- Apply a broad overview of small business management and entrepreneurial approaches;
- Identify the various services provided by the S.B.A;
- Prepare a business plan;
- Identify the pros and cons of various forms of business ownership; and
- Discuss the startup 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 204 - Business Fundamentals Credit(s): 3
☐ BMIS 211 - Introduction to Business Decision Support Credit(s): 4
☐ BMKT 225 - Marketing Credit(s): 3

First Semester Total: 14

Spring Semester

☐ BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 *
☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
☐ BMGT 210 - Small Business Entrepreneurship Credit(s): 3
☐ BMGT 215 - Human Resource Management Credit(s): 3
☐ BMKT 131 - Introduction to Social Media Marketing Credit(s): 3 *

Second Semester Total: 16

Total Credits: 30

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

Program Information

- Contact your advisor for program information.
- Some courses require satisfactory scores on placement exams before being admitted. See the course descriptions for details.

Opportunities After Graduation

- This certificate enhances the managerial skills of those already operating or planning to open a small business. Students are also prepared for entry-level positions in small business as an employee or management trainee.

Advising Information:

For more information about the program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Jori Bullemer	Connie Hitchcock, M.B.A.
LRC 129	BSS 107
(406) 756-3905	(406) 756-4329
jbullemer@fvcc.edu	chitchcock@fvcc.edu

Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Business: Small Business Management, AAS

This program is designed to develop a high level of proficiency as a small business manager or entrepreneur. Upon completion of this program, students will be able to:

- Use basic accounting and financial principles to make management and marketing decisions;
- Apply technology and specific software as related to business applications;
- 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;
- Apply the basic principles of human resource management and employment law to the overall management of an organization;
- Understand the benefits of various agencies available to assist the small business owner; 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 204 - Business Fundamentals Credit(s): 3
☐ BMIS 211 - Introduction to Business Decision Support Credit(s): 4
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
☐ ECNS 201B - Principles of Microeconomics Credit(s): 3

First Semester Total: 17

Spring Semester

☐ ACTG 202 - Principles of Managerial Accounting Credit(s): 4 *
☐ BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 *
☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
☐ BMGT 235 - Management Credit(s): 3
☐ BMKT 225 - Marketing Credit(s): 3

Second Semester Total: 17

Second Year - Fall Semester

☐ ACTG 150 - Accounting on Microcomputers Credit(s): 3 *
☐ BFIN 205 - Personal Finance Credit(s): 3
☐ BGEN 235 - Business Law Credit(s): 4
☐ BMGT 210 - Small Business Entrepreneurship Credit(s): 3
☐ BMGT 215 - Human Resource Management Credit(s): 3

First Semester Total: 16

Spring Semester

☐ ACTG 180 - Payroll Accounting Credit(s): 2 *
☐ BFIN 222 - Small Business Budgeting Credit(s): 1 *
☐ BGEN 299 - Capstone Credit(s): 3 *
☐ 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 *

Second Semester Total: 15

Total Credits: 65

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

Program Information

- An internship is an option for this program. Students must apply for placements the prior semester. See internships for more information and application deadlines.
- 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

- Graduates may start their own business, manage a small business for someone else, or work in a small business in a professional role.
- Small businesses account for 97% of Montana businesses and employ 67% of Montana employeees.

Advising Information:

For more information about the program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Connie Hitchcock, M.B.A.
LRC 129	BSS 107
(406) 756-3905	(406) 756-4329
jbullemer@fvcc.edu	chitchcock@fvcc.edu

Certified Nurse Aide (C.N.A.) Course

FVCC offers a Nurse's Aide Training course that enables students to obtain a Certified Nurse Aide (C.N.A.) Certificate in 105 hours: NRSG 106 Nursing Assistant Course.

Through hands-on clinical training, the intensive course teaches students the skills and applications required to address the needs of chronically-ill patients in long-term care facilities. Students also gain understanding of basic medical terminology, basic human anatomy and physiology, and the aging process.

At the end of the course, students are given the C.N.A. test approved by the state of Montana. Students who pass the test will obtain their C.N.A. certificate and become eligible to work in long-term care facilities and other health care environments.

Before enrolling in this course, students must get a background check and several immunizations. See www.fvcc.edu/nursing for details.

C.N.A. Course Information:

☐ NRSG 106 - Nursing Assistant Course Credit(s): 5 *

For more information:

Contact Pam Klein, C.N.A. Coordinator
pklein@fvcc.edu
(406) 756-3625

Chemistry Transfer

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

- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ M 171M - Calculus I Credit(s): 5 *
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 18

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

Second Semester Total: 18

Second Year - Fall Semester

- ☐ CHMY 221NL - Organic Chemistry I Credit(s): 5 *
- ☐ M 273M - Multivariable Calculus 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

- ☐ BIOB 160NL - Principles of Living Systems Credit(s): 4
- ☐ CHMY 223NL - Organic Chemistry II Credit(s): 5 *
- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3
  OR
- ☐ Fine Arts (F) Requirement Credit(s): 3

Second Semester Total: 20

Total Credits: 75

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	David Long, Ph.D.
LRC 129	RH 109
(406) 756-3885	(406) 756-3895
rlamson@fvcc.edu	dlong@fvcc.edu

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 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.

Associate of Science Degree

Suggested course of study for a transfer in Biochemistry 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 *
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3

Second Semester Total: 20

Second Year - Fall Semester

- ☐ CHMY 221NL - Organic Chemistry I Credit(s): 5 *
- ☐ PHSX 205NL - College Physics I Credit(s): 5
- ☐ Global Issues 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: 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 *
- ☐ Social Sciences (A) Requirement Credit(s): 3

Second Semester Total: 18

Total Credits: 74

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

Associate of Science Degree

Suggested course of study for a transfer in 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 Sciences (B) Requirement Credit(s): 3

Second Semester Total: 17-18

Total Credits: 73-74 **

In addition, BIOH 201 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.

Associate of Science Degree

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

First Year - Fall Semester

- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ CHMY 290 - Undergraduate Research Credit(s): 1 *
- ☐ M 171M - Calculus I Credit(s): 5 *
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 *[1]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 19

Spring Semester

- ☐ CHMY 143NL - College Chemistry II Credit(s): 5 *
- ☐ CHMY 290 - Undergraduate Research Credit(s): 1 *
- ☐ M 172M - Calculus II Credit(s): 5 *
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 *[1]
- ☐ Social Sciences (A) Requirement Credit(s): 3

Second Semester Total: 19

Second Year - Fall Semester

- ☐ CHMY 221NL - Organic Chemistry I Credit(s): 5 *
- ☐ M 273M - Multivariable Calculus Credit(s): 5 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Social Science (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 *
- ☐ 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: 73

1 Physics option: A student can take the alternate College Physics option. A student who does not place into M 171 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	David Long, Ph.D.
LRC 129	RH 109
(406) 756-3885	(406) 756-3895
rlamson@fvcc.edu	dlong@fvcc.edu

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 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.

Commercial Driver's License (C.D.L.) Training Courses

There is a vital need for truck drivers in the United States, as 78 percent of all products are transported via truck. In addition, a 2015 study by the American Trucking Association predicts the trucking industry will need 890,000 new drivers in the next decade.

Most truckers, during their first year on the road, earn an average of $35,000 a year. After a few years of experience, they can earn average annual salaries between $45,000 and $50,000. Veteran drivers who own their own trucks earn average salaries of $100,000 and beyond.

Commercial bus drivers also benefit from abundant job opportunities as the convenience and affordability of public transportation continue to gain popularity. Locally, Glacier National Park's Going-to-the-Sun Road shuttle system is a good example as it provides an ideal opportunity for area teachers and school bus drivers who do not work during the summer months to earn extra income while enjoying the wonders of one of our earth's most enchanting parks.

FVCC offers five courses in commercial driver's license training.

In order to enroll in any of these courses, students must be at least 18 years of age and hold a current Montana Driver's License.

CDL Training Courses

- ☐ HEO 101 - Commercial Driver's License (Bus) Credit(s): 3 *
- ☐ HEO 102 - Commercial Truck Driver B to A Transition Credit(s): 2 *
- ☐ HEO 103 - Professional Truck Driver Credit(s): 4 *
- ☐ HEO 181 - Commercial Truck Driver A to Bus Transition Credit(s): 1 *

Additional Knowledge

Students in all courses will gain knowledge of federal and state regulations, safety procedures, hazardous materials, bill of lading, trip report procedures, loading and securing and air brake systems.

Advising Information:

For more information about this program, contact the FVCC Student Support Center.

Student Support Center Advisor
Will Richards
OT 204
(406) 756-4862
wrichards@fvcc.edu

Communication Studies Transfer

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): 6
- ☐ Fine Arts (F) Requirement Credit(s): 3
- ☐ LIT 110H - Introduction to Literature Credit(s): 3 3
  OR
- ☐ Humanities (H) Requirement Credit(s): 3 [1,2]
- ☐ Natural Science (NL or N) Requirement Credit(s): 3
- ☐ PSYX 100A - Introduction to Psychology Credit(s): 4 [2]
  OR
- ☐ SOCI 101A - Introduction to Sociology Credit(s): 3 [1]
  OR
- ☐ Social Sciences (A) Requirement Credit(s): 3 [3]

First Year Total: 30-31

Second Year

- ☐ COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *
- ☐ ANTY 220 - Culture and Society Credit(s): 3 [1]
  OR
- ☐ SOCI 220GA - Race, Gender and Class Credit(s): 3 [2,3]
- ☐ HSTA 102B - American History II Credit(s): 4 3
  OR
- ☐ Social Sciences (B) Requirement Credit(s): 3-4 [1,2]
- ☐ PSCI 250B - Introduction to Political Theory Credit(s): 3 [3]
  OR
- ☐ Humanities (H) Requirement Credit(s): 3 [1,2]
  OR
- ☐ Fine Arts (F) Requirement Credit(s): 3 [1,2]
- ☐ PSYX 230A - Developmental Psychology Credit(s): 3 * [2]
  OR
- ☐ Electives Credit(s): 3 [1,3]
- ☐ PSYX 233 - Fundamentals of Psychology of Aging Credit(s): 3 [2]
  OR
- ☐ Electives Credit(s): 3 [1,3]
- ☐ Electives Credit(s): 6
- ☐ Natural Science (NL or N) Requirement Credit(s): 3

Second Year Total: 31-32

Total Credits: 61-63

1 If pursuing the Organizational Communication option.
2 If pursuing the Communication and Human Relationships option.
3 If pursuing the Rhetoric and Public Discourse option.

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Amber Paulson	Joe Legate, M.F.A.
LRC 129	AT 255
(406) 756-3882	(406) 756-3906
apaulson@fvcc.edu	jlegate@fvcc.edu

Computer Science Transfer

Computer Science is the theoretical investigations and practical applications of 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 a four-year institution. Students should check with their advisor for a specific plan for transfer to **Montana State University-Bozeman, Montana Tech of The University of Montana, The University of Montana-Missoula** or another institution.

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 transfer to most Computer Science programs in Montana:

First Year - Fall Semester

- ☐ CSCI 111 - Programming with Java I Credit(s): 4
- ☐ M 171M - Calculus I Credit(s): 5 * [1]
- ☐ 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
- ☐ CSCI 121 - Programming with Java II Credit(s): 4 *
- ☐ M 172M - Calculus II Credit(s): 5 *
- ☐ WRIT 201W - College Writing II 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: 21

Second Year - Fall Semester

- ☐ CSCI 232 - Datastructures and Algorithms Credit(s): 3 *
- ☐ M 225M - Introduction to Discrete Mathematics Credit(s): 4 *
- ☐ NASX 105G - Introduction to Native American Studies Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 5

First Semester Total: 15

Spring Semester

- ☐ M 221M - Introduction to Linear Algebra Credit(s): 4 *
- ☐ Natural Science (NL or N) Requirement Credit(s): 5[2]

  OR
- ☐ Appropriate Electives Credit(s): 5 [2]
- ☐ Social Sciences (A) Requirement Credit(s): 3
- ☐ CSCI 113 - Programming with C++ I Credit(s): 4 *

Second Semester Total: 16

Total Credits: 67

1 Students should check with their advisor for the specific math requirements which may include Calculus I, Calculus II, Linear Math and Discrete Math.

2 Students should check with their advisor for specific science requirements which may include Physics I and Physics II.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Jim Goudy, M.S.
LRC 129	BSS 129
(406) 756-3885	(406) 756-3617
rlamson@fvcc.edu	jgoudy@fvcc.edu

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 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.

Criminal Justice Transfer

The Criminal Justice program at the **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.

Associate of Arts Degree

Suggested course of study for a transfer to Montana State University - Northern (on-line)

Transfer Articulation Agreement

The following program of study has been officially established to prepare students for transfer to Montana State University - Northern (MSU-N) with junior standing. Students who complete either an Associate of Science or Associate of Arts degree at FVCC with grades of C- or higher in every course in this program of study, and are accepted into MSU-N, will be granted between 60-90 semester credits toward a Bachelor of Science degree in Criminal Justice at MSU-N. See your advisor for more detailed information about this transfer articulation agreement.

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
- ☐ M 105M - Contemporary 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
- ☐ 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

First Year Total: 31

Second Year

- ☐ CHMY 280NL - Forensic Science I Credit(s): 4 * [1]
- ☐ CHMY 282NL - Forensic Science II Credit(s): 4 * [1]
- ☐ CJUS 200 - Principles of Criminal Law Credit(s): 3
- ☐ CJUS 230 - Police Organization Credit(s): 3
- ☐ CJUS 298 - Internship Credit(s): 3 * [2]

  OR
- ☐ Electives Credit(s): 3

  OR
- ☐ Minor Course Credit(s): 3 [3]
- ☐ 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 **

1 The CHMY courses would be advised although any approved NL and N or NL will work.
2 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.
3 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Student Support Center Advisor

Jori Bullemer
LRC 129
(406) 756-3905
jbullemer@fvcc.edu

Faculty Advisor

Mike Skinner, M.S.
BSS 128
(406) 756-3870
mskinner@fvcc.edu

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 [1]
- ☐ Electives Credit(s): 3 [1]
- ☐ Humanities (H) Requirement Credit(s): 3

First Year Total: 30

Second Year

- ☐ CHMY 280NL - Forensic Science I Credit(s): 4 *
- ☐ CJUS 171 - Introduction to Judicial Function Credit(s): 1 *
- ☐ CJUS 231 - Criminal Evidence and Procedure Credit(s): 2 *
- ☐ SOCI 220GA - Race, Gender and Class Credit(s): 3
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *
- ☐ Electives Credit(s): 3 [1]
- ☐ 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 [3]

  OR
- ☐ Mathematics (M) Requirement Credit(s): 3-4

  OR
- ☐ Natural Science (NL or N) Requirement Credit(s): 3-4 [4]
- ☐ Natural Science (NL or N) Requirement Credit(s): 3-4 [2]

Second Year Total: 30-32

Total Credits: 60-62

1 Suggested electives include PSYX 100, PSYX 150, PSYX 240 or SOCI 260.
2 Although only CHMY 280 will directly work as a transfer course, CHMY 282 would also prepare the student for a 400-level course at The University of Montana.
3 For an AA degree.
4 For a BS degree.

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Mike Skinner, M.S.
LRC 129	BSS 128
(406) 756-3905	(406) 756-3870
jbullemer@fvcc.edu	mskinner@fvcc.edu

Criminal Justice, AAS

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

☐ AMGT 110 - Keyboarding Credit(s): 1 +
☐ and
☐ AMGT 111 - Keyboard Formatting Credit(s): 1 + *
☐ and
☐ AMGT 112 - Keyboard Skillbuilding Credit(s): 1 + *
☐ BMIS 211 - Introduction to Business Decision Support Credit(s): 4
☐ CJUS 230 - Police Organization Credit(s): 3
☐ M 094~ - Quantitative Reasoning Credit(s): 4 *
☐ SOCI 101A - Introduction to Sociology Credit(s): 3

Second Semester Total: 17

Second Year - Fall Semester

☐ CHMY 280NL - Forensic Science I Credit(s): 4 *
☐ CJUS 171 - Introduction to Judicial Function Credit(s): 1 +*
☐ CJUS 231 - Criminal Evidence and Procedure Credit(s): 2 +*
☐ 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

☐ CHMY 282NL - Forensic Science II Credit(s): 4 *
☐ CJLE 109C - Police Report Writing Credit(s): 3
☐ CJUS 220 - Introduction to Corrections Credit(s): 3
OR
☐ CJUS 227 - Introduction to Policing Credit(s): 3
☐ SOCI 260 - Introduction to Juvenile Delinquency Credit(s): 3
☐ Electives Credit(s): 2

Second Semester Total: 15

Total Credits: 64

+ Indicates courses that must be taken concurrently.
* Indicates prerequisite and/or corequisite needed. Check course description.

Optional Course Offerings:

☐ ACT 285 - Handgun Marksmanship Credit(s): 1 *
☐ CJLE 210 - Comprehensive Investigative Interviewing Credit(s): 3 *
☐ CJUS 298 - Internship Credit(s): 3 *

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 Service Learning 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Jori Bullemer	Mike Skinner, M.S.
LRC 129	BSS 128
(406) 756-3905	(406) 756-3870
jbullemer@fvcc.edu	mskinner@fvcc.edu

Culinary Arts, AAS

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 *

First Semester Total: 15

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 *
- ☐ CULA 152 - Chef's Table Credit(s): 1 *
- ☐ CULA 220 - Purchasing and Cost Control Credit(s): 3 *1
- ☐ CULA 250 - Hospitality Supervision Credit(s): 3 *

Second Semester Total: 19

1M 065~ must be completed as a prerequisite before registering for CULA 220 if required placement test score was not met.

Summer Semester

- ☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
- ☐ 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: 15

Fall Semester

- ☐ BMGT 210 - Small Business Entrepreneurship Credit(s): 3
- ☐ CULA 299 - Capstone: Professional Chef IV Credit(s): 12 *

Fourth Semester Total: 15

Total Credits: 64

*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.
- **The priority application deadline is** July 15 **and the final deadline is** August 1**.**
- Admission to the program is based upon the following:
- Proof of a score of 17 or higher on FVCC Reading Placement OR an official copy of a transcript proving a "C-" or better in a 100-level or above college course requiring college-level reading.
- Proof of a score of 11 or higher on the FVCC Writing Placement OR an official copy of a transcript proving a "C-" or better in BMGT 205, WRIT 095~, WRIT 101, or equivalent.
- Proof of a score of 55 (Level 1) or higher in Intro/Beginning Algebra on the FVCC Math Placement OR an official copy of a transcript proving a "C-" or better in M 065~, its equivalent, or a higher math course.
- *Students will be able to access placement test registration through the Student Portal and Eagle Online, for Reading and Writing only. Students who cannot come to FVCC campus to take the Pearson MyMathTest math placement can either access this remotely, with a test proctor, or use high school math placement alternatives (contact Carlin Hale at 406-756-3880 for more information).*
- Educational Performance in lieu of placement scores (see previous bullets):
- 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 Advisor 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	**Program Advisor**
Carlin Hale	Manda Hudak
LRC 129	AT 158
(406) 756-3886	(406) 756-3932
chale@fvcc.edu	mhudak@fvcc.edu

Early Childhood Education, AAS

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 245 - Early Childhood Developmental Themes Credit(s): 3
☐ EDU 270 - Instructional Technology 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): 4
☐ 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: 18

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
☐ M 094~ - Quantitative Reasoning Credit(s): 4 *
☐ PSYX 230A - Developmental Psychology Credit(s): 3 *

First Semester Total: 16

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 *
☐ HSTA 102B - American History II Credit(s): 4
☐ Electives Credit(s): 1-3

Second Semester Total: 15-17

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 Service Learning 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Jori Bullemer	Eliza Thomas, M.A.
LRC 129	BSS 120
(406) 756-3905	(406) 756-
jbullemer@fvcc.edu	ethomas@fvcc.edu

Early Childhood Education: P3 Transfer

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. As preK-3 certification requirements change, the time is optimal to get a degree in PreK-3 or add on to an existing degree or certification. The national job outlook for teachers for the next five to ten years is quite favorable due to projected high levels of retirement in Montana and nationally.

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. 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.

If time permits, students may consider taking additional coursework to fulfill concentration or endorsement requirements at their transfer institutions. For example, ECP 100 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.

Associate of Science 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
- ☐ 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 (F) OR Communications (C) Requirement Credit(s): 3

First Semester Total: 14

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

Second Year - Fall Semester

- ☐ EDU 270 - Instructional Technology Credit(s): 3
- ☐ EDU 297 - Methods: K-8 Art Credit(s): 3
- ☐ GPHY 121GA - Human Geography Credit(s): 3
  OR
- ☐ GPHY 141GA - Geography of World Regions Credit(s): 3
- ☐ LIT 110H - Introduction to Literature Credit(s): 3
- ☐ Electives Credit(s): 1

First Semester Total: 13

Spring Semester

- ☐ EDU 231 - Literature and Literacy for Children Credit(s): 3
- ☐ ENSC 105NL - Environmental Science Credit(s): 4
- ☐ HEE 202 - Instructional Strategies in Elementary Physical Education Credit(s): 3
- ☐ SOCI 220GA - Race, Gender and Class Credit(s): 3
- ☐ THTR 239CF - Creative Drama and Dance for K-8 Credit(s): 3

Second Semester Total: 16

Total Credits: 60

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

NOTE:

- EDU 222 Educational Psychology and Child Development is a requirement at UM. If time allows, students can take it at FVCC.
- HEE 233 Health Issues of Children and Adolescents can be taken at FVCC, or students can wait and take HEE 330 Promoting Well-being in P-12 Classrooms at UM.
- EDU 201 Introduction to Education with Field Experience is not required for tranfer to UM; however, taking it at FVCC may help students determine their career path.

Advising Information:

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Eliza Thomas, M.A.
LRC 129	BSS 120
(406) 756-3905	(406) 756-
jbullemer@fvcc.edu	ethomas@fvcc.edu

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.

Earth Science Transfer

The Earth Science: GIS (Geographic Information Science)/Planning option is designed to offer students a mix of technical skills and academic training that prepares them for careers in local, state, and federal planning agencies as well as opportunities in private consulting firms that are involved in the planning process. This program recognizes the growing importance of Geographic Information Systems and Science in our society and the application of these tools in a wide variety of settings.

Associate of Science Degree

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

First Year - Fall Semester

- ☐ 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 *
  OR
- ☐ M 152M - Precalculus Algebra Credit(s): 3 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credits: 3

First Semester Total: 16

Spring Semester

- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
- ☐ ENSC 105NL - Environmental Science Credit(s): 4
- ☐ GPHY 121GA - Human Geography Credit(s): 3
- ☐ WRIT 201W - College Writing II Credit(s): 3 *
- ☐ Humanities (H) Requirement Credits: 3

Second Semester Total: 16

Second Year - Fall Semester

- ☐ CSCI 111 - Programming with Java I Credit(s): 4
- ☐ ECNS 101GB - Economic Way of Thinking Credit(s): 3
- ☐ GPHY 284 - Introduction to GIS Science and Cartography Credit(s): 4
- ☐ MART 231 - Interactive Web I Credit(s): 4
- ☐ PSCI 210B - Introduction to American Government Credit(s): 3

First Semester Total: 17

Spring Semester

- ☐ ENSC 245NL - Soils Credit(s): 4
- ☐ GPHY 286 - Advanced GIS Credit(s): 4 *
- ☐ SRVY 245 - GPS Mapping Credit(s): 2 *
- ☐ SRVY 275 - Analytic Photogrammetry and Remote Sensing Credit(s): 3 *
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *

Second Semester Total: 17

Total Credits: 66

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

Optional Courses:

To further broaden their educational experience, students may consider taking the following courses:

- ☐ DDSN 114 - Introduction to CAD Credit(s): 3
- ☐ GPHY 250 - Web GIS Credit(s): 2
- ☐ SRVY 248 - Unmanned Aerial Mapping Systems Credit(s): 2
- ☐ SRVY 290 - Undergraduate Research: Projects in GIS Credit(s): 2 *

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Tim Eichner, M.S.
LRC 129	RH 155
(406) 756-3885	(406) 756-3898
rlamson@fvcc.edu	teichner@fvcc.edu

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 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.

Economics Transfer

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 [1]
- ☐ 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 * [2]
- ☐ WRIT 201W - College Writing II Credit(s): 3 *
- ☐ Electives Credit(s): 3
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3

First Year Total: 31

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 * [3]
  OR
- ☐ M 171M - Calculus I Credit(s): 5 * [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: 30

Total Credits: 61

1 Students will still need to take ECNS 204 at Montana State University - Bozeman but this will prepare the student for that course.
2 Students who test out of WRIT 101 should take WRIT 121 instead.
3 Students planning to pursue higher mathematics should take M 171.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Gregg Davis, Ph.D.
LRC 129	BSS 125
(406) 756-3905	(406) 756-3867
jbullemer@fvcc.edu	gdavis@fvcc.edu

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 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.

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 *
- ☐ M 152M - Precalculus Algebra Credit(s): 3 * and
- ☐ M 162M - Applied Calculus Credit(s): 5 *

OR

- ☐ M 171M - Calculus I Credit(s): 5 * [1] and
- ☐ M 172M - Calculus II Credit(s): 5 * [1]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Electives Credit(s): 6
- ☐ Humanities (H) Requirement Credit(s): 3

First Year Total: 32-34

Second Year

- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *
- ☐ Electives Credit(s): 9
- ☐ 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) Requirment 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: 60-62

1 If student has intention of going to graduate school.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Gregg Davis, Ph.D.
LRC 129	BSS 125
(406) 756-3905	(406) 756-3867
jbullemer@fvcc.edu	gdavis@fvcc.edu

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 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.

Elementary Education Transfer

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 Science Degree

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

First Year

- ☐ BIOB 126NL - General Science: Earth and Life Science Credit(s): 5
- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
- ☐ EDU 222 - Educational Psychology and Child Development Credit(s): 3 [1]
- ☐ 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
- ☐ PHSX 126NL - General Science: Physical Science Credit(s): 5 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Humanities (H) Requirement Credit(s): 3

First Year Total: 31

Second Year

- ☐ ARTZ 105F - Visual Language-Drawing Credit(s): 3
  OR
- ☐ ARTZ 106F - Visual Language-2-D Foundations Credit(s): 3
  OR
- ☐ ARTZ 108F - Visual Language-3-D Foundations Credit(s): 3
  OR
- ☐ ARTZ 231F - Ceramics I Credit(s): 3
  OR
- ☐ THTR 101FH - Introduction to Theatre Credit(s): 3
- ☐ ASTR 110N - Introduction to Astronomy Credit(s): 3 [2]
- ☐ EDU 231 - Literature and Literacy for Children Credit(s): 3 [1]
- ☐ EDU 270 - Instructional Technology Credit(s): 3
- ☐ 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
  OR
- ☐ HSTR 101B - Western Civilization I Credit(s): 4
  OR
- ☐ HSTR 102B - Western Civilization II Credit(s): 4
- ☐ M 234 - Higher Mathematics for K-8 Teachers Credit(s): 3 *
- ☐ PSCI 210B - Introduction to American Government Credit(s): 3
- ☐ Electives Credit(s): 4

Second Year Total: 29

Total Credits: 60-62

1 EDU 222 and EDU 231 are offered in alternate years. Students should take them as available.
2 Students wanting to have math as their area of concentration should take M 152 instead.

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

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.

Associate of Science Degree

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

First Year

- ☐ ARTZ 105F - Visual Language-Drawing Credit(s): 3 [1]
- ☐ AND/OR
- ☐ ARTZ 106F - Visual Language-2-D Foundations Credit(s): 3 [1]
- ☐ AND/OR
- ☐ THTR 101FH - Introduction to Theatre Credit(s): 3 [1]
- ☐ BIOB 101NL - Discover Biology Credit(s): 4
  OR
- ☐ BIOB 126NL - General Science: Earth and Life Science Credit(s): 5
  OR
- ☐ BIOB 170N - Principles of Biological Diversity Credit(s): 3 and
- ☐ BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2
- ☐ EDU 201 - Introduction to Education with Field Experience Credit(s): 3
- ☐ EDU 222 - Educational Psychology and Child Development Credit(s): 3
- ☐ HEE 202 - Instructional Strategies in Elementary Physical Education 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
- ☐ Communications (C) Requirement Credit(s): 3

First Year Total: 31-32

Second Year

- ☐ ARTZ 105F - Visual Language-Drawing Credit(s): 3 [1]
- ☐ AND/OR
- ☐ ARTZ 106F - Visual Language-2-D Foundations Credit(s): 3 [1]
- ☐ AND/OR
- ☐ THTR 101FH - Introduction to Theatre Credit(s): 3 [1]
- ☐ 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 [2]
- ☐ 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 * [3]
- ☐ Global Issues (G) Requirement Credit(s): 3 [2]
  AND/OR
- ☐ Social Sciences (A) Requirement Credit(s): 3 [2]

Second Year Total: 30-31

Total Credits: 61-63**

1 In the first two years, students should take two of the following three courses: ARTZ 105, ARTZ 106, THTR 101.
2 Students may take PSCI 210 instead of GPHY 121, but will then need a G course.
3 Take only if mathematics is the desired area of concentration.

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

**As time allows, students may take EDU 231.
UM-Western students are required to demonstrate computer competency by exam, or take CAPP 131.

Associate of Arts Degree

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

First Year

- ☐ BIOB 126NL - General Science: Earth and Life Science Credit(s): 5
- ☐ 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
- ☐ HEE 233 - Health Issues of Children and Adolescents Credit(s): 3
- ☐ 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 *
- ☐ MUSI 101F - Enjoyment of Music Credit(s): 3
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
  OR
- ☐ WRIT 201W - College Writing II Credit(s): 3 *
- ☐ Humanities (H) or Fine Arts (F) Requirement Credit(s): 3

First Year Total: 35

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
- ☐ 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 *

Second Year Total: 28

Total Credits: 63

Notes:

Students transferring to MSU-B may choose to double major in Elementary Ed/Reading or Elementary Ed/Special Education as well. Refer to the MSU-B website for more information.

If time allows, students may take EDU 222 Educational Psychology and Child Development or EDU 297 Methods: K-8 Art and EDU 297 Methods: K-8 Music. Though not required, students who plan to teach grades 6-8 may also take M 234 Higher Mathematics for K-8 Teachers.

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

Associate of Arts Degree

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

First Year

- ☐ BIOB 126NL - General Science: Earth and Life Science Credit(s): 5 [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: 33

Second Year

- ☐ EDU 222 - Educational Psychology and Child Development Credit(s): 3
- ☐ HTH 110 - Personal Health and Wellness 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): 3 2
- ☐ Fine Arts (F) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3
  OR
- ☐ Fine Arts (F) Requirement Credit(s): 3

Second Year Total: 29

Total Credits: 62

1 Students may take other acceptable BIO or CHMY courses instead. See Montana State University - Northern website.
2 Electives should be in the desired area of concentration.

*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:

Transfer Articulation Agreement

The following program of study is officially established to prepare students for acceptance into the UM Elementary Education program with junior standing. Students who complete this program of study at FVCC will be prepared to apply for acceptance into the Teacher Education Program at UM. Students wishing to earn a bachelor's degree may transfer to the UM Missoula campus, or students can complete a Bachelor's degree through the UM Distance Learning Cohort based at FVCC. A new cohort of distance learning students begins each fall on the FVCC campus for students who have completed FVCC's program of study and applied to and are accepted into the University of Montana and the Teacher Education program. See your FVCC advisor or the UM School of Education for more information.

UM Admissions:
http://admissions.umt.edu/admissions/transfer/default.php

UM Distance Cohort Program:
http://coehs.umt.edu/departments/currinst/undergradprograms/elemed/Distance%20Cohort%20Programs.php

First Year - Fall Semester

- ☐ BIOB 126NL - General Science: Earth and Life Science Credit(s): 5
- ☐ M 132M - Number and Operations for K-8 Teachers Credit(s): 3 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Fine Arts (F) Requirement Credit(s): 3
  OR
- ☐ Humanities (H) 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 [1]
- ☐ 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

- ☐ EDU 231 - Literature and Literacy for Children Credit(s): 3
- ☐ EDU 270 - Instructional Technology 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

Second Semester Total: 16**

Second Year Total: 31

Total Credits: 68

1 Students who plan to transfer to UM-Missoula may alternatively take HEE 330 at UM for 1 credit. Students planning to enroll in the FVCC Distance Learning cohort should take HEE 233 at FVCC.

*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 sping semester.

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.

Note:

EDU 201 Introduction to Education with Field Experience is not required for transfer to UM-Missoula, though may help students determine their career path.

EDU 222 Educational Psychology and Child Development is required at UM-Missoula. Students may take it at FVCC as time allows.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**	**Faculty Advisor**
Jori Bullemer	Eliza Thomas, M.A.	Laura VanDeKop, M.S.
LRC 129	BSS 120	RH 144
(406) 756-3905	(406) 756-	(406) 756-3998
jbullemer@fvcc.edu	ethomas@fvcc.edu	lvandekop@fvcc.edu

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 Transfer

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

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. Teacher Education Program

Students will need five semesters at UM to complete the bachelor's program and must be admitted to the Teacher Education Program prior to taking EDU classes at UM. Students must apply to the Teacher Education Program at UM by September 15 of their second year - contact UM for details:
http://coehs.umt.edu/departments/currinst/default.php.

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 *
- ☐ 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 *
- ☐ 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 *
- ☐ NASX 105G - Introduction to Native American Studies Credit(s): 3
  OR
- ☐ NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 3
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Year Total: 27

Total Credits: 60 **

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

** If time allows, students could take ARTZ 211, ARTZ 271, EDU 270 and/or THTR 239.

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	David Regan, M.F.A.
LRC 129	AT 129
(406) 756-3905	(406) 756-3993
jbullemer@fvcc.edu	dregan@fvcc.edu

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
- ☐ 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: 30

Total Credits: 64 **

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

**If time allows, students could take EDU 270.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Jori Bullemer	Ruth Wrightsman, Ph.D.
LRC 129	RH 132
(406) 756-3905	(406) 756-3878
jbullemer@fvcc.edu	rwrightsman@fvcc.edu

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.

Secondary Education - English

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.

** If time allows, students are encouraged to take EDU 221 *.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Amber Paulson	Conrad Rauscher, M.A.
LRC 129	AT 228
(406) 756-3882	(406) 756-3633
apaulson@fvcc.edu	crauscher@fvcc.edu

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 - General Science Broadfield

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

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 [+]
  OR
- ☐ Social Sciences (A) Requirement Credit(s): 3-4
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

First Year Total: 30-31

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
- ☐ PHSX 207NL - College Physics II Credit(s): 5 *
- ☐ PSYX 230A - Developmental Psychology Credit(s): 3 * [1]
- ☐ 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 (B) Requirement Credit(s): 3-4

Second Year Total: 31-32

Total Credits: 61-63 **

1 Students could take both PSYX 100 and PSYX 230 here to satisfy the three-credit Life Span course at MSU or take any SS(A) here, not take PSYX 230 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 275, EDU 222, and EDU 270 to fulfill an additional MSU requirement.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Jori Bullemer	Ruth Wrightsman, Ph.D.
LRC 129	RH 132
(406) 756-3905	(406) 756-3878
jbullemer@fvcc.edu	rwrightsman@fvcc.edu

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.

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
- ☐ 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: 35

Total Credits: 79**

**If time allows, students should take EDU 270.

NOTE: 60 credits are required for the AS degree, though up to 22 additional credits for this degree may be taken at FVCC before transfer. See your advisor with questions.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Jori Bullemer	Ruth Wrightsman, Ph.D.
LRC 129	RH 132
(406) 756-3905	(406) 756-3878
jbullemer@fvcc.edu	rwrightsman@fvcc.edu

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 - Government/Political Science

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
- ☐ 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
- ☐ Elective Credit(s): 6
- ☐ Fine Arts (F) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3

First Year Total: 30

Second Year

- ☐ PSCI 230G - 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): 6
- ☐ 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
- ☐ Natural Science (NL) Requirement Credits: 3
- ☐ Social Sciences (A) Requirement Credit(s): 3

Second Year Total: 30

Total Credits: 60

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Rob Bauer, Ph.D.
LRC 129	BSS 124
(406)756-3905	(406) 756-3860
jbullemer@fvcc.edu	rbauer@fvcc.edu

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
- ☐ 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 *
- ☐ Elective 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
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Electives Credit(s): 6
- ☐ Fine Arts (F) Requirement Credit(s): 3 [1]
- ☐ 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

1 An art history course is preferred for one of these requirements.
*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Rob Bauer, Ph.D.
LRC 129	BSS 124
(406)756-3905	(406) 756-3860
jbullemer@fvcc.edu	rbauer@fvcc.edu

Secondary Education - Social Studies 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
- ☐ 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): 4

First Year Total: 30

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
- ☐ PSYX 100A - Introduction to Psychology Credit(s): 4
  OR
- ☐ SOCI 101A - Introduction to Sociology Credit(s): 3
- ☐ EDU 222 - Educational Psychology and Child Development 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
- ☐ PSCI 230G - Introduction to International Relations 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

Second Year Total: 32-33

Total Credits: 62-63**

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

** As time allows, students may take PSYX 230.

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 to all Montana Colleges and Universities

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
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 3-4
- ☐ Social Sciences (A) Requirement Credit(s): 3

First Year Total: 28-29

Second Year

- ☐ 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 230G - 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: 32

Total Credits: 60-61

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Rob Bauer, Ph.D.
LRC 129	BSS 124
(406)756-3905	(406) 756-3860
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Electrical Apprentice, CTS

Completion of this program satisfies the Montana Department of Labor and Industry requirement for the educational component of the electrical apprenticeship program, and it is intended to be only for currently registered electrical apprentices. Please note that this program is not eligible for Federal financial aid. The program is scheduled for a succession of eight semesters, fall and spring, followed by one summer semester. In conjunction with the required work experience, this program provides students the training necessary to work in the field of electrical wiring in residential, commercial, and industrial applications. Upon completion of this program, students will:

- Read simple wiring diagrams;
- Read, interpret, and produce solutions to application problems at the introductory technical mathematics level;
- Recognize and then act using the skills needed in a situation requiring first aid and/or CPR;
- Relate, in detail, the NEC to residential wiring methods;
- Effectively use ammeters, voltmeters, ohmmeters, and phase detectors in testing and troubleshooting DC and AC motors;
- Describe the construction of a single-phase transformer including parts and relationships;
- Describe safety practices that relate to all types of rigging;
- Prepare a cost estimate for a residential, commercial, or industrial application;
- Employ appropriate procedures to safely and correctly install various electrical circuits and raceways; and
- Determine the proper wire and cable installations required by the NEC for various residential, commercial, and industrial applications.

First Year - Fall Semester

☐ ELCT 100 - Introduction to Electricity Credit(s): 3

First Semester Total: 3

Spring Semester

☐ ECP 104 - Workplace Safety Credit(s): 1
☐ ELCT 116 - Math for Electricians Credit(s): 2

Second Semester Total: 3

Second Year - Fall Semester

☐ ELCT 133 - Basic Wiring Credit(s): 4 *

First Semester Total: 4

Spring Semester

☐ ELCT 139 - Electric Code Study - Residential Credit(s): 3 *

Second Semester Total: 3

Third Year

Fall Semester

☐ ELCT 130 - Electric Motors and Generators Credit(s): 3

First Semester Total: 3

Spring Semester

☐ CSTN 135 - Basic Rigging Credit(s): 1
☐ ELCT 225 - Transformers Credit(s): 2

Second Semester Total: 3

Fourth Year

Fall Semester

☐ ELCT 204 - Electrical Planning and Estimating Credit(s): 3 *

First Semester Total: 3

Spring Semester

☐ ELCT 233 - Commercial Wiring Lab Credit(s): 3 *
☐ ELCT 236 - Conduit, Raceways, and Code Calculations Lab Credit(s): 3 *

Second Semester Total: 6

Summer Semester

☐ ELCT 255 - Journeyman Electrician's Exam Preparation Credit(s): 1

Third Semester Total: 1

Total Credits: 29

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

Program Information

- Because the students in this program are working apprentices, normal course prerequisites are waived.
- This program is approved by the Montana Department of Labor and Industry.

Admission Guildelines

- This program differs from the Electrical Technology program in that only persons who are already working as electrical apprentices may register for the courses in this program. There is no other admission requirement.
- The courses in this program are open only to registered apprentices.

Additional Costs

- Most of the courses in this program have a lab fee. At present, those fees total approximately $445 for all courses. Check the FVCC course schedule for current course lab fees.
- Courses in this program are not elibible for federal financial aid.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	**Program Advisor**
Will Richards	Dick Frisk
OT 204	OT 116 B
(406) 756-4862	(406) 756-4383
wrichards@fvcc.edu	dfrisk@fvcc.edu

Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Electrical Technology, AAS

Both the AAS and CAS 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; and
- 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

☐ COMX 115C - Introduction to Interpersonal 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 251 - Introduction to Photovoltaic Systems Credit(s): 4 *

Second Semester Total: 18

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

CAS Total Credits: 35

Second Year - Fall Semester

☐ ELCT 103 - Electrical Code Study/Codeology Credit(s): 3 *
☐ ELCT 204 - Electrical Planning and Estimating Credit(s): 3 *
☐ ELCT 205 - Electrical Design and Lighting Credit(s): 3
☐ ELCT 210 - Advanced Current Theory Credit(s): 5 *
☐ ELCT 241 - Electric Motor Controls Credit(s): 3
☐ ID 115 - Workforce Preparation for Occupational Trades Credit(s): 1

First Semester Total: 18

Spring Semester

☐ BMGT 205C - Professional Business 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

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

Optional Course Offering:

☐ ELCT 252 - Fundamentals of Battery-Based Photovoltaic Systems Credit(s): 4 *

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 3,000 OJT training hours may be approved by the Registration Agency Program but provided the sponsor elects to grant the 3,000 OJT credit hours or a portion thereof to the apprentice based upon demonstration of skills. If the one-year CAS has been completed, the number of OJT credit hours is 1,500.
- Any work hours or related instruction credit granted, which may be as many as fifteen courses for the AAS and as many as five courses for the CAS, 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	**Program Advisor**
Will Richards	Dick Frisk
OT 204	OT 116 B
(406) 756-4862	(406) 756-4383
wrichards@fvcc.edu	dfrisk@fvcc.edu

Electrical Technology, CAS

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; and
- Demonstrate the assembly and installation of photovoltaic systems.

Required Courses

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

☐ COMX 115C - Introduction to Interpersonal 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 251 - Introduction to Photovoltaic Systems Credit(s): 4 *

Second Semester Total: 18

CAS Total Credits: 35

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

Program Information

- Students must achieve 85% or above in all classes to count toward their apprenticeship training.
- For apprenticeship information, contact the Montana Department of Labor Apprentice Training Board at (406) 444-3556.
- First Aid/CPR Certification.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	**Program Advisor**
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Gainful Employment

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Electronics Technician, CT, CAS, & AAS

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, CTS

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 *
  OR
- ☐ M 152M - Precalculus Algebra Credit(s): 3 *

First Semester Total: 17

Electronics Technician Tier II, CTS

Spring Semester

- ☐ BMGT 205C - Professional Business Communication Credit(s): 3 *[1]
  OR
- ☐ COMX 115C - Introduction to Interpersonal 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
- ☐ ETEC 130 - Panel Wiring and Soldering Credit(s): 2
- ☐ PHSX 110 - Applied Physics Credit(s): 4 *

Second Semester Total: 17

1 This course may be substituted with WRIT 122, Introduction to Business Writing, which is offered at other colleges in the Montana University System.

CAS Total Credits: 34

Upon completion of Tiers I and II, a student has met the requirements for a CAS, but may not receive both a Tier II CTS and a CAS.

Electronics Technician Tier III, CTS

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 *
- ☐ ID 115 - Workforce Preparation for Occupational Trades Credit(s): 1

First Semester Total: 18

Electronics Technician Tier IV, CTS

Spring Semester

- ☐ BMGT 205C - Professional Business Communication Credit(s): 3 * [1]
  OR
- ☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- ☐ ELCT 211 - AC Measurements Credit(s): 3 *
- ☐ ETEC 280 - Advanced Electronics Credit(s): 4 * [2]
- ☐ ETEC 285 - Advanced Programmable Controllers Credit(s): 4 * [2]
- ☐ ETEC 299 - Capstone: Electronics Credit(s): 3 *

Second Semester Total: 17

1This course may be substituted with WRIT 122, Introduction to Business Writing, which is offered at other colleges in the Montana University System.

2 The lecture portion of this course can be taken online. See the course description for details.

AAS Total Credits: 69

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 Battery-Based Photovoltaic Systems Credit(s): 4 *

Note

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

Admission Guidelines

- 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 an AAS degree in Electronics Technician upon completion of all four Tiers.
- If BMGT 205 is completed in Tier II, then COMX 115 must be completed in Tier IV. Students who wish to graduate with an AAS degree must complete both BMGT 205 and COMX 115.
- Good mathematical skills are imperative.
- 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	**Program Advisor**
Will Richards	Dan Leatzow, Ph.D.
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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Electronics Technician with Engineering Transfer

This program is designed to give students technical skills and hands-on experience with electronics, circuits, and programmable controllers. Further, it provides freshman and sophomore level classes to prepare students who wish to transfer to a program in electrical engineering. 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;
- Program and troubleshoot PLC systems for basic system control; and
- Describe how various industrial processes are coalesced using advanced PLC techniques.

Electrical Option I Transfer

Associate of Science Degree with Electronics Technician Tier III, CTS

Suggested course of study for a transferto Montana State University - Bozeman, and Montana Tech of Montana State University:

First Year - Fall Semester

- ☐ EELE 101 - Introduction to Electrical Fundamentals Credit(s): 3 *
- ☐ EGEN 105 - Introduction to General Engineering Credit(s): 1
- ☐ ELCT 100 - Introduction to Electricity Credit(s): 3
- ☐ ELCT 110 - Basic Electricity I Credit(s): 5 *
- ☐ M 152M - Precalculus Algebra Credit(s): 3 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 18

Spring Semester

- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
- ☐ ECP 104 - Workplace Safety Credit(s): 1
- ☐ M 153M - Precalculus Trigonometry Credit(s): 4 *
- ☐ Social Sciences (A) Requirement Credit(s): 3
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Semester Total: 19

Second Year - Fall Semester

- ☐ EGEN 105 - Introduction to General Engineering Credit(s): [1]
- ☐ ELCT 210 - Advanced Current Theory Credit(s): 5 * [1]
- ☐ ELCT 250 - Programmable Logic Controllers Credit(s): 4 [1]
- ☐ ETEC 245 - Digital Electronics Credit(s): 4 * [1]
  OR
- ☐ ETEC 250 - Solid State Electronics I Credit(s): 4 * [1]
- ☐ ID 115 - Workforce Preparation for Occupational Trades Credit(s): 1
- ☐ M 171M - Calculus I Credit(s): 5 *

First Semester Total: 19

Spring Semester

- ☐ CSCI 113 - Programming with C++ I Credit(s): 4 *
- ☐ ETEC 285 - Advanced Programmable Controllers Credit(s): 4 * [2]
- ☐ M 172M - Calculus II Credit(s): 5 *
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 *

Second Semester Total: 18

Third Year

Fall Semester

- ☐ M 273M - Multivariable Calculus Credit(s): 5 *
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 *
- ☐ Additional Engineering Requirement Credit(s): 6
- ☐ Humanities (H) Requirement Credit(s): 3

First Semester Total: 19

Spring Semester

- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 *
- ☐ Additional Engineering Requirement Credit(s): 8
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) or Fine Arts (F) Requirement Credit(s): 3

Second Semester Total: 19

Total Credits: 112

1 Students who complete these four courses are eligible to earn an Electronics Technician Tier III Certificate of Technical Studies (CTS).

2 ETEC 285 may substitute for either ETEC 245 or ETEC 250 in the Electronics Technician Tier III CTS.

*Indicates prerequisite or corequisite needed. Check course description.

Electrical Option II Transfer

Associate of Science Degree with Electronics Technician, CAS

Suggested course of studty for a transfer to Montana State University - Bozeman or Montana Tech of Montana State University:

First Year - Fall Semester

- ☐ EELE 101 - Introduction to Electrical Fundamentals Credit(s): 3
- ☐ ELCT 100 - Introduction to Electricity Credit(s): 3 [1]
- ☐ ELCT 110 - Basic Electricity I Credit(s): 5 * [1]
- ☐ M 152M - Precalculus Algebra Credit(s): 3 * [1]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 17

Spring Semester

- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3 [2]
- ☐ ECP 104 - Workplace Safety Credit(s): 1 [1]
- ☐ ELCT 111 - Electric Meters and Motors Credit(s): 3 [1]
- ☐ M 153M - Precalculus Trigonometry Credit(s): 4 *
- ☐ Social Sciences (A) Requirement Credit(s): 3

Second Semester Total: 19

Second Year - Fall Semester

- ☐ EGEN 105 - Introduction to General Engineering Credit(s): 1
- ☐ ELCT 133 - Basic Wiring Credit(s): 4 * [1]
- ☐ ELCT 137 - Electrical Drafting Credit(s): 2 [1]
- ☐ M 171M - Calculus I Credit(s): 5 *
- ☐ Social Sciences (B) Requirement Credit(s): 3

First Semester Total: 15

Spring Semester

- ☐ CSCI 113 - Programming with C++ I Credit(s): 4 *
- ☐ ETEC 130 - Panel Wiring and Soldering Credit(s): 2 [1]
- ☐ M 172M - Calculus II Credit(s): 5 *
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 *

Second Semester Total: 16

Third Year - Fall Semester

- ☐ M 273M - Multivariable Calculus Credit(s): 5 *
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 *
- ☐ Additional Engineering Requirement Credit(s): 6
- ☐ Humanities (H) Requirement Credit(s): 3

First Semester Total: 19

Spring Semester

- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 *
- ☐ Additional Engineering Requirements: 8
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3

Second Semester Total: 19

Total Credits: 105

1 Students who complete these courses are eligible to earn an Electronics Technician, CAS.

2 The following are acceptable substitutions in the Electronics Technician CAS:

COMX 111 for BMGT 205 or COMX 115

EELE 101 for ELCT 102

PHSX 220 for PHSX 110

*Indicates prerequisite or corequisite needed. Check course description.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Will Richards	Effat Rady, Ph.D.
OT 204	RH 110
(406) 756-4862	(406) 756-3375
wrichards@fvcc.edu	erady@fvcc.edu

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 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.

Emergency Medical Technician (E.M.T.) Course

E.M.T. is considered the desired level of medical training by many Emergency Medical Services transport agencies. E.M.T.s bring emergency medical care to victims of emergencies to stabilize their condition and safely transport them to an appropriate care facility.

With a combination of classroom work, skills lab, and practical experience, students prepare for the National Registry of Emergency Medical Technicians (NREMT) examinations.

Emergency Medical Technician Course

☐ ECP 130 - Emergency Medical Technician Credit(s): 6

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Karrie Bolivar	Ryan Pitts, B.S.N.
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Engineering Transfer

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.

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 * [1]
- ☐ EGEN 105 - Introduction to General Engineering Credit(s): 1
- ☐ M 171M - Calculus I Credit(s): 5 * [2]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Social Sciences (A) Requirement Credit(s): 3

First Semester Total: 17

Spring Semester

- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
- ☐ M 172M - Calculus II Credit(s): 5 * [2]
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 * [3]
- ☐ Additional Engineering Requirement Credit(s): 3 **

Second Semester Total: 16

Second Year - Fall Semester

- ☐ M 273M - Multivariable Calculus Credit(s): 5 * [2]
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 [3]
- ☐ Additional Engineering Requirement Credit(s): 3**
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Social Science (B) Requirement Credit(s): 3[4,5]

First Semester Total: 19

Spring Semester

- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 * [2]
- ☐ Additional Engineering Requirements Credit(s): 8 **
- ☐ 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

Total Credits: 71

1 Not required for Computer Engineering majors, while CHMY 121 is needed for Construction Engineering Majors.
2 Construction Engineering Technology students should take two semesters of calculus and STAT 216. Mechanical engineering technology majors need to have taken at least M 153.
3 Construction Engineering technology, and mechanical engineering technology majors could take PHSX 205 and PHSX 207 instead.
4 Construction Engineering Technology students should take ECNS 101 or ECNS 202 as their Social Science B requirement.
5 Civil Engineering students should take ECNS 101 or PSCI 210.

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

**See additional courses listed below.

****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 *
  (This course includes Excel, MathCAD and Matlab.)
- ☐ EMEC 250 - Mechanical Engineering Materials Credit(s): 3 *
  (This course is equivalent to EMAT 251 at MSU.)

****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 *
  (This course includes Excel, MathCAD and Matlab.)
- ☐ EMEC 250 - Mechanical Engineering Materials Credit(s): 3 *
  (This course is equivalent to EMAT 251 at MSU.)

****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 *
  (This course includes Excel, MathCAD and Matlab.)
- ☐ EGEN 111 - Engineering Communications Credit(s): 3
  (This course includes AutoCAD with Civil 3D.)
- ☐ EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 *
- ☐ EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 *
- ☐ EGEN 205 - Mechanics of Materials Credit(s): 4 *
- ☐ EMEC 250 - Mechanical Engineering Materials Credit(s): 3
  (This course is equivalent to EMAT 251 at MSU.)
- ☐ ENSC 245NL - Soils Credit(s): 4
  OR
- ☐ GEO 101NL - Introduction to Physical Geology Credit(s): 4

****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 201 - Circuits I for Engineering Credit(s): 4 *
- ☐ EELE 261 - Introduction to Logic Circuits Credit(s): 4 *

****Additional courses for Construction Engineering Technology (MSU):**

- ☐ ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ☐ EGEN 111 - Engineering Communications Credit(s): 3
- ☐ EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 *
- ☐ EGEN 205 - Mechanics of Materials Credit(s): 4 *
- ☐ EMEC 250 - Mechanical Engineering Materials Credit(s): 3 *
  (This course is equivalent to EMAT 251 at MSU.)
- ☐ 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 201 - Circuits I for Engineering Credit(s): 4 *
- ☐ EELE 261 - Introduction to Logic Circuits 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
- ☐ EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 *
- ☐ EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 *
- ☐ EGEN 205 - Mechanics of Materials Credit(s): 4 *
- ☐ EMEC 103 - CAE I - Engineering Graphics Communication Credit(s): 3
  (This course includes AutoCAD, Solidworks, and Hand Drafting.)
- ☐ EMEC 250 - Mechanical Engineering Materials Credit(s): 3 *
- ☐ ETME 215 - Manufacturing Processes Credit(s): 3 *
- ☐ 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 *
  (This course is equivalent to EMEC 203 at MSU. This course includes Excel, MathCAD, and Matlab.)
- ☐ EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 *
- ☐ EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 *
- ☐ EGEN 205 - Mechanics of Materials Credit(s): 4 *
- ☐ EMEC 103 - CAE I - Engineering Graphics Communication Credit(s): 3
  (This course includes Solidworks, AutoCAD, and Hand Drafting.)
- ☐ EMEC 250 - Mechanical Engineering Materials Credit(s): 3 *
- ☐ ETME 215 - Manufacturing Processes Credit(s): 3 *

****Additional courses for Mechanical Engineering Technology (MSU):**

- ☐ EGEN 102 - Introduction to Engineering Computer Applications Credit(s): 2 *
  (This course is equivalent to EMEC 203 at MSU. This course includes Excel, MathCAD, and Matlab.)
- ☐ EGEN 201 - Engineering Mechanics: Statics Credit(s): 4 *
- ☐ EGEN 205 - Mechanics of Materials Credit(s): 4 *
- ☐ EMEC 103 - CAE I - Engineering Graphics Communication Credit(s): 3
- ☐ EMEC 250 - Mechanical Engineering Materials Credit(s): 3 *
- ☐ ETME 215 - Manufacturing Processes Credit(s): 3 *

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 *
- ☐ WRIT 121C - Introduction to Technical Writing Credit(s): 3 *

First Semester Total: 19

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 Requirement Credit(s): 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 *
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3

First Semester Total: 17

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

Second Semester Total: 19

Total Credits: 83

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

** See additional courses listed below.

****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 *
- ☐ 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 *
- ☐ EMEC 250 - Mechanical Engineering Materials Credit(s): 3 *
- ☐ (This course is equivalent to EGEN 213 at MT Tech.)
- ☐ GEO 101NL - Introduction to Physical Geology Credit(s): 4
- ☐ M 221M - Introduction to Linear Algebra Credit(s): 4 * [1]

****Additional courses for Geophysical Engineering (MT Tech of The University of Montana):**

- ☐ EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 *
  OR
- ☐ EGEN 205 - Mechanics of Materials 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): 3 *
- ☐ EELE 261 - Introduction to Logic Circuits Credit(s): 4 *
- ☐ EGEN 202 - Engineering Mechanics: Dynamics Credit(s): 4 *
- ☐ M 221M - Introduction to Linear Algebra Credit(s): 4 *

Advising Information:

For more information about this program, contact the Faculty Advisor.

Faculty Advisor
Effat Rady, Ph.D.
RH 110
(406) 756-3375
erady@fvcc.edu

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 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.

English Transfer

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 1
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ English Electives Credit(s): 6 [2]
- ☐ 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 [1]

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

1 Two Shakespeare courses at FVCC equate to one 300-level Shakespeare course at UM.

2 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 285H - Mythologies Credit(s): 3
- ☐ THTR 235H - Dramatic Literature Credit(s): 3

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor

Amber Paulson

LRC 129

(406) 756-3882

apaulson@fvcc.edu

Faculty Advisor

Conrad Rauscher, M.A.

AT 228

(406) 756-3633

crauscher@fvcc.edu

Environmental Biology Transfer

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 283 - GIS for Survey Analysis 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Ruth Wrightsman, Ph.D.
LRC 129	RH 132
(406) 756-3885	(406) 756-3878
rlamson@fvcc.edu	rwightsman@fvcc.edu

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 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 Science Transfer

The Environmental Science - Geospatial Technology program at **Montana State University - Bozeman** prepares students to better understand and manage our natural world through the lens of technology. This program is designed to establish a strong foundation in the natural sciences and develop skills in modern land inventory and analysis technology, including geographic information systems (GIS), global positioning systems (GPS), and remote sensing. Knowledge of geospatial technology is an increasingly sought after skill in the field of environmental science.

Associate of Science Degree

Suggested course of study for a transfer 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 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 17

Spring Semester

- ☐ BIOB 170N - Principles of Biological Diversity Credit(s): 3 *
- ☐ CHMY 143NL - College Chemistry II Credit(s): 5 *
- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
- ☐ ENSC 105NL - Environmental Science Credit(s): 4

Second Semester Total: 15

First Year Total: 32

Second Year - Fall Semester

- ☐ GPHY 284 - Introduction to GIS Science and Cartography Credit(s): 4
- ☐ PHSX 205NL - College Physics I Credit(s): 5 *
- ☐ Humanities (H) Requirement Credits: 3
- ☐ Social Science (B) Requirement Credits: 3

First Semester Total: 15

Spring Semester

- ☐ GPHY 286 - Advanced GIS Credit(s): 4 *
- ☐ SRVY 275 - Analytic Photogrammetry and Remote Sensing Credit(s): 3 *
- ☐ Global Issues (G) Requirement Credits: 3
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credits: 3
- ☐ Social Science (A) Requirement Credits: 3

Second Semester Total: 16

Total Credits: 64

*Indicates prerequisite/corequisite needed. Check course description.

Optional Degree Courses:

Students will be able to satisfy additional degree requirements by taking the following courses as time permits:

- ☐ ENSC 245NL - Soils Credit(s): 4
- ☐ GPHY 121GA - Human Geography Credit(s): 3
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *

Optional Courses:

To further broaden their educational experience in geospatial technology, students may consider taking the following courses:

- ☐ GPHY 250 - Web GIS Credit(s): 2
- ☐ SRVY 245 - GPS Mapping Credit(s): 2 *
- ☐ SRVY 248 - Unmanned Aerial Mapping Systems Credit(s): 2
- ☐ SRVY 290 - Undergraduate Research: Projects in GIS Credit(s): 2 *

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
- ☐ 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 *[1]
- ☐ CHMY 143NL - College Chemistry II Credit(s): 5 * [1]
- ☐ M 115M - Probability and Linear Mathematics Credit(s): 3 * [2]

  OR
- ☐ M 171M - Calculus I Credit(s): 5 *
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 * [2]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Humanities (H) Requirement Credit(s): 3

First Year Total: 33-35

Second Year

- ☐ ENSC 245NL - Soils Credit(s): 4
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *
- ☐ Communications (C) Requirement Credit(s): 3 [3]
- ☐ 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 [4]
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Year Total: 35

Total Credits: 68-70

[1]Not required for Environmental Interpretation option. Take BIOB 170*, BIOB 171*, and GEO 101 instead.
[2]For Environmental Interpretation option only.
[3]Environmental Interpretation students must take COMX 111.
[4]Environmental Interpretation students must take PSYX 100.

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

****Depending on which related area you choose to pursue, the following electives may be worthwhile to take at FVCC:**

- ☐ BIOM 260N - General Microbiology Credit(s): 3 *
- ☐ BIOO 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 222 Physics II Credit(s): 5*

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Anita Ho, Ph.D.
LRC 129	RH 177
(406) 756-3885	(406) 756-3873
rlamson@fvcc.edu	aho@fvcc.edu

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 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

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 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Electives Credit(s): 9 **
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Social Sciences (A) Requirement Credit(s): 3

First Year Total: 32

Second Year

- ☐ BIOB 101NL - Discover Biology Credit(s): 4
  OR
- ☐ 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: 35

Total Credits: 67**

* 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
- ☐ 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
- ☐ 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 220NL - General Botany Credit(s): 4
- ☐ 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
- ☐ 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 220NL - General Botany Credit(s): 4
- ☐ 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 220NL - General Botany Credit(s): 4
- ☐ 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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Anita Ho, Ph.D.
LRC 129	RH 177
(406) 756-3885	(406) 756-3873
rlamson@fvcc.edu	aho@fvcc.edu

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 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.

Firearms Finishing, CTS

This certificate program is oriented toward metal finishing and work with gunstocks. 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. The program contains both lecture and significant hands-on training designed to instill an understanding of metal finishing and stock finishing techniques. Practical application of knowledge in a safe and professional manner is stressed. Emphasis is placed upon the completion of several gunsmith projects using a combination of both hand and machine tools. The student will acquire the basic knowledge to get started customizing guns. 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:

- Demonstrate proficiency in bluing metal parts by producing finished projects;
- Demonstrate how to properly prepare gun parts and apply selected finish to industry standard;
- Demonstrate the ability to inlet a barreled action to a semi-inlet stock blank;
- Use appropriate procedures to weld assigned projects;
- Demonstrate the techniques required to repair damaged checkering;
- Bed a synthetic stock blank to a barreled action;
- Demonstrate how to properly fit a 1911 pistol for reliable function;
- Demonstrate how to make custom sights and scope mounts and correctly install them; and
- Demonstrate the basics of running a milling machine: facing, slotting, slitting, boring, fly-cutting.

Required Courses

Fall Semester

☐ FT 200 - Introduction to Stock Inletting and Bedding Credit(s): 3 *
☐ FT 201 - Gun Bluing Credit(s): 3 *
☐ FT 202 - Advanced Metal Finishing Credit(s): 3 *
☐ MCH 134 - Introduction to Mills Credit(s): 4

First Semester Total: 13

Spring Semester

☐ FT 203 - Advanced Firearms Modification Credit(s): 3 *
☐ FT 204 - Pistolsmithing Credit(s): 3 *
☐ FT 205 - Checkering Credit(s): 3 *
☐ FT 206 - Synthetic Stocks Credit(s): 3 *
☐ WLDG 136 - GMAW/GTAW Welding and Certification Credit(s): 4 *

Second Semester Total: 16

Total Credits: 29

*Indicates prerequisites and/or corequisites needed. Check course description.

Admission Guildelines

- Applicants must be able to legally 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 is July 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center.

Student Support Center Advisor
Russ Lamson
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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Firearms Technologies, CTS

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 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 is mandatory and will be held the first three days of the semester.

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: July 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center.

Student Support Center Advisor
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Gainful Employment

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Forensic Science Transfer

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. 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

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

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 220NL - Physics I (with Calculus) 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 222NL - Physics II (with Calculus) Credit(s): 5 * [1,2]
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3

Second Semester Total: 17

Total Credits: 78

1 Forensic Biology to UGF: substitute BIOB 272 and BIOM 250 for M 172 and the Physics courses.
[2] Forensic Science to UGF: substitute CJUS 200 and CJUS 231 and STAT 216 for M 172 and the Physics courses.

*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 - 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
- ☐ STAT 216M - Introduction to Statistics 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
- ☐ GPHY 284 - Introduction to GIS Science and Cartography Credit(s): 4
- ☐ M 162M - Applied Calculus Credit(s): 5 * [1]

First Semester Total: 16

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: 65 **

[1] Take M 153 if not completing M 162 at FVCC.

*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:

- ☐ BIOO 235NL - Rocky Mountain Flora Credit(s): 3
- ☐ ENSC 272 - Water Resources Credit(s): 4
- ☐ PHSX 205NL - College Physics I Credit(s): 5 [1] *
- ☐ SRVY 245 - GPS Mapping Credit(s): 2 *

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	Faculty Advisor	Faculty Advisor
Russ Lamson	Tim Eichner, M.S.	Christina Relyea, Ph.D.
LRC 129	RH 155	BSS 103
(406) 756-3885	(406) 756-3898	(406) 756-3946
rlamson@fvcc.edu	teichner@fvcc.edu	crelyea@fvcc.edu

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Geography Transfer

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 bachelors 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 *
- ☐ Elective Credit(s): 15 **
- ☐ Natural Science (NL or N) Requirement Credit(s): 3

First Year Total: 32

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 *
- ☐ GPHY 121GA - Human Geography Credit(s): 3
- ☐ GPHY 141GA - Geography of World Regions Credit(s): 3
- ☐ SRVY 283 - GIS for Survey Analysis Credit(s): 4
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Natural Science (NL or N) Requirement Credit(s): 3
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Year Total: 33

Total Credits: 65

*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 * [1]
- ☐ 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): 6-7[3]
- ☐ Humanities (H) Requirement Credit(s): 3

First Year Total: 29-30

Second Year

- ☐ GPHY 121GA - Human Geography Credit(s): 3
- ☐ Elective Credit(s): 1[5]
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 3-5[2]
- ☐ Natural Science (NL or N) Requirement Credit(s): 3-5[2]
- ☐ Social Sciences (B) Requirement Credit(s): 3[4]

Second Year Total: 30-34

Total Credits: 60-64

The Univeristy of Montana options are Physical Geography, Cartography and GIS, Community and Environmental Planning, and General Geography without option.

[1]M 162 is required for the Physical Geography option as well as a sequential pair of science classes as noted next.

[2]Physical Geography majors have a choice of CHMY 121 **and** CHMY 123 **OR** BIOO 220 , BIOE 172 **and** BIOE 173 **OR** PHSX 205 **and** PHSX 207.

[3]Cartography and GIS students should take CSCI 111.

[4]Community and Environmental option should take PSCI 250 as a Humanities requirement or as an elective.

*Indicates prerequisite and/or corequiste needed. Check course description.

Advising Information:

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Geology Transfer

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

- ☐ 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 *
- ☐ 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: 37

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 205NL - College Physics I Credit(s): 5 * and
- ☐ PHSX 207NL - College Physics II Credit(s): 5 *

  OR
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 * and
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 *
- ☐ 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: 31

Total Credits: 68

*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 *
- ☐ 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**

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

**If course load allows, take PTRM 201 if seeking the Interdisciplinary option

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

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Russ Lamson	Anita Ho, Ph.D.
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Geospatial Technology, CTS

Knowledge of geospatial technology is an increasingly sought-after skill in industries ranging from natural resources to public health. This certificate program will develop skills needed to successfully use Geographic Information Systems (GIS) software and other related technologies in a professional setting. This program contains significant hands-on experiences in GIS, Global Positioning System (GPS) mapping, remote sensing, and unmanned aerial mapping systems, as well as individual capstone projects. This certificate will complement any major at FVCC and provide an opportunity for working professionals to develop geospatial skills required of their positions. Upon completion of this program, students will:

- Use a variety of GIS application programs to create and analyze geospatial data;
- Acquire geospatial data from GPS devices, existing Earth observation satellites, and unmanned aerial mapping systems;
- Design database structures to store and retrieve data;
- Present cartographic results in both print and web formats; and
- Implement independent projects which will include formulating spatial questions, identifying and acquiring necessary data, developing and implementing appropriate workflows, and summarizing results in both written and map formats.

Fall Semester

- ☐ GPHY 150 - Introduction to Geospatial Technology and Land Information Credit(s): 2
- ☐ GPHY 250 - Web GIS Credit(s): 2
- ☐ GPHY 284 - Introduction to GIS Science and Cartography Credit(s): 4
- ☐ SRVY 248 - Unmanned Aerial Mapping Systems Credit(s): 2
- ☐ SRVY 290 - Undergraduate Research: Projects in GIS Credit(s): 2 *

First Semester Total: 12

Spring Semester

- ☐ CSCI 111 - Programming with Java I Credit(s): 4
  OR
- ☐ CSCI 240 - Databases and SQL Credit(s): 3
  OR
- ☐ SRVY 280 - Land Surveying Computers Credit(s): 2 *
- ☐ GPHY 286 - Advanced GIS Credit(s): 4 *
- ☐ SRVY 245 - GPS Mapping Credit(s): 2 *
- ☐ SRVY 275 - Analytic Photogrammetry and Remote Sensing Credit(s): 3 *
- ☐ SRVY 290 - Undergraduate Research: Projects in GIS Credit(s): 2 *

Second Semester Total: 13-15

Total Credits: 25-27

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

Program Information

- Students employed in a professional setting may be able to satisfy the project requirements of the SRVY 290 credits within their current work responsibilities.
- Students in this program are expected to have a basic level of computer proficiency.
- Courses in this program include lab fees, approximately $20 per course.

Opportunities after Graduation

- The uses of geospatial technology are widespread and diverse, and as a result it is identified by the Department of Labor as a high-growth industry. Geospatial technology is used by anyone in need of understanding spatial relationships including the following professions: forestry, wildlife biology, environmental science, hydrology, planning, public health, criminal justice, homeland security, emergency management, business, and engineering, among many others. The national geospatial technology market is growing at an annual rate of almost 35 percent (Geospatial Information & Technology Association).

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Tim Eichner, M.S.
LRC 129	RH 155
(406) 756-3885	(406) 756-3898
rlamson@fvcc.edu	teichner@fvcc.edu

Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Goldsmithing and 3D Jewelry Design, CAS & AAS

The Goldsmithing and 3D Jewelry Design program prepares students for careers as independent studio artists, designers, and studio technicians within the jewelry industry. Students will become proficient in computer modeling, fabrication, casting, stone setting, forming, repair, and design. Upon completion of this program, students will:

- Fabricate jewelry;
- Design and produce jewelry using CAD/CAM;
- Cast jewelry in various forms;
- Utilize a variety of stone setting techniques;
- Perform a variety of surface treatments;
- Forge and form unique components using both anticlastic and synclastic forming techniques;
- Use a hydraulic press and die making for forming;
- Perform basic jewelry repair; and
- Exhibit a professional jewelry portfolio representing various aspects of the jewelry industry.

Required Courses

First Year - Fall Semester

☐ ARTJ 210F - Jewelry and Metalsmithing I Credit(s): 3
☐ ARTJ 231 - 3D Jewelry Design and Modeling I Credit(s): 4
☐ ARTJ 250 - Wax Modeling and Casting I Credit(s): 3
☐ ARTZ 106F - Visual Language-2-D Foundations Credit(s): 3
☐ M 094~ - Quantitative Reasoning Credit(s): 4 *

First Semester Total: 17

Spring Semester

☐ ARTJ 211F - Jewelry and Metalsmithing II Credit(s): 3 *
☐ ARTJ 232 - 3D Jewelry Design and Modeling II Credit(s): 4 *
☐ ARTJ 251 - Wax Modeling and Casting II Credit(s): 3 *
☐ ARTJ 260 - Stone Setting I Credit(s): 3 *
☐ BMGT 205C - Professional Business Communication Credit(s): 3 *

Second Semester Total: 16

CAS Total Credits: 33**

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

**Upon completion of the CAS program, students may choose to continue on to earn a Goldsmithing and 3D Jewelry Design, AAS degree.

Second Year - Fall Semester

☐ ARTJ 212 - Jewelry and Metalsmithing III Credit(s): 3 *
☐ ARTJ 220 - Forging and Smithing I Credit(s): 3 *
☐ ARTJ 233 - 3D Jewelry Design and Modeling III Credit(s): 4 *
☐ ARTJ 270 - Surface Embellishments I Credit(s): 3 *
☐ ARTZ 105F - Visual Language-Drawing Credit(s): 3

First Semester Total: 16

Spring Semester

☐ ARTJ 213 - Jewelry and Metalsmithing IV Credit(s): 3 *
☐ ARTJ 221 - Forging and Smithing II Credit(s): 3 *
☐ ARTJ 234 - 3D Jewelry Design and Modeling IV Credit(s): 4 *
☐ ARTJ 261 - Stone Setting II Credit(s): 3 *
☐ ARTJ 280 - Jewelry Repair I Credit(s): 3 *
☐ GDSN 274 - Portfolio Presentation Credit(s): 1 *

Second Semester Total: 17

AAS Total Credits: 66

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

Suggested Course Offering:

☐ BMGT 210 - Small Business Entrepreneurship Credit(s): 3

Program Information

- All courses within this degree program must be taken for a letter grade. No course may be taken on a Satisfactory/Unsatisfactory (S/U) basis.
- Students considering transfer to a four-year college: some of the courses will transfer as electives only. See your advisor.

Opportunities After Graduation

- This program prepares students for careers as independent studio artists, designers, and studio technicians within the jewelry industry.
- This program will prepare students for high-tech CAD/CAM positions in the jewelry industry.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
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Gainful Employment

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Graphic Design, AAS

Specific skills learned in this program include graphic design methodologies, such as the design process, output production, and presentation. Photography, design, drawing and video editing are core competencies. The students will learn Adobe software: Photoshop, Illustrator, InDesign, and Premiere. In addition, students will spend the second year learning web design and development. Students will also have a solid foundation in creating marketing plans, and writing contracts. 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 105F - Visual Language-Drawing Credit(s): 3
☐ ARTZ 106F - Visual Language-2-D Foundations 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 *
☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
OR
☐ WRIT 101W - College Writing I Credit(s): 3 *
☐ GDSN 248 - Digital Illustration II Credit(s): 3 *
☐ M 094~ - Quantitative Reasoning Credit(s): 4 *
☐ PHOT 154F - Exploring Digital Photography Credit(s): 3

Second Semester Total: 16

Second Year - Fall Semester

☐ BMKT 225 - Marketing Credit(s): 3
☐ ECNS 201B - Principles of Microeconomics Credit(s): 3
OR
☐ ECNS 202GB - Principles of Macroeconomics 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Jori Bullemer	Dawn Rauscher, M.Ed.
LRC 129	BSS 105
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Graphic Design, CAS

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, and InDesign. Color, resolution, input and output, production process, photography, and drawing are core competencies. 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

☐ GDSN 130 - Typography 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 094~ - Quantitative Reasoning Credit(s): 4 *

Second Semester Total: 17

Total Credits: 33

*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.

Opportunities After Graduation

- This program prepares students for a global market where they can find work as production artists, illustrators, graphic designers, photographers or web designers.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
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Health and Human Performance Transfer

Health and Human Performance

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 Food and Nutrition (Dietetics and Nutrition Science options):

First Year

- ☐ BIOB 160NL - Principles of Living Systems Credit(s): 4 [1]
- ☐ BIOB 170N - Principles of Biological Diversity Credit(s): 3 * [1]
- ☐ BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 * [1]
- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ CHMY 143NL - College Chemistry II Credit(s): 5 *
- ☐ M 152M - Precalculus Algebra Credit(s): 3 * [7]
  OR
- ☐ M 162M - Applied Calculus Credit(s): 5 * [4]
- ☐ PSYX 100A - Introduction to Psychology Credit(s): 4 [3]
- ☐ SOCI 101A - Introduction to Sociology Credit(s): 3 [3]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Social Sciences (B) Requirement Credit(s): 3 [2]

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 *
- ☐ BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 * 7
- ☐ CHMY 221NL - Organic Chemistry I Credit(s): 5 * [5, 6]
- ☐ CHMY 223NL - Organic Chemistry II Credit(s): 5 * [5, 6]
- ☐ 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: 38

Total Credits: 76-78 **

1 Both are required for Nutrition Science, take BIOB 160 for Dietetics.
2 Nutrition Science students can take any Social Sciences (B) course.
3 Both are required for Dietetics, any Social Sciences (A) course is fine for the Nutrition Science option.
4 Required for the Nutrition Science option.
5 Not required for Dietetics option.
6 Dietetics students should take ACTG 201, BCH 280 and BCH 281 if time permits.
7 Required for Dietetics option.

*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 *

Associate of Science Degree

Suggested course of study for a transfer to Montana State University - Bozeman in Health and Human Performance (Exercise Science and Kinesiology Option):

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 *[1]
- ☐ M 152M - Precalculus Algebra Credit(s): 3 *[2]
  OR
- ☐ M 162M - Applied Calculus Credit(s): 5 * [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 *
- ☐ Humanities (H) Requirement Credit(s): 3

First Year Total: 31-33

Second Year

- ☐ BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 *
- ☐ BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 *[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 *[4]
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) OR Fine Arts (FA) Requirement Credit(s): 3
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Year Total: 33

Total Credits: 64-66

1 Required only for Exercise Science option.
2 Take M 152 for Kinesiology option.
3 For those students planning on a PE/Health Education major, take M 115 instead of M 162.
4 Not required for Kinesiology option.

*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 in Health and Human Performance (Exercise Science and Kinesiology Option):

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
- ☐ PSYX 150 - Drugs and Society 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

First Year Total: 30

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 250NA - Fundamentals of Biological Psychology Credit(s): 3 *
- ☐ WRIT 201W - College Writing II Credit(s): 3 *
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) OR Fine Arts (F) 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.

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 152M - Precalculus Algebra 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 *
- ☐ Global Issues (G) Requirement Credit(s): 3

First Year Total: 35

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 * [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 * [1]
- ☐ HEE 220 - Introduction to Physical Education Credit(s): 3
- ☐ NUTR 221N - Basic Human Nutrition Credit(s): 3
- ☐ PHSX 205NL - College Physics I Credit(s): 5 *
- ☐ PHSX 207NL - College Physics II Credit(s): 5 *
- ☐ WRIT 201W - College Writing II Credit(s): 3 *
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3

Second Year Total: 37

Total Credits: 78

1 If pursuing Athletic Training.
2 If pursuing Exercise Science.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty 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.

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.

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 * 1
- ☐ 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[1]
  OR
- ☐ NASX 105G - Introduction to Native American Studies Credit(s): 3 [2]
  OR
- ☐ NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3 [2]
- ☐ 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

1 If pursuing the Community Health option.
2 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 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 172 if time permits or take a 2 credit 300-level ecology course at U of M to satisfy an additional science requirement.

Health Care Informatics Transfer

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
- ☐ CAPP 131 - Basic MS Office Credit(s): 2
- ☐ CAPP 158 - MS Access Credit(s): 3
- ☐ ITS 164 - Networking Fundamentals Credit(s): 3
- ☐ 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
- ☐ Social Sciences (B) Requirement Credit(s): 3

First Year Total: 33

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
- ☐ 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
- ☐ Mathematics (M) Requirement Credit(s): 3

OR

- ☐ Natural Science (N or NL) Requirement Credit(s): 3
- ☐ Social Sciences (A) Requirement Credit(s): 3

Second Year Total: 33

Total Credits: 66**

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
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(406) 756-3905	(406) 756-3858
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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.

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

(This program is also offered at the 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 105 - Health Care Delivery Credit(s): 3
☐ AHMS 127 - Medical Document Formatting Credit(s): 2 *
☐ AHMS 144 - Medical Terminology Credit(s): 3
☐ BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 *
OR
☐ M 120 - Mathematics with Health Care Applications Credit(s): 3 *
☐ BIOH 104NL - Basic Human Biology with Lab Credit(s): 4

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 156 - Medical Billing Fundamentals 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 175 - Medical Law and Ethics Credit(s): 3
☐ 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

Second Semester Total: 17

Total Credits: 66-67

*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.
- 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Suport Center Advisor	Faculty Advisor (Kalispell)	Faculty Advisor (Libby)
Jori Bullemer	Brenda Rudolph, M.B.A.	Chad Shilling, M.B.A.
LRC 129	BSS 106	LCC Room #105
(406) 756-3905	(406) 756-3858	(406) 293-2721, ext. 233
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Health Occupations, CTS

Designed in collaboration with local health care employers, the Health Occupations Certificate of Technical Studies 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): 6
OR
☐ NRSG 106 - Nursing Assistant Course Credit(s): 5 *
☐ 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
☐ M 120 - Mathematics with Health Care Applications Credit(s): 3 *

Total Credits: 16-19

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

Program Information

- 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 NRSG 106 have limited enrollment. Contact your advisor for more 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 NRSG 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center.

Student Support Center Advisor
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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Heating, Ventilation and Air Conditioning, CTS

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 related 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:

- Differentiate between the use of ammeters, voltmeters, watt meters, and multi-meters in testing and trouble-shooting electrical components;
- Summarize the functional aspects of various electromechanical control systems;
- Explain the fundamentals of operations of a boiler;
- Explain the significance of heating and cooling loads;
- Interpret detailed instructions for electrical circuits; and
- Explain the concepts of a refrigerant cycle diagram and label each of the basic components.

Required Courses

Fall Semester

☐ ECP 104 - Workplace Safety Credit(s): 1
☐ ELCT 241 - Electric Motor Controls Credit(s): 3
☐ HVC 101 - HVAC Fundamentals Credit(s): 2
☐ HVC 120 - Boiler Operator Certification Credit(s): 2
☐ HVC 130 - HVAC Electrical Credit(s): 3
☐ HVC 140 - HVAC Systems I Credit(s): 3 *

First Semester Total: 14

Spring Semester

☐ ELCT 111 - Electric Meters and Motors Credit(s): 3
☐ ETEC 130 - Panel Wiring and Soldering 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: 14

Total Credits: 28

*Indicates prerequisite or corequisite needed. Check course description.

Optional Program Offerings:

☐ HVC 198 - Internship: Basic HVAC Credit(s): 1-3 *
☐ HVC 295 - HVAC Field Experience I Credit(s): 10 *

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center.

Student Support Center Advisor
Will Richards
OT 204
(406) 756-4862
wrichards@fvcc.edu

Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Heavy Equipment Operator, CTS

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

Fall Semester

☐ ECP 104 - Workplace Safety Credit(s): 1
☐ HEO 100 - Commercial Truck Driver Credit(s): 4
OR
☐ HEO 120 - Heavy Equipment: Service and Operation Credit(s): 4
☐ HEO 105 - Introduction to Heavy Equipment Operator Credit(s): 8

First Semester Total: 13

Spring Semester

☐ HEO 110 - Heavy Equipment Operator II Credit(s): 12 *
☐ WLDG 111 - Welding Theory I Practical Credit(s): 4

Second Semester Total: 16

Total Credits: 29

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

Optional Course Offerings:

☐ HEO 198 - Heavy Equipment Operator Internship Credit(s): 10 *
☐ WLDG 122 - Welding Theory III Practical Credit(s): 4 *
☐ WLDG 185 - Welding Qualification Test Preparation Credit(s): 2 *

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	**Program Advisor**
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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

History Transfer

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
- ☐ HSTR 101B - Western Civilization I Credit(s): 4
  OR
- ☐ HSTR 102B - Western Civilization II Credit(s): 4
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Electives Credit(s): 6 [2]
- ☐ Humanities (H) Requirement Credit(s): 5[1]
- ☐ Humanities (H) Requirement Credit(s): 5[1]
- ☐ Natural Science (NL) Requirement Credit(s): 3

First Year Total: 29

Second Year

- ☐ HSTA 101B - American History I Credit(s): 4
  OR
- ☐ HSTA 102B - American History II Credit(s): 4
- ☐ HSTR 284G - Environmental History Credit(s): 3
- ☐ Electives Credit(s): 12 [2]
- ☐ 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: 31

Total Credits: 60

1 A full year of a single foreign language is required at MSU. Students may take it as the Humanities general education requirement. A student may also demonstrate competency at the 102 level by testing out of this requirement at MSU.

2 Alternate HSTA 101/102, HSTR 101/102, HSTA 255 count as history electives upon transfer to MSU.

*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

- ☐ 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 [1]
- ☐ 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): 9 [1]
- ☐ Humanities (H) Requirement Credit(s): 3
  OR
- ☐ Fine Arts (F) Requirement Credit(s): 3
- ☐ Natural Science (N or NL) Requirement Credit(s): 3
- ☐ Social Sciences (A) Requirement Credit(s): 3

Second Year Total: 32

Total Credits: 61-62

1 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. A student may also demonstrate competency at the 102 level by testing out of this requirement at UM.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Rob Bauer, Ph.D.
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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.

Human Services Transfer

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.

Transfer Articulation Agreement

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 2017. Students will be required to go to UM to meet with other members of the cohort and professors at least once or twice each semester. The courses in this program are sequential in nature so a student must attend each semseter 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 five of the eight out-of-department courses plus the UM Social Work equivalent courses (HS 100, 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 The University of Montana - Missoula:

First Year

- ☐ BIOB 101NL - Discover Biology Credit(s): 4 [3]
- ☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- ☐ ECNS 101GB - Economic Way of Thinking Credit(s): 3
- ☐ HS 100A - Introduction to Human Services/Social Work Credit(s): 3 *
- ☐ PSYX 100A - Introduction to Psychology Credit(s): 4 [3]
- ☐ SOCI 101A - Introduction to Sociology Credit(s): 3 [3]
- ☐ 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 3
- ☐ PSYX 230A - Developmental Psychology Credit(s): 3 * [3]
- ☐ PSYX 233 - Fundamentals of Psychology of Aging Credit(s): 3 [3]
- ☐ SOCI 220GA - Race, Gender and Class Credit(s): 3 [3]
- ☐ Electives Credit(s): 6 [1]
- ☐ 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 [2]

Second Year Total: 33

Total Credits: 62

1 PSYX 264 is a highly recommended elective that doesn't directly transfer for a specific class but will prepare the student for future classes.
2 PSYX 250 is preferred.
3 These courses are the eight out-of-department courses.

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
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Human Services, AAS

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 * and
☐ HS 295 - Field Experience I Credit(s): 3 *
OR
☐ HS 294 - Placement Seminar II Credit(s): 1 * and
☐ HS 295 - Field Experience II Credit(s): 3 *
☐ Specialty Course Credit(s): 3
☐ Specialty Course Credit(s): 3

First Semester Total: 16

Spring Semester

☐ HS 294 - Placement Seminar I Credit(s): 1 * and
☐ HS 295 - Field Experience I Credit(s): 3 *
OR
☐ HS 294 - Placement Seminar II Credit(s): 1 * and
☐ HS 295 - Field Experience II Credit(s): 3 *
☐ Specialty Course Credit(s): 12

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 215A - 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: 64-66

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
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Industrial Machine Technology with Engineering Transfer

This program is designed to give students instruction in the theory and operation of mills and lathes, both manual and CNC, as well as hands-on experience. It also provides instruction in other tools related to the machinist's trade and associated programming. Further, it provides freshman and sophomore level classes to prepare students who wish to transfer to a program in mechanical engineering. Upon completion of this program, students will:

- 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;
- Produce programs using G code; and
- Demonstrate techniques that are used on manual mills and lathes.

Associate of Science Degree with Industrial Machine Technology, CAS

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

First Year - Fall Semester

- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ ECP 104 - Workplace Safety Credit(s): 1 [1]
- ☐ M 152M - Precalculus Algebra Credit(s): 3 * [1]
- ☐ MCH 101 - Introduction to Manufacturing Processes Credit(s): 1 [1]
- ☐ MCH 120 - Blueprint Reading and Interpretation for Machining Credit(s): 3 [1]
- ☐ MCH 129 - Machine Quality Control and Precision Measurements Credit(s): 3 [1]
- ☐ MCH 132 - Introduction to Engine Lathes Credit(s): 4 * [1]

First Semester Total: 20

Spring Semester

- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3 [2]
- ☐ DDSN 135 - Solidworks Credit(s): 3 [1]
- ☐ M 153M - Precalculus Trigonometry Credit(s): 4 *
- ☐ MCH 125 - Introduction to CNC Lathe Operations Credit(s): 3 * [1]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

Second Semester Total: 16

Second Year - Fall Semester

- ☐ EGEN 105 - Introduction to General Engineering Credit(s): 1
- ☐ M 171M - Calculus I Credit(s): 5 *
- ☐ MCH 134 - Introduction to Mills Credit(s): 4 [1]
- ☐ 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

- ☐ M 172M - Calculus II Credit(s): 5 *
- ☐ MCH 102 - Introduction to Manufacturing Materials Credit(s): 2 [1]
- ☐ MCH 122 - Introduction to CAM Credit(s): 3 [1]
- ☐ MCH 127 - Introduction to CNC Mill Operations Credit(s): 3 * [1]
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 *

Second Semester Total: 18

Third Year

Fall Semester

- ☐ M 273M - Multivariable Calculus Credit(s): 5 *
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 *
- ☐ Additional Engineering Requirement Credit(s): 6

First Semester Total: 16

Spring Semester

- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 *
- ☐ Additional Engineering Requirement Credit(s): 8
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) or Fine Arts (F) Requirement Credit(s): 3

Second Semester Total: 19

Total Credits: 111

1 Students who complete theses courses are eligible to earn a CAS in Industrial Maching Technology.
2 This course is an acceptable substitution for the Related Instruction Communications requirement for the Industrial Machine Technology CAS.

*Indicates prerequisite or corequisite required. Check course description.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty 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.

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.

Industrial Machine Technology, CTS, CAS & AAS

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, CTS

First Year - Fall Semester

☐ ECP 104 - Workplace Safety Credit(s): 1
☐ M 114 - Extended Technical Mathematics Credit(s): 3 *
OR
☐ M 152M - Precalculus Algebra 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

Machinist Technician Tier II, CTS

Spring Semester

☐ BMGT 205C - Professional Business Communication Credit(s): 3 * [1]
OR
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
☐ DDSN 135 - Solidworks Credit(s): 3
☐ 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 *

Second Semester Total: 17

1 This course may be substituted with WRIT 122, Introduction to Business Writing, which is offered at other colleges in the Montana University System.

Industrial Machine Technology CAS Total Credits: 36

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.

Machinist Technician Tier III, CTS

Second Year - Fall Semester

☐ ID 115 - Workforce Preparation for Occupational Trades Credit(s): 1
☐ MCH 199 - Capstone I: Machinist Credit(s): 2 *
☐ 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: 19

Machinist Technician Tier IV, CTS

Spring Semester

☐ BMGT 205C - Professional Business Communication Credit(s): 3 * [1]
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 II: Machinist Credit(s): 3 *

Second Semester Total: 16

1 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.

Industrial Machine Technology AAS Total Credits: 71

Note: Upon completion of Tiers I, II, III and IV, a student has met the requirements for an AAS, but may not receive both a Tier IV CTS and an AAS.

Optional Course Offering:

☐ MCH 298 - Internship: Advanced Manufacturing Credit(s): 1 *

Admission Guidelines

- It is recommended that students complete the Machinist Technician Tier I program before entering the Tier II program.

Program Information

- Both BMGT 205 and COMX 115 must be completed by students who want to graduate with an AAS degree.
- 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Program Advisor.

Student Support Center Advisor

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Program Advisor

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Industrial Maintenance, CTS, CAS, & AAS

Industrial maintenance refers to the career path of providing maintenance, troubleshooting and repair, and improvement of complex machines and automation systems to support manufacturing and other industries. The industrial maintenance field has experienced and is projected to grow at above average rates during the next 10 years. An industrial mechanic employs a wide range of skills including electrical and electronics, machining, welding, and hydraulics in order to maintain industrial systems. Upon completion of this program, students will:

- Identify characteristics of various motor types and proper employment of each type;
- Employ procedures to determine the electrical materials, equipment, and application of code and regulations to support various electrical installations for both commercial and industrial projects:
- Troubleshoot analog and digital circuits using standard and specialized test equipment;
- Employ mill and lathe systems in building designated projects;
- Proficiently weld on a single plate, and two connecting pieces of ferrous metals;
- Demonstrate proficiency in welding SMAW or GMAW in desired position;
- Explain the principles of hydraulics; and
- Identify hydraulic devices and symbols and explain their functions.

Industrial Maintenance Tier I, CTS

First Year - Fall Semester

☐ ELCT 100 - Introduction to Electricity Credit(s): 3
☐ ELCT 110 - Basic Electricity I Credit(s): 5 *
☐ ELCT 137 - Electrical Drafting Credit(s): 2
OR
☐ MCH 120 - Blueprint Reading and Interpretation for Machining Credit(s): 3
OR
☐ WLDG 117 - Blueprint Reading and Welding Symbols Credit(s): 3
☐ M 114 - Extended Technical Mathematics Credit(s): 3 *
OR
☐ M 152M - Precalculus Algebra Credit(s): 3 *
☐ MCH 132 - Introduction to Engine Lathes Credit(s): 4 *

First Semester Total: 17-18

Industrial Maintenance Tier II, CTS

Spring Semester

☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
OR
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
☐ DDSN 135 - Solidworks Credit(s): 3
OR
☐ ETEC 130 - Panel Wiring and Soldering Credit(s): 2
☐ ECP 104 - Workplace Safety Credit(s): 1
☐ ELCT 111 - Electric Meters and Motors Credit(s): 3
☐ MCH 127 - Introduction to CNC Mill Operations Credit(s): 3 *
☐ WLDG 111 - Welding Theory I Practical Credit(s): 4

Second Semester Total: 16-17

CAS Total Credits: 33-35

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 CTS and a CAS.

Industrial Maintenance Tier III, CTS

Second Year - Fall Semester

- ☐ ELCT 250 - Programmable Logic Controllers Credit(s): 4
- ☐ ETEC 245 - Digital Electronics Credit(s): 4 *
- ☐ ID 115 - Workforce Preparation for Occupational Trades Credit(s): 1
- ☐ PPT 201 - Introduction to Hydraulic and Pneumatic Systems Credit(s): 4
- ☐ WLDG 185 - Welding Qualification Test Preparation Credit(s): 2 *
- ☐ Electives from Optional Course Offerings Credit(s): 2-4**

First Semester Total: 17-19

Industrial Maintenance Tier IV, CTS

Spring Semester

- ☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
  OR
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ ELCT 247 - Medium and High Voltage Credit(s): 3
- ☐ PPT 202 - Advanced Hydraulic and Pneumatic Systems Credit(s): 4 *
- ☐ WLDG 136 - GMAW/GTAW Welding and Certification Credit(s): 4 *
  OR
- ☐ WLDG 210 - Pipe Welding Credit(s): 4 *
- ☐ Electives from Optional Course Offerings Credit(s): 2-4**

Second Semester Total: 16-18

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

AAS Total Credits: 66-72

Note:

Upon completion of Tiers III and IV, a student has met the requirements for the AAS, but may not receive both the Tier IV CTS and an AAS.

****Optional Course Offerings:**

- ☐ ELCT 102 - Electrical Fundamentals II Credit(s): 4 *
- ☐ MCH 101 - Introduction to Manufacturing Processes Credit(s): 1
- ☐ MCH 102 - Introduction to Manufacturing Materials Credit(s): 2
- ☐ MCH 125 - Introduction to CNC Lathe Operations Credit(s): 3 *
- ☐ MCH 129 - Machine Quality Control and Precision Measurements Credit(s): 3
- ☐ MCH 134 - Introduction to Mills Credit(s): 4
- ☐ WLDG 100 - Introduction to Welding Fundamentals Credit(s): 3
- ☐ WLDG 122 - Welding Theory III Practical Credit(s): 4 *
- ☐ WLDG 145 - Fabrication Basics I Credit(s): 2 *

Program Information

- Students who transfer from Electronics or Machining or Welding after their first year will have taken seven credits of math, communications, and workplace safety. They will need to make up 7-11 credits of coursework from the first year of Industrial Maintenance. The exceptions are ELCT 100 and ELCT 110, which are offered in the fall and summer semesters.
- Industries such as large-scale manufacturing including wood products, energy generation, petroleum refining, chemical processing, automotive, aviation/aerospace, rail, ship, and trucking all employ mechanical systems that require maintenance as well as repair. This program provides a student with the necessary instruction to meet the wide range of challenges encountered in these industries by maintenance personnel.
- Upon completion of Tiers I and II, a student has met the requirements for the Certificate of Applied Science (CAS), but may not receive both a Tier II Certificate of Technical Studies (CTS) and the CAS. Similarly, upon completion of Tiers I, II, III, and IV, a student has met the requirements for the AAS degree, but may not receive both the Tier IV CTS and the AAS degree.

Opportunities after Graduation

- Industrial maintenance is projected to grow 15-30% over the next 10 years in Montana.
- Industrial maintenance workers typically earn wages above the median.

Advising Information:

For more information about this program, contact the FVCC Student Support Center.

Student Support Center Advisor
Will Richards
OT 204
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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Information Technology, AAS

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 094~ - Quantitative Reasoning 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 2017/2019
☐ ITS 164 - Networking Fundamentals Credit(s): 3
Offered 2017/2019
☐ ITS 210 - Network Operating System-Desktop Credit(s): 3
Offered 2018/2020
☐ ITS 212 - Network Operating System-Server Admin Credit(s): 3
Offered 2017/2019
☐ ITS 218 - Network Security Credit(s): 3
Offered 2018/2020
☐ ITS 280 - Computer Repair and Maintenance Credit(s): 3
Offered 2018/2020

Fall Semester Total: 18

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
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Spring Semester

☐ CSCI 240 - Databases and SQL Credit(s): 3
Offered 2019/2021
☐ ITS 216 - Network Operating System-Directory Services Credit(s): 2 *
Offered 2018/2020
☐ ITS 221 - Project Management Credit(s): 3
☐ ITS 224 - Introduction to Linux Credit(s): 3
Offered 2019/2021
☐ ITS 235 - IT Design Lab Credit(s): 2 *
(Offered As Needed)
☐ ITS 258 - Routing and Switching Credit(s): 4 *
Offered 2018/2020
☐ 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.

Integrated Agriculture and Food Systems, AAS

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

☐ BIOB 110N - Plant Science Credit(s): 3
☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
OR
☐ WRIT 101W - College Writing I Credit(s): 3 *
☐ BMGT 210 - Small Business Entrepreneurship Credit(s): 3
☐ M 114 - Extended Technical Mathematics Credit(s): 3 *
☐ SFBS 146 - Introduction to Sustainable Food and Bioenergy Systems Credit(s): 3

First Semester Total: 15

Spring Semester

☐ AGSC 202 - Practical Farm Production and Equipment: Spring Credit(s): 4
☐ AGSC 298 - Internship: Agricultural Enterprise Credit(s): 3 *
☐ AGSC 298 - Internship: Campus Farm Credit(s): 3
☐ ANSC 100N - Introduction to Animal Science Credit(s): 3
☐ ENSC 245NL - Soils Credit(s): 4

Second Semester Total: 17

Second Year - Fall Semester

☐ AGSC 200 - Soil Nutrient Management Credit(s): 2 *
☐ AGSC 202 - Practical Farm Production and Equipment: Fall Credit(s): 4
☐ BMKT 225 - Marketing Credit(s): 3
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
☐ Electives Credit(s): 3

First Semester Total: 15

Spring Semester

☐ AGSC 230 - Agricultural Pest Management Credit(s): 5
☐ AGSC 241 - Field Crop Production Credit(s): 3 *
☐ ANSC 102 - Small Farm Animal Husbandry Credit(s): 3
☐ Electives Credit(s): 6

Second Semester Total: 17

Total Credits: 64

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center of the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
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LRC 129	RH 108
(406) 756-3885	(406) 756-4182
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Liberal Studies Transfer

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 **Montana State University - Bozeman** should complete two semesters of the same foreign language while earning their FVCC degree. For more information about these two programs please refer to www.msubillings.edu/msubonline/ or eu.montana.edu/online/degrees/completion with respective phone numbers of 1-800-565-6782 ext. 2888 and 1-800-534-1286.

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
- ☐ 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
- ☐ RLST 205 - Introduction to New Testament 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty 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.

Mathematics Transfer

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 a transfer to Montana State University - Bozeman, Montana Tech of The University of Montana, 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 [1]
  OR
- ☐ CSCI 113 - Programming with C++ I Credit(s): 4 *
- ☐ M 171M - Calculus I Credit(s): 5 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 15

Spring Semester

- ☐ M 172M - Calculus II Credit(s): 5 *
- ☐ M 221M - Introduction to Linear Algebra Credit(s): 4 *
- ☐ Fine Arts(F) Requirement Credit(s): 3
  OR
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 4-5[2]

Second Semester Total: 16-17

Second Year - Fall Semester

- ☐ M 225M - Introduction to Discrete Mathematics Credit(s): 4 *
- ☐ M 273M - Multivariable Calculus Credit(s): 5 *
- ☐ Natural Science (N or NL) Requirement Credit(s): 4-5 [2]
- ☐ Social Sciences (A) Requirement Credit(s): 3

First Semester Total: 16-17

Spring Semester

- ☐ M 242 - Methods of Proof Credit(s): 3 *
- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 * [3]
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3 [4]
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Semester Total: 17

Total Credits: 64-66

1 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.
2 Selection of science courses depends on what option you are seeking. PHSX 220 and PHSX 222 is commonly recommended and is required at Montana State University. Check with your advisor and catalog of your transfer institution.
3 Mathematics Education majors transferring to The University of Montana should take and EDU 270.
4 Recommended: PHL 101.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty 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.

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 Assistant, AAS

Medical Assistants are the only allied health professionals specifically trained to work in ambulatory settings such as physicians' offices, clinics, and group practices. These multi-skilled personnel can perform administrative and clinical procedures. Physicians value this unique versatility and view medical assistants as vital partners in the medical office. Upon successful completion of this program, students will have the knowledge and skills to perform:

- Computer applications such as scheduling appointments, updating patient demographics, correspondence, coding, billing and insurance;
- Patient reception, arranging for hospital admissions, laboratory services, and referrals;
- Professional communication when working with patients and staff in a medical office;
- Accurate patient medical histories and vital signs, prepare patients for examinations, assist with surgical treatments, collect and prepare laboratory specimens, perform basic laboratory tests, and electrocardiograms;
- Preparation, administration and documentation of medications and vaccines using safe practices, as directed by a licensed physician and authorizing prescription refills as directed;
- Triage in the office by messaging or telephone calls;
- Safe blood drawing using correct techniques;
- Removal of sutures and changing dressings;
- Medical and surgical aseptic techniques; and
- Patient education and health coaching.

Required Courses

First Year - Fall Semester

☐ AH 230 - Electronic Health Records Credit(s): 3
☐ AHMA 101 - Introduction to Medical Assisting Credit(s): 2
☐ AHMS 144 - Medical Terminology Credit(s): 3
☐ AMGT 112 - Keyboard Skillbuilding Credit(s): 1 * [1]
☐ BIOH 104NL - Basic Human Biology with Lab Credit(s): 4 *
☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 16

Spring Semester

☐ AHMA 201 - Medical Assisting Clinical Procedures I Credit(s): 4 *
☐ 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 *
☐ 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 *
☐ AHMA 230 - Advanced Medical Office Procedures Credit(s): 4 *
☐ BIOL 170 - Disease Processes/Pharmacology Credit(s): 4 *

First Semester Total: 17

Spring Semester

☐ AHMA 280 - Medical Assisting Exam Preparation Credit(s): 1
☐ AHMA 298 - Medical Assisting Externship Credit(s): 4 *
☐ AHMA 299 - Medical Assisting Portfolio Development Credit(s): 1 *

Second Semester Total: 6

Total Credits: 67

1 Medical Assistant program students should register for section 01 of this course.

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

Strongly Recommended Courses:

☐ ACTG 101 - Accounting Procedures I Credit(s): 4
☐ AHMS 210 - Basic Medical Coding Credit(s): 3 *
☐ AHMS 252 - Computerized Medical Billing Credit(s): 2
☐ 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
☐ M 120 - Mathematics with Health Care Applications Credit(s): 3 *
☐ PSYX 100A - Introduction to Psychology Credit(s): 4

Admission Guidelines

- Contact the program director for advising.
- Applications for formal acceptance into the Medical Assistant AAS program are accepted once a year. Applications are available after October 1 on the FVCC Medical Assistant program website or can be picked up from the program director (BC 119) and must be completed and returned by the first Friday in November. The Medical Assistant program has a maximum of 12 students in each graduating class.

Program Information

- The Medical Assistant program demands high academic and personal standards. Students considering this degree should familiarize themselves with the requirements.
- All requirements for the Medical Assistant program are stated in the Medical Assistant Handbook located on the FVCC Medical Assistant Program website or can be picked up from the program director.
- All AHMA classes above AHMA 101 must have program director's signature for admission and must be taken consecutively starting spring semester.
- Students are required to earn a "C" (2.0) or above in all non-medical assisting courses.
- Students are required to earn a "B-" (2.7) or above in all medical assisting courses above AHMA 101.

- Students are responsible for at least $250 of additional costs to cover uniforms, personal medical supplies, insurance and immunizations. Required current immunization costs will depend on each individual vaccine history.
- AHMA 298 is an externship class which involves 180 hours of unpaid work experience in various medical offices in the community. It is highly recommended that students have their own health insurance before starting the externship.
- All students are required to have a criminal background/registered sexual offender check done at the time of application to the program. Any discrepancies may result in denial of acceptance into the program. 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 working days from the date of notification. Failure to provide such information within the aforementioned timeframe can result in immediate dismissal from the program.
- Any student who exhibits unsuitable performance and/or behavior may be denied the right to complete 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 Medical Assistant Education Review Board (MAERB) 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
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33756
www.caahep.org

- Certifications
- Medical Assistant graduates are eligible to take the CMA (AAMA) Certification Examination administered by the Certifying Board of the American Association of Medical Assistants.
- Medical Assistant graduates are eligible to take the ASCP Board of Certification, Phlebotomy Technician, PBT (ASCP) national examination.
- Basic Life Support (BLS) CPR certification.

Opportunities after Graduation

- Medical Assisting is one of the nation's fastest growing careers, according to the United States Bureau of Labor Statistics.
- Certified Medical Assistants are in high demand due to the surge of technological advances in outpatient medical facilities and the growing number of aging Americans.
- Certified Medical Assistants are able to obtain additional certifications including Electrocardiography Technician, Phlebotomy Technician and Specialty Certified Medical Assistant in various medical fields. Some CMA's become medical office managers.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Karrie Bolivar	Chris Degenhardt, A.A., A.A.S.
LRC 129	BC 123 B
(406) 756-3880	(406) 756-4582
kbolivar@fvcc.edu	cdegenha@fvcc.edu

Medical Coding, AAS

(This program is also offered at the 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 104NL - Basic Human Biology with Lab Credit(s): 4 *
☐ 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 *
☐ BIOL 170 - Disease Processes/Pharmacology Credit(s): 4 *
☐ BMGT 205C - Professional Business Communication Credit(s): 3 *

Second Semester Total: 16

Second Year - Fall Semester

☐ AHMS 156 - Medical Billing Fundamentals Credit(s): 3
☐ AHMS 212 - CPT Coding Credit(s): 3 *
☐ AHMS 213 - ICD-10 Coding Credit(s): 3 *
☐ BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 *
OR
☐ M 120 - Mathematics with Health Care Applications Credit(s): 3 *
☐ BMIS 211 - Introduction to Business Decision Support Credit(s): 4

First Semester Total: 16-17

Spring Semester

☐ AHMS 220 - Medical Office Procedures Credit(s): 4 *
☐ AHMS 250 - Advanced Medical Coding Credit(s): 4 *
☐ AHMS 252 - Computerized Medical Billing Credit(s): 2
☐ BGEN 110 - Applied Business Leadership Credit(s): 3
☐ CAPP 156 - MS Excel Credit(s): 3

Second Semester Total: 16

Total Credits: 64-65

*Indicates prerequisite or corequisite needed. Check course description.

Optional Course Offering:

☐ AHMS 198 - Internship Credit(s): 3 *

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	Faculty Advisor (Kalispell Campus)	Faculty Advisor (Lincoln County Campus)
Jori Bullemer	Brenda Rudolph, M.B.A.	Chad Shilling, M.B.A.
LRC 129	BSS 106	LCC Room 105
(406) 756-3905	(406) 756-3858	(406) 293-2721 ext. 233
jbullemer@fvcc.edu	brudolph@fvcc.edu	cshilling@fvcc.edu

Medical Laboratory Technology, AAS

The MLT program will prepare graduates for entry into technician-level positions in a clinical laboratory environment in hospitals, physicians' offices, commercial laboratories, biotechnology, research laboratories, pharmaceutical companies, technical services and sales, or veterinary laboratories in the areas of hematology, blood bank, microbiology, and clinical chemistry. After completing all academic and clinical requirements of the program, students will be eligible to sit for the national certification exam and apply for state licensure. Upon completion of this program, students will:

- Demonstrate the expertise to prepare and identify specimens;
- Culture microorganisms to determine their identity and sensitivity to antibiotics;
- Conduct blood cell counts, analyze body fluids to determine biological and chemical components;
- Type, cross match and prepare blood for transfusions; and
- Exercise safety precautions and quality control throughout the laboratory.

Required Courses

First Year (Required Prerequisite Courses)

Fall Semester

- ☐ BIOB 160NL - Principles of Living Systems Credit(s): 4
- ☐ CHMY 121NL - Introduction to General Chemistry Credit(s): 4 *
- ☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 14

Spring Semester

- ☐ AHMA 220 - Phlebotomy Credit(s): 3 *
- ☐ AHMT 101 - Introduction to Medical Laboratory Technology Credit(s): 2
- ☐ 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 *

Second Semester Total: 16

Second Year (Program Courses)

Fall Semester

- ☐ AHMT 201 - Hematology Credit(s): 4 *
- ☐ AHMT 205 - Urinalysis and Body Fluids Credit(s): 3 *
- ☐ AHMT 210 - Immunology and Serology Credit(s): 3 *
- ☐ AHMT 215 - Coagulation Credit(s): 2 *
- ☐ AHMT 295 - Clinical I: Medical Laboratory Clinical Credit(s): 3 *

First Semester Total: 15

Spring Semester

- ☐ AHMT 230 - Immunohematology Credit(s): 5 *
- ☐ AHMT 235 - Clinical Microbiology Credit(s): 5 *
- ☐ AHMT 295 - Clinical II: Medical Laboratory Clinical Credit(s): 6 *

Second Semester Total: 16

Summer Semester

- ☐ AHMT 240 - Clinical Chemistry Credit(s): 5 *
- ☐ AHMT 295 - Clinical III: Medical Laboratory Clinical Credit(s): 4 *

Third Semester Total: 9

Total Credits: 70

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

Admission Guidelines

- Students must apply for select admission to the MLT program. This should occur the spring semester during which the applicant is completing the second semester of prerequisites.
- Applications are available after March 1 and must be completed and returned no later than the last Friday in April.
- Admission to the program is based upon the following:
- High school diploma or GED
- Evidence of academic achievement in the prerequisite courses taken prior to application
- Completion of all prerequisite courses before the end of spring semester
- An interview
- Students admitted into the program are required to have a background check and proof of health insurance.

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 CHMY 105 in preparation for CHMY 121; preparation math courses in preparation for M 115; and preparation writing courses in preparation for WRIT 101.
- A grade of "C" or higher is required for ALL non-AHMT prerequisite courses.
- Once a student is officially accepted or admitted into the MLT program, each AHMT 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 AHMT program. Remediation will be attempted after filling out an Action Plan Form to formulate a plan for improving performance in technical MLT courses.
- Program Accreditation: The Medical Laboratory Technology program is seeking accreditation through the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd., Suite 720, Rosemont, IL. 60018-5119; (773) 714-8880.
- Additional Costs: Students enrolled in courses with a laboratory component can expect additional lab fees.

Opportunities after Graduation

- According to the US Department of Labor, Bureau of Labor Statistics, this field is expected to grow 16% from 2014-2024 nationally.
- For Montana from 2014-2017 an increase of 4.5 % or 20 jobs annually is predicted.
- From 2014-2024 an 18.5 % increase is predicted in Montana.

Advising Information:

For more information about this program, contact the Faculty Advisor.

Faculty Advisor
Janice Alexander, Ph.D.
RH 107
(406) 756-3948
jalexand@fvcc.edu

Music Transfer

The Music Department curriculum provides students entry-level skills to specialize in teaching, performing, composing, conducting, digitizing, producing and managing programs in the field of music. Non-music majors are welcome to enroll in ensembles and music courses as electives and general education requirements.

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 **The University of Montana - Missoula. Montana State University - Bozeman'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. **The University of Montana - Missoula'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 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 * [1]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Elective Credit(s): 3
- ☐ Ensemble Credit(s): 1-2**
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Mathematics (M) Requirement Credit(s): 3
- ☐ Natural Science (NL) Requirement Credit(s): 4
- ☐ Social Sciences (A) Requirement Credit(s): 3 [2]

First Year Total: 34-35

Second Year

- ☐ MUSI 205 - Music Theory III Credit(s): 3 *
- ☐ MUSI 206 - Music Theory IV Credit(s): 3 *
- ☐ MUSI 240 - Aural Perception III Credit(s): 2 *
- ☐ MUSI 241 - Aural Perception IV Credit(s): 2 *
- ☐ MUSI 295 - Applied Music II Credit(s): 1 * [1]
- ☐ NASX 232G - Montana Indians: Cultures, Histories, Current Issues Credit(s): 3
- ☐ Communications (C) Requirement Credit(s): 3 [2]
- ☐ Communications (C) Requirement Credit(s): 3

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

  OR
- ☐ Social Sciences (A or B) Requirement Credit(s): 3 [3]

  OR
- ☐ WRIT 201W - College Writing II Credit(s): 3 *
- ☐ Ensemble Credit(s): 1-2**
- ☐ Natural Science (NL or N) Requirement Credit(s): 3
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Year Total: 28-29

Total Credits: 62-64

1 Students need to take this course both fall and spring semesters.

2 Students interested in Music Education should take PSYX 100 and COMX 111 respectively for these requirements. In addition, the following courses are recommended for students interested in Music Education: EDU 201, EDU 270, and HEE 233.

3 For education, take PSYX 230.

NOTE: Students interested in pursuing a specialized degree in instrumental performance/voice/education should take MUSI 230 and MUSI 231.

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

Suggested course of study for 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 * [1]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Ensemble Credit(s): 1-2 **
- ☐ Global Issues (G) Requirement Credit(s): 3 [2]
- ☐ 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: 33-35

Second Year

- ☐ MUSI 202H - Introduction to Music Literature Credit(s): 3
- ☐ MUSI 205 - Music Theory III Credit(s): 3 *
- ☐ MUSI 206 - Music Theory IV Credit(s): 3 *
- ☐ MUSI 238 - Piano Proficiency Assessment Credit(s): 0
- ☐ MUSI 240 - Aural Perception III Credit(s): 2 *
- ☐ MUSI 241 - Aural Perception IV Credit(s): 2 *
- ☐ MUSI 295 - Applied Music II Credit(s): 1 * [1]
- ☐ MUSI 296 - Upper Division Required Performance Credit(s): 0
- ☐ Communications (C) Requirement Credit(s): 3 [2]
- ☐ Elective Credit(s): 3
- ☐ Ensemble Credit(s): 1-2**
- ☐ Natural Science (NL or N) Requirement Credit(s): 3
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Year Total: 28-29

Total Credits: 61-64

1 Students need to take this course both fall and spring semesters.

2 Students interested in Music Education should take NASX 105, PSYX 100, COMX 111 or THTR 122 respectively for these requirements. In addition, students interested in Music Education should consider taking the following courses as time allows: EDU 201, EDU 270, and HEE 233.

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

Notes:

- Please note additional music electives must be approved in advance by the The University of Montana Music Department Chair.
- Students interested in pursuing a specialized degree in composition should take MUSI 180.

****Ensembles:**

- ☐ MUSI 108 - Orchestra: FVCC Credit(s): 1
- ☐ MUSI 108 - Orchestra: Glacier Symphony Credit(s): 1 *
- ☐ MUSI 112 - Choir: Glacier Chorale Credit(s): 1 *
- ☐ MUSI 114 - Band: Community Band Credit(s): 1
- ☐ MUSI 147 - Choral Ensemble: FVCC Credit(s): 1
- ☐ MUSI 162 - Chamber Ensembles: FVCC Credit(s): 1

Additional MUSI elective options available on the FVCC campus:

- ☐ MUSI 101F - Enjoyment of Music Credit(s): 3
- ☐ MUSI 111 - Singing for Non-Majors Credit(s): 2
- ☐ MUSI 132F - History of Rock and Roll Credit(s): 3
- ☐ MUSI 160 - Beginning Guitar Credit(s): 3
- ☐ MUSI 194 - Seminar Workshop: Orchestra Credit(s): 2
- ☐ MUSI 194 - Seminar Workshop: Vocal/Chorus Credit(s): 2
- ☐ MUSI 202H - Introduction to Music Literature Credit(s): 3
- ☐ MUSI 207FG - World Music Credit(s): 3
- ☐ MUSI 260 - Intermediate Guitar Credit(s): 3

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Amber Paulson	Nicole Sanford, M.A.
LRC 129	AT 105
(406) 756-3882	(406) 756-4813
apaulson@fvcc.edu	nsanford@fvcc.edu

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.

Natural Resources Conservation and Management, AAS

The Natural Resources Conservation and Management program prepares students to work as technicians collecting and interpreting environmental information. This program is designed to develop practical skills in measuring forest and water resources, field navigation and surveying, insect and disease identification, soil health, recreation management, and using geospatial technology to document and understand our world. Successful graduates have obtained jobs for both government agencies and private companies, including: timber cruisers; silviculture technicians; recreation specialists; wildland firefighters; field conservationists; and fire lookout staff. The US Forest Service is the number one employer of our graduates. 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;
- Understand how soil and water health impact ecosystems;
- 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
☐ FORS 272 - Inventory of Natural Resources Credit(s): 4 *
☐ GPHY 284 - Introduction to GIS Science and Cartography Credit(s): 4
☐ PTRM 201 - Recreation Management Credit(s): 2

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.

Opportunities After Graduation

- Many employment opportunities are with federal, state and county governmental agencies. Employment opportunities also exist within private industry. 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	Faculty Advisor	Faculty Advisor
Russ Lamson	Tim Eichner, M.S.	Christina Relyea, Ph.D.
LRC 129	RH 155	BSS 103
(406) 756-3885	(406) 756-3898	(406) 756-3946
rlamson@fvcc.edu	teichner@fvcc.edu	crelyea@fvcc.edu

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.

Nondestructive Testing with Engineering-Welding Option II Transfer

This program is designed to provide students training and experience in nondestructive testing methods. Nondestructive testing involves the inspection of material or a welded object in a manner that will not impair its future usefulness. Further, it provides freshman and sophomore level classes to prepare students who wish to transfer to a program in welding engineering. Upon completion of this program, students will:

- Demonstrate safe practices for nondestructive testing;
- Summarize the rules and regulations of radiation safety and characteristics of x-ray and gamma radiation;
- Illustrate electromagnetic principles and use the equipment;
- Discuss ultrasonic theory and apply its techniques;
- Summarize magnetic particle testing formulas, methods, applications, limitations, material sensitivity, and calibration;
- Summarize liquid penetrant formulas, methods, applications, and limitations; and
- Follow a written procedure that has been created from a Code or Standard.

Associate of Science Degree with Nondestructive Testing, CAS

Suggested course of study for a transfer to Montana Tech of Montana State University

First Year - Fall Semester

- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ EGEN 105 - Introduction to General Engineering Credit(s): 1
- ☐ EWLD 110 - Introduction to Nondestructive Testing Credit(s): 3 [1]
- ☐ EWLD 121 - Radiographic Testing I Credit(s): 2 [1]
- ☐ M 152M - Precalculus Algebra Credit(s): 3 * [1]
- ☐ WLDG 111 - Welding Theory I Practical Credit(s): 4 [1]

First Semester Total: 18

Spring Semester

- ☐ CHMY 143NL - College Chemistry II Credit(s): 5 *
- ☐ ECP 104 - Workplace Safety Credit(s): 1 [1]
- ☐ EWLD 111 - Liquid Penetrant and Magnetic Particle Testing Credit(s): 3* [1]
- ☐ EWLD 122 - Radiographic Testing II Credit(s): 3 *[1]
- ☐ M 153M - Precalculus Trigonometry Credit(s): 4 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

Second Semester Total: 19

Second Year - Fall Semester

- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
- ☐ EWLD 113 - Ultrasonic Testing I Credit(s): 3 [1]
- ☐ EWLD 115 - Eddy Current Testing Credit(s): 3 [1]
- ☐ M 171M - Calculus I Credit(s): 5 *
- ☐ Social Sciences (B) Requirement Credit(s): 3

First Semester Total: 17

Spring Semester

- ☐ EWLD 114 - Ultrasonic Testing II Credit(s): 3* [1]
- ☐ EWLD 125 - AWS D1.1 Code Book Credit(s): 2 [1]
- ☐ M 172M - Calculus II Credit(s): 5 *
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 *
- ☐ Social Sciences (A) Requirement Credit(s): 3

Second Semester Total: 17

Third Year

Fall Semester

- ☐ M 273M - Multivariable Calculus Credit(s): 5
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5
- ☐ Additional Engineering Requirements: 6
- ☐ Humanities (H) Requirement Credit(s): 3

First Semester Total: 19

Spring Semester

- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 *
- ☐ Additional Engineering Requirements: 8
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3

Second Semester Total: 19

Total Credits: 110

1 Students who complete these courses are eligible to earn a Nondestructive Testing, CAS.

*Indicates prerequisite and/or corequisite needed. See course description.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Will Richards	Effat Rady, Ph.D.
OT 204	RH 110
(406) 756-4862	(406) 756-3375
wrichards@fvcc.edu	erady@fvcc.edu

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 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.

Nondestructive Testing, CAS

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;
- Summarize the rules and regulations of radiation safety and characteristics of x-ray and gamma radiation;
- Illustrate electromagnetic principles and use the equipment;
- Discuss ultrasonic theory and apply ultrasonic techniques;
- Summarize magnetic particle testing formulas, methods, applications, limitations, material sensitivity, and equipment calibration;
- Summarize liquid penetrant formulas, methods, applications and limitations; and
- Follow a written procedure that has been created from a Code or Standard.

Required Courses

Fall Semester

☐ EWLD 110 - Introduction to Nondestructive Testing Credit(s): 3
☐ EWLD 113 - Ultrasonic Testing I Credit(s): 3 *
☐ EWLD 115 - Eddy Current Testing Credit(s): 3 *
☐ EWLD 121 - Radiographic Testing I Credit(s): 2
☐ M 114 - Extended Technical Mathematics Credit(s): 3 *
OR
☐ M 152M - Precalculus Algebra Credit(s): 3 *
☐ WLDG 111 - Welding Theory I Practical Credit(s): 4

First Semester Total: 18

Spring Semester

☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
☐ ECP 104 - Workplace Safety Credit(s): 1
☐ EWLD 111 - Liquid Penetrant and Magnetic Particle Testing Credit(s): 3 *
☐ EWLD 114 - Ultrasonic Testing II Credit(s): 3 *
☐ EWLD 122 - Radiographic Testing II Credit(s): 3 *
☐ EWLD 125 - AWS D1.1 Code Book Credit(s): 2 *

Second Semester Total: 15

Total Credits: 33

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

Recommended Course Offering:

☐ WLDG 185 - Welding Qualification Test Preparation Credit(s): 2 *

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	**Program Advisor**
Will Richards	Sam Brown
OT 204	OT 120A
(406) 756-4862	(406) 756-4412
wrichards@fvcc.edu	sabrown@fvcc.edu

Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Nursing: Practical Nursing, CAS

(This program is also offered at the Lincoln County Campus.)

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 completing of this program, students will:

- Implement health promotion and disease prevention that is cost effective, comprehensive and coordinated;
- Engage patient and families as partners in evidenced-based, ethical care, while respecting individual preference;
- Integrate current research findings, expert opinion, clinical reasoning, and patient preferences in implementing a plan of care;
- Demonstrate cooperation, coordination, and communication among team members, patients, and community populations to improve quality and enhance patient safety;
- Recognize and assist in ongoing assessment of patient and systems with the goal of providing the highest level of patient care and outcomes;
- Participate in utilization of technology as a member of the care team, to gather data, manage information, and improve communication to support clinical decisions;
- Recognize basic safety principles and utilizes safety enhancing technology to reduce risk of harm to self and others.

Fall Semester (Required Prerequisites):

☐ BIOH 104NL - Basic Human Biology with Lab Credit(s): 4
☐ M 120 - Mathematics with Health Care Applications Credit(s): 3 *
☐ PSYX 100A - Introduction to Psychology Credit(s): 4
☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 14

Spring Semester

☐ NRSG 130 - Fundamentals of Nursing Credit(s): 3 *
☐ NRSG 131 - Fundamentals of Nursing Laboratory Credit(s): 3 *
☐ NRSG 135 - Pharmacology for Practical Nurses Credit(s): 3 *
☐ NRSG 136 - Pharmacology for Practical Nurses Laboratory Credit(s): 2 *
☐ NRSG 152 - Gerontology and Community Nursing Credit(s): 2 *
☐ NRSG 153 - Gerontology and Community Nursing Clinical Credit(s): 2 *

Second Semester Total: 15

Summer Semester

☐ NRSG 140 - Adult Health Nursing Credit(s): 4 *
☐ NRSG 141 - Adult Health Nursing Clinical Credit(s): 3 *
☐ NRSG 142 - Nursing Care of Women and Children Credit(s): 3 *
☐ NRSG 143 - Nursing Care of Women and Children Clinical Credit(s): 1 *
☐ NRSG 148 - Leadership Issues for Practical Nurses Credit(s): 2 *
☐ NRSG 149 - Leadership Issues for Practical Nurses Clinical Credit(s): 1 *

Third Semester Total: 14

Total Credits: 43

*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 at http://www.fvcc.edu/nursing. In order to be considered for acceptance into the practical nursing program, the student must have:
- 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 104, M 120, PSYX 100, and WRIT 101;
- Selective GPA of at least 2.50 (out of 4.0 scale) in all prerequisite courses;
- Completion of the human biology course 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;
- Please see Nursing Program Information Packet at www.fvcc.edu/nursing for required immunizations;
- Must be in certificate status at FVCC with all records required on file;
- Signed application and $20.00 non-refundable processing fee receipt; and
- 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 provide proof of immunizations required 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:

Myrna Ridenour, MSN, RN
BC 102-A
(406) 756-3997
mridenour@fvcc.edu

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	Faculty Advisor	Faculty Advisor
Karrie Bolivar	Diane Bailey, M.S.	Sarah Wangerin, B.S.N.
LRC 129	BC 102-B	BC 102-C
(406) 756-3880	(406) 756-3626	(406) 756-3943
kbolivar@fvcc.edu	dbailey@fvcc.edu	swangerin@fvcc.edu

For general information, contact:

Cathy Fabel, Nursing Program Assistant
BC 102
(406) 756-3385
cfabel@fvcc.edu

Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Nursing: Registered Nursing, ASN

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:

- Develop and lead programs of health promotion and disease prevention that is cost effective, comprehensive and coordinated;
- Engage patient and families as partners in evidenced-based, ethical care, while respecting individual preference;
- Analyze and integrate current research findings, expert opinion, clinical reasoning, and patient preferences in developing and implementing plan of care;
- Promote and lead cooperation, coordination, and communication among team members, patients, and community populations to improve quality and enhance patient safety;
- Provide ongoing assessment and analysis of patients and systems with the goal of providing the highest level of patient care and outcomes;
- Demonstrate the ability to utilize technology to gather and analyze data, manage information, and improve communication among team members and across systems to support clinical decisions; and
- Participate as a team member to design, promote, and model effective use of technology to reduce the risk of harm to self and others.

Required Prerequisites (Any Semester):

☐ BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 *
☐ CHMY 121NL - Introduction to General Chemistry Credit(s): 4 *
☐ M 115M - Probability and Linear Mathematics Credit(s): 3 *
☐ WRIT 101W - College Writing I Credit(s): 3 *

Prerequisites Total: 14

First Year - Fall Semester

☐ BIOH 211NL - Human Anatomy and Physiology II Credit(s): 4 *
☐ NRSG 230 - Nursing Pharmacology Credit(s): 3 *
☐ NRSG 231 - Nursing Pharmacology Lab Credit(s): 2 *
☐ NRSG 232 - Foundations of Nursing Credit(s): 3 *
☐ NRSG 233 - Foundations of Nursing Lab Credit(s): 3 *

First Semester Total: 15

Spring Semester

☐ NRSG 234 - Adult Nursing I Credit(s): 3 *
☐ NRSG 235 - Adult Nursing I Clinical Credit(s): 2 *
☐ NRSG 236 - Health and Illness of Maternal Nursing Credit(s): 2 *
☐ NRSG 237 - Health and Illness of Maternal Nursing Clinical Credit(s): 1 *
☐ NRSG 256 - Pathophysiology Credit(s): 3 *
☐ PSYX 100A - Introduction to Psychology Credit(s): 4

Second Semester Total: 15

Second Year - Fall Semester

☐ NRSG 244 - Adult Nursing II Credit(s): 3 *
☐ NRSG 245 - Adult Nursing II Clinical Credit(s): 2 *
☐ NRSG 246 - Health and Illness of Child and Family Nursing Credit(s): 2 *
☐ NRSG 247 - Health and Illness of Child and Family Nursing Clinical Credit(s): 1 *
☐ NRSG 254 - Mental Health Concepts Credit(s): 3 *
☐ NRSG 255 - Mental Health Concepts Clinical Credit(s): 1 *
☐ SOCI 101A - Introduction to Sociology Credit(s): 3

Third Semester Total: 15

Spring Semester

☐ BIOM 250NL - Microbiology for Health Sciences Credit(s): 4 *
☐ NRSG 259 - Adult Nursing III Credit(s): 3 *
☐ NRSG 260 - Adult Nursing III Lab Credit(s): 1 *
☐ NRSG 261 - Adult Nursing III Clinical Credit(s): 2 *
☐ NRSG 266 - Managing Client Care for the RN Credit(s): 2 *
☐ NRSG 267 - Managing Client Care for the RN Clinical Credit(s): 2 *

Fourth Semester Total: 14

Total Credits: 73

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

Admission Guidelines

- Applications for formal acceptance into the ASN program are accepted once a year. Applications are available at http://www.fvcc.edu/nursing. In order to be considered for acceptance into the ASN program, the student must have:
- Completed or be currently enrolled in and in the process of completing required prerequisite courses with a grade of "B-" or higher in BIOH 201, and "C" or higher in CHMY 121, M 115 , and WRIT 101;
- A selective GPA of 2.75 (out of 4.0 scale) in all prerequisite courses;
- Completed BIOH 201 , BIOH 211, and CHMY 121 within five years of acceptance into the Nursing program (Individuals who have completed an associate's or bachelor's degree may request evaluation by the Nursing Program Director for a possible exception.);
- Completed required immunizations (Please see Nursing Program Information Packet at www.fvcc.edu/nursing.);
- Degree status at FVCC with all required records on file; and
- Submitted a signed application and $20.00 non-refundable processing fee receipt.
- Once offered placement, students must provide proof of current health insurance (FVCC Student Health Center does not meet this requirement), complete a background check, and provide proof of required immunizations to finalize the acceptance process.

Program Information

- The focus of the ASN curriculum is to offer education leading to the knowledge that supports the RN to provide direct care to clients, individuals or groups in a variety of structured settings with clear policies and procedures.
- Completion of the ASN degree does not guarantee FVCC's or the Montana University System's general education core is fulfilled.
- Once a student has applied and been accepted into the ASN program, each course can only be attempted once and must be passed with a grade of B- for the student to continue in the program.
- 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.
- The ASN 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 102-A
(406) 756-3997
mridenour@fvcc.edu

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**	**Faculty Advisor**
Karrie Bolivar	Diane Bailey, M.S.	Sarah Wangerin, B.S.N.
LRC 129	BC 102-B	BC 102-C
(406) 756-3880	(406) 756-3626	(406) 756-3943
kbolivar@fvcc.edu	dbailey@fvcc.edu	swangerin@fvcc.edu

For general information, contact:

Cathy Fabel, Nursing Program Assistant
BC 102
(406) 756-3385
cfabel@fvcc.edu

Paramedicine, AAS

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

Pre-Paramedicine Requirements:

☐ AHMS 144 - Medical Terminology Credit(s): 3
☐ BIOH 104NL - Basic Human Biology with Lab Credit(s): 4 *
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
OR
☐ COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
☐ M 120 - Mathematics with Health Care Applications 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 *

First 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 *

Second 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 *

Third 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.
- 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 Service Learning 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) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
(727) 210-2350
www.caahep.org

Additional Costs

- ECP 200, ECP 206, ECP 235, and ECP 250 are on-line 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 Kalispell Regional Healthcare clinical policy agreement standards (which includes vaccinations/immunizations or appropriate lab work to ensure adequate protection from communicable diseases).

Opportunities After Graduation

- 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.

Advanced Placement Policy

- The FVCC paramedic program provides advanced placement for qualified students. Advanced placement is any process where the program formally recognizes prior learning of a student and applies that recognition toward meeting the program requirements. Advanced placement is applied on a case-by-case basis and allows a student to "place out" of specified program didactic, laboratory, clinical or field internship placements. This may shorten the time for completion of the program and is often thought of as an alternative pathway to program completion and eligibility for the National Registry at the paramedic level. These types of students often include physicians, registered nurses, licensed or certified Advanced EMT's and licensed or certified paramedics.
- All students completing the program must demonstrate they have met ALL program requirements. Therefore, documentation of any student completing via an advanced placement policy must show how all of the program minimum didactic, laboratory, clinical or field requirements have been achieved through this process.
- All students, including those in advanced placement, completing the program are considered graduates and will be included in all outcomes reporting.
- Students wishing to obtain credit for prior experiential learning/work experience must meet all requirements found in the FVCC catalog under the section titled "Transfer and Grading."
- Evaluation of prior learning/advanced placement is requested by the student and evaluated by the Paramedicine Program Director for the final decision on acceptance or denial of the request.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Karrie Bolivar	Ryan Pitts, B.S.N.
LRC 129	BC 126-B
(406) 756-3880	(406) 756-4364
kbolivar@fvcc.edu	rpitts@fvcc.edu

Parks, Tourism, and Recreation Management Transfer

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 University of Montana 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
- ☐ 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: 16-17

Spring Semester

- ☐ BIOB 170N - Principles of Biological Diversity Credit(s): 3* [1]
- ☐ (or desired track electives)
- ☐ 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

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 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.

Second Year - Fall Semester

- ☐ ACTG 201 - Principles of Financial Accounting Credit(s): 4
- ☐ BIOE 172N - Introductory Ecology Credit(s): 3 [2]
- ☐ (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 [3]
  OR
- ☐ Social Sciences (B) Requirement Credit(s): 3 [3]
- ☐ Desired track electives Credit(s): 6-9 [4]

Second Semester Total: 13-16

Total Credits: 61-65 **

1,2 Students have a choice of one of these Biology classes.
3 This requirement will depend on which Economics course was taken.
4 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-Missoula 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
- ☐ GPHY 284 - Introduction to GIS Science and Cartography Credit(s): 4

Nature-Based Tourism Track:

- ☐ ANTY 101A - Anthropology and the Human Experience 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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Russ Lamson	Christina Relyea, Ph.D.
LRC 129	BSS 103
(406) 756-3885	(406) 756-3946
rlamson@fvcc.edu	crelyea@fvcc.edu

Patient Relations Specialist, CTS

(This program is also offered at the 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; and
- Use appropriate medical terminology.

Required Courses

Fall Semester

☐ AHMS 127 - Medical Document Formatting Credit(s): 2 *
☐ AHMS 144 - Medical Terminology Credit(s): 3
☐ AHMS 156 - Medical Billing Fundamentals 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 175 - Medical Law and Ethics Credit(s): 3
☐ AHMS 220 - Medical Office Procedures Credit(s): 4 *
☐ AHMS 252 - Computerized Medical Billing Credit(s): 2
☐ BGEN 122 - Applied Business and Allied Health Math Credit(s): 4 *
OR
☐ M 120 - Mathematics with Health Care Applications Credit(s): 3 *

Second Semester Total: 14-15

Total Credits: 28-29

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

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	Faculty Advisor (Kalispell Campus)	Faculty Advisor (Lincoln County Campus)
Jori Bullemer	Brenda Rudolph, M.B.A.	Chad Shilling, M.B.A.
LRC 129	BSS 106	LCC Room 105
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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Payroll Accounting, CAS

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 124 - Payroll Accounting Applications Credit(s): 3
☐ ACTG 180 - Payroll Accounting Credit(s): 2 *
☐ ACTG 202 - Principles of Managerial Accounting Credit(s): 4 *
☐ ACTG 207 - Advanced Accounting on Microcomputers Credit(s): 2 *
☐ 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Personal Trainer, CAS

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 104NL - Basic Human Biology with Lab Credit(s): 4 *
☐ 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 [1]
☐ HTH 110 - Personal Health and Wellness Credit(s): 3 [1]

First Semester Total: 15

Spring Semester

☐ KIN 201 - Basic Exercise Prescription Credit(s): 3 [2]
☐ KIN 203 - Functional Training Credit(s): 2 [2]
☐ KIN 215 - Fitness Assessment Techniques Credit(s): 3 [2]
☐ M 090~ - Introductory Algebra Credit(s): 4 *
☐ NUTR 221N - Basic Human Nutrition Credit(s): 3

Second Semester Total: 15

Total Credits: 30

1This course is only offered fall semester.
2This course is only offered spring semester.

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
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LRC 129	BC 126C
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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.

Gainful Employment

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Pharmacy Technology, CTS

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 a one-year program beginning fall semester only. Upon completion of this program, students will:

- Demonstrate the pharmacy technician's scope of practice;
- Demonstrate the following:
- 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;
- Professional interactions with the public, both face-to-face and via the phone;
- Appropriate and accurate calculations within a pharmacy setting;
- An understanding of quality control;
- An understanding of applicable state and federal laws;
- A knowledge of the top brand/generic drug names;
- Proper unit dose packaging;
- A knowledge of aseptic technique; and
- 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

- ☐ AHMS 144 - Medical Terminology Credit(s): 3
- ☐ BIOH 104NL - Basic Human Biology with Lab Credit(s): 4
- ☐ CAPP 120 - Introduction to Computers Credit(s): 3
- ☐ M 120 - Mathematics with Health Care Applications Credit(s): 3 *
- ☐ PHAR 100 - Introduction to Pharmacy Practice for Technicians Credit(s): 2 *

First Semester Total: 15

Spring Semester

- ☐ AH 117 - Medical Setting Customer Care and Privacy Credit(s): 1
- ☐ CHMY 160 - Pharmacology Credit(s): 3
- ☐ PHAR 198 - Internship: Hospital and Community Pharmacy Practice Credit(s): 8 *

Second Semester Total: 12

Total Credits: 27

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

Admission Guidelines

- Applications for formal acceptance into the Pharmacy Technology CTS program are accepted once a year. Applications are available after March 1 and must be completed and returned by the last day of spring semester. In order to be considered for acceptance into the Pharmacy Technology program, the student must have
- Applied to and been admitted by Flathead Valley Community College;
- A high school diploma or equivalency (GED or HiSET) and be 18 years of age by the first day of classes;
- Placed into M 120 or a grade of "SA" or "C" or higher in M 065~;
- Placed into WRIT 101; and
- Completed background check as listed in application packet.
- Students accepted into the program must have a comprehensive background check and occupational health clearance, along with proof of immunizations listed in application packet.
- Compliance with Health Insurance Portability and Accountability Act (HIPPA) policies is mandatory.
- Program Information
- Pharmacy Technology is a one-year certificate program starting 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center ir the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
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Gainful Employment

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Pharmacy Transfer

The curriculum offered by the School of Pharmacy at **The University of Montana - Missoula** leads to the Doctor of Pharmacy (Pharm.D.) degree. By earning the Associate of Science degree as prescribed, students will be academically prepared to apply to the competitive entry professional pharmacy program, and if accepted will be able to complete the professional pharmacy program at The University of Montana - Missoula in four years.

The application deadline for general admission into the Pharmacy program is listed each year at the PHARMCAS website (www.pharmcas.org). This deadline may be as early as November 1st of the year prior to the year for which admission is requested (Year 2 of the curriculum list below). The Pharmacy program may allow a rolling admission process, check with your advisor for current application process information and deadlines. Application materials are submitted directly via the PHARMCAS website. PHARMCAS is a national pharmacy application service many pharmacy schools across the United States use to handle the application process. Admission to The University of Montana-Missoula pharmacy program is separate from general admission to the university itself. 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 have a supervisor submit on their behalf a letter of recommendation and proof of having completed at least 20 hours of volunteer or paid service serving a patient population in a medical or social field at the time of application. Additionally, students must take the Pharmacy College Admissions Test (PCAT) prior to the application deadline. The PCAT is offered multiple times per year. The test registration deadline typically occurs two months or more prior to the scheduled test dates. Information on the PCAT can be found at http://www.pearsonvue.com/PCAT/.

The PCAT exam includes writing, general biology, microbiology, human anatomy and physiology, general chemistry, organic chemistry, biochemistry, critical reading, and quantitative reasoning. The quantitative reasoning section covers basic math through calculus as well as statistics.

Due to the PCAT exam subject areas, students are advised to have completed BIOB 160, BIOB 260, BIOH 211, CHMY 141, CHMY 143 and CHMY 221, M 162 and STAT 216, prior to taking the PCAT.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty 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.*

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 **

☐ Global Issues (G) Requirement Credit(s): 3
☐ Humanities (H) 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 1
OR
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3 1
☐ 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) or Fine Arts (F) Requirement Credit(s): 3

Second Semester Total: 15

Total Credits: 72-73

1 Students transferring without first earning an AA or AS degree should take COMX 111 to satisfy UM's Expressive Arts general education requirement.

*Indicates prerequisite and/or corequisite needed. Check course description.
**An alternative is to take BIOH 201* in the summer and push these general education requirements into the second year.

Recommended Course:

☐ BCH 280N - Biochemistry Credit(s): 3 *

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.

Phlebotomy Course

Hospitals and clinics rely on certified phlebotomists to collect blood specimens from patients. In AHMA 220 Phlebotomy, students learn proper blood drawing, safety procedures, basic anatomy and physiology, special procedures, quality management and legal issues involved in blood collection.

Through a combination of classroom instruction and clinical rotations for practical experience, students will prepare to take the Certified Phlebotomist Exam.

Plebotomy Course

This course is offered in the fall semester for Medical Assistant students only and in the spring semester for general students. An application and the instructor's signature are required prior to registering.

☐ AHMA 220 - Phlebotomy Credit(s): 3

For more information:

Contact Sam Kujala at skujala@fvcc.edu or at (406) 756-4364.

Physical Therapist Assistant, AAS

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 144 - Medical Terminology Credit(s): 3
☐ AHPT 105 - Introduction to Physical Therapist Assisting Credit(s): 3 [1]
☐ 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
☐ M 115M - Probability and Linear Mathematics Credit(s): 3 *
OR
☐ M 120 - Mathematics with Health Care Applications 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

1AHPT 105 is offered spring semester only.

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 * [1]
☐ 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 * [1]

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 * [1]

Third Semester Total: 7

Total Credits: 71-72

1AHPT 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:
- High school diploma or GED/HiSET
- 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)
- Clinical observation hours (minimum of 30 hours with at least 10 hours in an inpatient setting)
- An interview
- Essay
- Students admitted into the program are required to have a background check and drug screen and medical health insurance at the student's expense.
- Documentation of Immunization
- Evidence of CPR certification
- Two professional references

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 101; BIOB 160; or CHMY 121 in preparation for BIOH 201; prerequisite math courses in preparation for M 120; and prerequisite English classes in preparation for WRIT 101.
- 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 Service Learning office at (406) 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).

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**	**Faculty 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.

Physics Transfer

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 to in order to determine specific degree requirements.

Associate of Science Degree

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 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Elective (Recommend M 221 M *) Credit(s): 4
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Social Sciences (A) Requirement Credit(s): 3

First Year Total: 31

Second Year

- ☐ M 273M - Multivariable Calculus Credit(s): 5 *
- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 *
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 *
- ☐ PHSX 224 - Physics III Credit(s): 4 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3
- ☐ Natural Science (NL) Non-physics Elective Requirement Credit(s): 4[1]
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Year Total: 32

Total Credits: 63

1This 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.

Associate of Science Degree

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 *[1]
  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 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ Social Science (A) Requirement Credit(s): 3

First Year Total: 32

Second Year

- ☐ M 221M - Introduction to Linear Algebra Credit(s): 4 * [2]
  OR
- ☐ M 225M - Introduction to Discrete Mathematics Credit(s): 4 *[1]
- ☐ M 273M - Multivariable Calculus Credit(s): 5 *
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5
- ☐ PHSX 224 - Physics III Credit(s): 4
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3
- ☐ Global Issues (G) Requirement Credit(s): 3 [3]
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Year Total: 30

Total Credits: 62

1 If pursuing the Computational Physics option.

2 If pursuing the Physics option.

3 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.

Advising Information

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty 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.

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

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
- ☐ PSCI 230G - Introduction to International Relations Credit(s): 3
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Electives Credit(s): 9
- ☐ 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
- ☐ Natural Science (NL) Requirement Credit(s): 3

First Year Total: 33

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): 10 [1]
- ☐ Electives Credit(s): 6
- ☐ 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: 67

1Recommend FRCH 101 & FRCH 102 or GRMN 101 & GRMN 102 or ITLN 101 & ITLN 102 or RUSS 101 & RUSS 102 or SPNS 101 & SPNS 102 if pursuing an option in International Relations and Comparative Politics. Competency at the 201 level is required. Students may test out of part or all of this requirement by contacting UM directly.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Jori Bullemer	Ami Mezahav, Ph.D.
LRC 129	BSS 121
(406) 756-3905	(406) 756-4183
jbullemer@fvcc.edu	amezahav@fvcc.edu

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-Dental Hygiene Transfer

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.

Associate of Science Degree

Suggested course of study for a transfer to Great Falls College - Montana State University:

First Year - Fall Semester

- ☐ BIOB 160NL - Principles of Living Systems Credit(s): 4
- ☐ BIOH 201NL - Human Anatomy and Physiology I Credit(s): 4 *
- ☐ M 105M - Contemporary Mathematics Credit(s): 3 *
  OR
- ☐ M 152M - Precalculus Algebra Credit(s): 3 *
- ☐ PSYX 100A - Introduction to Psychology Credit(s): 4 1
- ☐ 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 *
- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
  OR
- ☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3 [1]
- ☐ SOCI 101A - Introduction to Sociology Credit(s): 3 [1]

Second Semester Total: 18++

1Program requirements which can be taken at FVCC to lighten the load when the student is in the Great Falls College - MSU Dental Hygiene program.

++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 [1]
- ☐ Electives Credit(s): 6
- ☐ 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

1 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 Information:

Many dental hygiene programs outside of Montana have similar prerequisites to those listed for Great Falls College - MSU. Students seeking to transfer to a dental hygiene school outside of Montana may be required to take some or all of the following courses as prerequisites, in addition to the courses outlined above.

- ☐ CHMY 123
- ☐ NUTR 221
- ☐ WRIT 121 or WRIT 201

Students should meet with one of the advisors listed below in order to determine the specific courses required for a particular dental hygiene program.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Adam Wenz, M.S.
LRC 129	RH 106
(406) 756-3885	(406) 756-3616
rlamson@fvcc.edu	awenz@fvcc.edu

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 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-Dental Transfer

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

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Russ Lamson	David Long, Ph.D.
LRC 129	RH 109
(406) 756-3885	(406) 756-3895
rlamson@fvcc.edu	dlong@fvcc.edu

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 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

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/.

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 [1]
  OR
- ☐ BIOB 256NL - Introduction Biology: Cells to Organisms Credit(s): 4 *[2]
- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ M 162M - Applied Calculus Credit(s): 5 *[3]
  OR
- ☐ M 171M - Calculus I Credit(s): 5 *[3]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 17

Spring Semester

- ☐ BIOB 170N - Principles of Biological Diversity Credit(s): 3 *[1]
  and
- ☐ BIOB 171L - Principles of Biological Diversity Laboratory Credit(s): 2 *[1]
  OR
- ☐ BIOB 260NL - Cellular and Molecular Biology Credit(s): 5 *[2]
- ☐ 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) OR Fine Arts (FA) Requirement Credit(s): 3

Second Semester Total: 19

Total Credits: 73

1 For students transferring to UM - Missoula.
2 For students transferring to MSU - Bozeman. For other schools, see an advisor to find out the required Biology sequence.
3 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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	David Long, Ph.D.
LRC 129	RH 109
(406) 756-3885	(406) 756-3895
rlamson@fvcc.edu	dlong@fvcc.edu

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 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

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.

Associate of Science Degree

Suggested course of study for a transfer 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.

The ASN program at SKC requires a background check prior to the application deadline.

Associate of Science Degree

Suggested course of study for a transfer 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 *
- ☐ NRSG 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

1 Students pursuing both the ASN and BSN at SKC should take M 115*, STAT 216* and SOCI 101.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Karrie Bolivar	Janice Alexander, Ph.D.
LRC 129	RH 107
(406) 756-3880	(406) 756-3948
kbolivar@fvcc.edu	jalexand@fvcc.edu

Faculty Advisor	**Faculty Advisor**
Lori Elwell, M.A.	Adam Wenz, M.S.
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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.

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-Physical Therapy Transfer

Physical therapy is a health care profession concerned with the rehabilitation of individuals who have limitations resulting from 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

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

Second Semester Total: 14

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 * [1]

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: 61

1 PSYX 230 is recommended but PSYX 240, PSYX 260, or SOCI 101 would also be acceptable prerequisites.

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

Strongly Recommended Course:

- ☐ BIOM 250 Microbiology for Health Sciences Credit(s): 4*

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	Faculty Advisor	Faculty Advisor
Russ Lamson	Janice Heil, M.A.	Julie Robertson, M.S.
LRC 129	BC 123-C	BC 123-D
(406) 756-3885	(406) 756-3373	(406) 756-3620
rlamson@fvcc.edu	jheil@fvcc.edu	jrobertson@fvcc.edu

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 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-Veterinary Medicine Transfer

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) 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	Faculty Advisor	Faculty Advisor
Russ Lamson	Mirabai McCarthy, Ph.D.	Ruth Wrightsman, Ph.D.
LRC 129	RH 143	RH 132
(406) 756-3885	(406) 756-3624	(406) 756-3878
rlamson@fvcc.edu	mmccarthy@fvcc.edu	rwrightsman@fvcc.edu

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 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.

Programming and Game Development, AAS

This program is designed to prepare students for entry into the field of software programming and game development. It provides students with a foundation in Java, windows programming, and mobile application programming. Game Development includes game theory, game programming, and a course in virtual/augmented reality. It should be noted that game platforms and technologies are often used in other non-gaming applications. Both the areas of programming and game development complement each other in terms of problem solving, programming, software analysis, software development, and practical applications. These skills are demanded by the software development community and this program is designed to meet those demands. Upon completion of this program, students will:

- Program Java SE applications;
- Program Windows applications;
- Program Android mobile applications;
- Have a foundation Game Design Theory; and
- Program 2D and 3D games.

Note:

Students starting in fall of 2017 will take CSCI 132, Basic Datastructures and Algorithms, in the fall of 2018 and the new CSCI 232, Data Structures and Algorithms, in spring of 2019. Java II will be removed from the sequence.

Required Courses

First Year - Fall Semester

☐ CSCI 111 - Programming with Java I Credit(s): 4 *
☐ M 153M - Precalculus Trigonometry Credit(s): 4 *
☐ MART 231 - Interactive Web I Credit(s): 4
☐ WRIT 101W - College Writing I Credit(s): 3 *

First Semester Total: 15

Spring Semester

☐ CSCI 113 - Programming with C++ I Credit(s): 4 *
☐ CSCI 121 - Programming with Java II Credit(s): 4 *
☐ CSCI 122 - Game Design Theory Credit(s): 3
☐ CSCI 240 - Databases and SQL Credit(s): 3
☐ PHSX 205NL - College Physics I Credit(s): 5 *

Second Semester Total: 19

Second Year - Fall Semester

☐ CSCI 206 - .NET Applications Credit(s): 4 *
☐ CSCI 208 - Game Programming I Credit(s): 4 *
☐ CSCI 238 - Standards-based Mobile Applications Credit(s): 4 *
☐ Electives Credit(s): 3

First Semester Total: 15

Spring Semester

☐ BGEN 204 - Business Fundamentals Credit(s): 3
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
☐ CSCI 209 - Game Programming II Credit(s): 4 *
☐ CSCI 220 - Virtual/Augmented Reality Credit(s): 4 *
☐ ITS 164 - Networking Fundamentals Credit(s): 3

Second Semester Total: 17

Total Credits: 66

*Indicates prerequisite/corequisite needed. Check course description.

Recommended Course Offerings:

☐ ARTJ 231 - 3D Jewelry Design and Modeling I Credit(s): 4
☐ DDSN 135 - Solidworks Credit(s): 3
☐ EMEC 103 - CAE I - Engineering Graphics Communication Credit(s): 3

Advising Information:

For more information, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Russ Lamson	Jim Goudy, M.S.
LRC 129	BSS 129
(406) 756-3885	(406) 756-3617
rlamson@fvcc.edu	jgoudy@fvcc.edu

Psychology 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** or **Montana State University - Bozeman**.

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
- ☐ PSYX 100A - Introduction to Psychology Credit(s): 4
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Communication (C) Requirement Credit(s): 3
- ☐ Electives Credit(s): 6
- ☐ Humanities (H) Requirement Credit(s): 3
- ☐ PSYX Elective Credit(s): 3

First Year Total: 30

Second Year

- ☐ PSYX 230A - Developmental Psychology Credit(s): 3 *
- ☐ Electives Credit(s): 6 [1]
- ☐ 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 [1]
- ☐ Social Sciences (B) Requirement Credit(s): 3

Second Year Total: 30

Total Credits: 60

1 MSU will accept PSYX 233, PSYX 240, PSYX 250, PSYX 260 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 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[1]
- ☐ 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 250NA - Fundamentals of Biological Psychology Credit(s): 3 *
- ☐ STAT 216M - Introduction to Statistics Credit(s): 4 *
- ☐ Electives Credit(s): 10 [1]
- ☐ Fine Arts (F) Requirement Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3

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

Second Year Total: 29

Total Credits: 60-62

1 Students may take PSYX 240 or PSYX 260 at FVCC, however the courses will not transfer as upper division equivalents. Students will need to take other 300/400-level courses at UM or re-take PSYX 340 or PSYX 360 to meet upper division requirements.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Stephanie Paidas, Ph.D.
LRC 129	BSS 126
(406) 756-3905	(406) 756-3864
jbullemer@fvcc.edu	spaidas@fvcc.edu

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.

Radiologic Technology, AAS

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, mammography, 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

☐ 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: 10

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

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: 72

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

Recommended Course Offering:

☐ BIOL 170 Disease Processes/Pharmacology Credit(s): 4

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:
    - High school diploma or GED/HiSET;
    - Evidence of academic achievement in the five prerequisite courses (a minimum of "C" must be earned in each class);
    - Observation in an imaging department and/or work experience in healthcare;
    - A well-written essay;
    - Positive references; and
    - 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 201 and BIOH 211, M 095~, WRIT 101. Students may be advised to take BIOB 101 or BIOB 160 in preparation for BIOH 201, prerequisite math courses in preparation for M 095~ and prerequisite English classes in preparation for WRIT 101. A grade of "C" or higher is required for ALL prerequisite courses.
- BIOH 201 and BIOH 211 completed five or more years ago will require program permission for transfer credit.
- Students who have already taken a 100 or higher level of math (excluding M 114, M 115 and STAT 216) are exempt from taking M 095~. Students with an appropriate score on the placement test are also exempt from M 095~ but must take a math class at a higher level (excluding M 114, M 115 and STAT 216).
- 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 Service Learning 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.
- 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	**Program Advisor**
Karrie Bolivar	Colleen Bench
LRC 129	Kalispell Regional Healthcare
(406) 756-3880	(406) 751-5767
kbolivar@fvcc.edu	cbench@krmc.org

Resource Conservation Transfer

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 University of Montana 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 The University of Montana 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:

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

Second Semester Total: 13

Second Year - Fall Semester

- ☐ BIOE 172N - Introductory Ecology Credit(s): 3
- ☐ BIOE 173L - Introductory Ecology Laboratory Credit(s): 1 *
- ☐ GPHY 284 - Introduction to GIS Science and Cartography 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: 60**

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

****Recommended electives to further broaden students' educational experience:**

- ☐ BIOO 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 *

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Russ Lamson	Christina Relyea, Ph.D.
LRC 129	BSS 103
(406) 756-3885	(406) 756-3946
rlamson@fvcc.edu	crelyea@fvcc.edu

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 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.

Sociology Transfer

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.

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 Cedit(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
- ☐ 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 *

First Year Total: 30

Second Year

- ☐ Electives Credit(s): 12
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities Requirement (H) 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 [1]

Second Year Total: 30

Total Credits: 60

1Students may take any FVCC SOCI course for lower division SOCI transfer to MSU.
*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
- ☐ SOCI 142 - 21st Century Popular Culture Credit(s): 3 [1]
- ☐ WRIT 101W - College Writing I Credit(s): 3 *
- ☐ Communications (C) Requirement Credit(s): 3
- ☐ Electives Credit(s): 6 [2]
- ☐ 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
- ☐ SOCI 260 - Introduction to Juvenile Delinquency Credit(s): 3 [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): 6 [2]
- ☐ Global Issues (G) Requirement Credit(s): 3
  OR
- ☐ Elective (if completed SOCI 220) 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

1 This is a general major lower division SOCI course at UM.

2 Any HS, PSYX, or SOCI courses are recommended to prepare the student for upper division courses.

3 This is a lower division, major content course at UM.

See Criminal Justice Transfer for the suggested program for those seeking the criminology option.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Jori Bullemer	Ami Mezahav, Ph.D.
LRC 129	BSS 121
(406) 756-3905	(406) 756-4183
jbullemer@fvcc.edu	amezahav@fvcc.edu

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

Due to changing educational requirements at the state level for licensed addiction counselors, this course of study is subject to change. Students should work closely with an advisor to determine their course of study.

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
- Understand a variety of models and theories of addiction and other problems related to substance abuse.
- Describe the behavioral, psychological, physical health, and social effects of psychoactive substances on the user and significant others.
- Understand treatment
- 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.
- Recognize the importance of family, social networks, and community systems in the treatment and recovery process.
- Apply knowledge
- Understand the established diagnostic criteria for substance use disorders and describe treatment modalities and placement criteria within the continuum of care.
- Provide treatment services appropriate to the personal and cultural identity and language of the client.
- Demonstrate professionalism
- Understand the importance of self-awareness in one's personal, professional, and cultural life.
- 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 [1]
- ☐ Mathematics (M) Requirement Credit(s): 3
- ☐ Social Sciences (B) Requirement Credit(s): 3 [2]

First Year Total: 33

Second Year

- ☐ CAS 248 - Substance Abuse Counseling II Credit(s): 3 *
- ☐ CAS 250 - Assessment and Case Management, Processes Credit(s): 4 *
- ☐ CAS 252 - Gambling and Gaming Disorders in Substance Abuse Counseling Credit(s): 2 *
- ☐ CAS 254 - Co-occurring Disorders in Substance Abuse Counseling 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 for Substance Abuse Counselors Credit(s): 3 *
- ☐ SOCI 220GA - Race, Gender and Class Credit(s): 3
- ☐ Humanities (H) Requirement Credit(s): 3
  OR
- ☐ Fine Arts (F) Requirement Credit(s): 3 [1]

Second Year Total: 35

Total Credits: 68

1Recommend PHL 110 and SPNS 101 for a total of 8 credits.

2 Recommend ECNS 101 or PSCI 210.

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

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

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	Faculty Advisor
Carlin Hale	Leanne Parker, Ph.D.
LRC 129	BSS 122
(406) 756-3886	(406) 756-3871
chale@fvcc.edu	lparker@fvcc.edu

Support Professional, CAS & AAS

(The Management option of this program is also offered at the Lincoln County Campus.)

This program combines business background with heavy emphasis on either computer or management skills. This program consists of a one-year Certificate of Applied Science (CAS), after which students may seek employment. Or, students can continue on to complete another year to earn an Associate of Applied Science (AAS) with an option in either Computer/Web Marketing or Management. Upon completion of this program, students will:

- Demonstrate mastery of 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 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.

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 *
☐ AHMS 220 - Medical Office Procedures Credit(s): 4 *
OR
☐ 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: 16-18

CAS Total Credits: 35-37

Note:

After completing the first year, students may continue on to an AAS degree in one of two specialized options: Computer/Web Marketing or Management.

Second Year

Computer/Web Marketing Option Fall Semester:

☐ CAPP 154 - MS Word Credit(s): 3
☐ CAPP 156 - MS Excel Credit(s): 3
☐ COMX 215 - Negotiations/Conflict Resolution Credit(s): 3
☐ ITS 280 - Computer Repair and Maintenance Credit(s): 3
☐ MART 231 - Interactive Web I Credit(s): 4

First Semester Total: 16

Spring Semester:

☐ BGEN 235 - Business Law Credit(s): 4
☐ 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 *
☐ ITS 221 - Project Management Credit(s): 3

Second Semester Total: 16

AAS Computer/Web Marketing Option Total Credits: 67-69

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

Management Option Fall Semester:

☐ BGEN 235 - Business Law Credit(s): 4
☐ BMGT 215 - Human Resource Management Credit(s): 3
☐ BMGT 235 - Management Credit(s): 3
☐ CAPP 156 - MS Excel Credit(s): 3
☐ COMX 215 - Negotiations/Conflict Resolution Credit(s): 3

First Semester Total: 16

Spring Semester:

☐ ACTG 102 - Accounting Procedures II Credit(s): 4 *
☐ ACTG 180 - Payroll Accounting Credit(s): 2 *
☐ BGEN 110 - Applied Business Leadership Credit(s): 3
☐ BGEN 298 - Internship Credit(s): 3 *
☐ BMGT 245 - Customer Service Management Credit(s): 3 *
☐ BMKT 131 - Introduction to Social Media Marketing Credit(s): 3 *

Second Semester Total: 18

AAS Management Option Total Credits: 69-71

*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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	Faculty Advisor (Kalispell Campus)	Faculty Advisor (Lincoln County Campus)
Jori Bullemer	Brenda Rudolph, M.B.A.	Chad Shilling, M.B.A.
LRC 129	BSS 106	LCC Room 105
(406) 756-3905	(406) 756-3858	(406) 293-2721 ext. 233
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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Surgical Technology, AAS

The Flathead Valley Community College Surgical Technology Associate of Applied Science (AAS) degree is a 70-credit program designed to develop skills in all phases of operating room procedures and techniques, including clinical experience in the operating room. Graduates of the program are ready to begin their career in the field as entry-level Surgical Technologists.

In addition to operating room techniques, surgical procedures, surgical instruments and equipment; students study surgical microbiology, surgical pharmacology, medical terminology, anatomy and physiology, asepsis (sterile technique), preparation of the patient for surgery and the physical conditions that make it necessary for a person to have surgery.

The associate's degree program in Surgical Technology is designed to provide students with the knowledge and technical skills required to obtain entry-level employment in the field of Surgical Technology. To achieve this goal, the curriculum prepares students in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains, while studying areas in general and specialty surgical procedures, principles of anesthesia, anatomy and physiology, medical terminology and surgical technology techniques. Additional coursework in general education assists the graduates in growing professionally and in developing the ability to assume leadership roles.

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:

- Consistently demonstrate the necessary training to assume responsibilities in the operating room, including aseptic technique, instrument setup, assisting the surgeon, anticipating the surgeon's needs, and assisting with post-operative care.
- Correlate the knowledge of anatomy, physiology, pathophysiology, and microbiology to their role as a Surgical Technologist.
- Implement safe practice techniques in regards to perioperative routines, patient transportation, positioning, and emergency procedures.
- Integrate principles of surgical asepsis as part of the perioperative experience.
- Apply knowledge, skills, and demonstrate ability to perform as a surgical technologist in the cognitive, psychomotor, and affective learning domains.
- Provide to the community professional, competent, and knowledgeable individuals who can provide surgeons and the surgical team quality assistance as a Surgical Technologist utilizing ethical standards and integrity.
- Display professionalism, be prepared to be a lifelong learner, and value the professional attributes of the Surgical Technologist.
- Possess the necessary didactic and clinical skills needed to pass the certification exam and enter into the job arena as a competent entry-level Surgical Technologist.
- The prerequisite 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 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 111C - Introduction to Public Speaking Credit(s): 3

OR

- ☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
- ☐ M 120 - Mathematics with Health Care Applications 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 *

First 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 *

Second Semester Total: 16

Spring Semester

- ☐ AHST 207 - Professional Development and Leadership Credit(s): 3 *
- ☐ AHST 255 - Advanced Surgical Clinical Credit(s): 10 *

Third Semester Total: 13

Total Credits: 70

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

Admission Guidelines

- Students must apply for select admission to the Surgical Technology program.
- Applications may be printed off of the FVCC Surgical Technology Program website or picked up in the Admissions Office or in the Surgical Technology Program Director's office, BC 126-A; must be returned no later than the first Friday in October. Once applicants have met all the program criteria, selected students will be interviewed by Surgical Technology faculty. Students will be informed of their admission status into the Surgical Technology program by the second Friday in November.

- Admission to the program is based upon the following:

1. High school diploma or GED/HiSET;
2. Successful completion of the prerequisite courses (a minimum grade of "C" (2.0) must be earned in each class with an overall GPA of at least a 2.75);
3. Surgical observation (Contact Program Director to discuss how this is accomplished);
4. An interview;
5. Essay;
6. Students admitted into the program are required to have a background check and drug screen at the student's expense (before the fall semester, after admittance);
7. Documentation of Immunization (before the fall semester, after admittance);
8. Evidence of CPR certification (before the fall semester, after admittance); and
9. Two professional references.

The above requirements associated with costs will be at the personal expense of the student, in addition to tuition and books.

Program Information

- Upon completion of the prerequisite courses, specific surgical technology (AHST) courses total three semesters. Surgical technology specific courses include 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 scores 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 Service Learning 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 program.
- Students enrolled in any of the AHST courses, are required to maintain an 80% grade average in each AHST course, in order to progress through 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.
- Additional Costs: Once accepted into the Surgical Technology program at FVCC, students may incur costs associated with travel to various locations required for clinical rotations, one of which may be outside of the Flathead Valley. In addition, students will be assessed lab fees per semester which covers durable lab items, certification exam, prep exam, AST membership dues and miscellaneous clinical/lab program fees.

Opportunities after Graduation

- Surgical Technologists are in demand. The federal Bureau of Labor Statistics projects faster-than-average employment growth (employment increase of 15% or more) over the period 2014-2024.
- Hospitals will continue to be the primary employer of Surgical Technologists, 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Karrie Bolivar	Rob Blackston, B.S.
LRC 129	BC 126-A
(406) 756-3880	(406) 756-4328
kbolivar@fvcc.edu	rblackston@fvcc.edu

Surveying, AAS

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 surveyor's 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]
☐ PHSX 110 - Applied Physics Credit(s): 4 * [2]
OR
☐ PHSX 126NL - General Science: Physical Science Credit(s): 5 * [2]
☐ 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 *

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: 69-70

1Another math sequence, which includes coursework through Calculus, may be substituted.
2Another physical science class may be substituted with advisor approval.

Additional Professional Development Program Offering:

☐ SRVY 290 - Undergraduate Research Credit(s): 1 *

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 the Admissions Office at (406) 756-3851 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Russ Lamson	Dave Dorsett, B.A., B.S.
LRC 129	RH 164
(406) 756-3885	(406) 756-3913
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Theatre Arts Studies Transfer

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 105M - Contemporary Mathematics 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
- ☐ 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.

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.

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

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**	**Faculty Advisor**
Amber Paulson	Rich Haptonstall, M.F.A.	Joe Legate, M.F.A.
LRC 129	AT 256	AT 255
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Web Technology, AAS

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 HTML, CSS, and Wordpress;
- 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 094~ - Quantitative Reasoning 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 optional 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

- Designing, developing and maintaining websites.
- Managing web technology projects or businesses.
- Continuing education in the areas of Computer Science, Graphic Design, Business, or Information Technology.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Faculty Advisor.

Student Support Center Advisor	**Faculty Advisor**
Jori Bullemer	Dawn Rauscher, M.Ed.
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Welding and Fabrication Technology, CTS, CAS and AAS

The Welding and Fabrication Technology 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 program 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, students will:

- Describe and demonstrate safe use of each type of welding equipment;
- Select and demonstrate various joining processes;
- Estimate type, quantity, cost, and weight of a welded fabrication from blueprint information;
- Demonstrate proper setup, adjustment, and use of typical cutting and welding equipment;
- Demonstrate proficiency in OXYFUEL, SMAW, GMAW, AND FCAW processes;
- Visually inspect and document proper applications of welding processes;
- Demonstrate techniques and devices for minimizing part distortion during welding;
- Apply advanced fabrication techniques including design, layout, fixturing and production welding that is commonly found throughout Fabrication Shops; and
- Develop and schedule the sequence to complete a fabrication project from start to finish including blueprints, estimating, quality control, and any coating requirements.

Welding and Fabrication Technology Tier II, CTS

Fall Semester

☐ EWLD 110 - Introduction to Nondestructive Testing Credit(s): 3
☐ M 114 - Extended Technical Mathematics Credit(s): 3 *
OR
☐ M 152M - Precalculus Algebra Credit(s): 3 *
☐ WLDG 100 - Introduction to Welding Fundamentals Credit(s): 3
☐ 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): 2 *

First Semester Total: 18

Welding and Fabrication Technology Tier II, CTS

Spring Semester

☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
OR
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
☐ DDSN 135 - Solidworks Credit(s): 3
☐ ECP 104 - Workplace Safety Credit(s): 1
☐ 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 *

Second Semester Total: 16

Welding and Fabrication Technology Tier III, CTS

Second Year - Fall Semester

☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
OR
☐ WRIT 101W - College Writing I Credit(s): 3 *
☐ ID 115 - Workforce Preparation for Occupational Trades Credit(s): 1
☐ MCH 132 - Introduction to Engine Lathes Credit(s): 4 *
☐ WLDG 119 - Welding Certification II Credit(s): 2 *
☐ WLDG 210 - Pipe Welding Credit(s): 4 *
☐ WLDG 220 - Welding Fabrication I Credit(s): 4 *

First Semester Total: 18

Welding and Fabrication Technology Tier IV, CTS

Spring Semester

☐ ELCT 105 - Electrical Circuitry Credit(s): 2
☐ EWLD 125 - AWS D1.1 Code Book Credit(s): 2 *
☐ WLDG 136 - 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: 16

*Indicates prerequisites and/or corequisites needed. 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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	Program Advisor
Will Richards	Mort Hill
OT 204	OT 107
(406) 756-4862	(406) 756-3996
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Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Welding and Fabrication Technology with Engineering-Option Transfer

This program is designed to provide students training and experience in welding and inspection technology as it pertains to assembly, manufacturing, energy, structural construction, and nondestructive testing. Students are provided education in AWS welding standards, and SMAW and FCAW processes. Further, it provides freshman and sophomore level classes to prepare students who wish to transfer to a program in welding engineering. Upon completion of this program, students will:

- Describe and demonstrate safe 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 blueprint information;
- Demonstrate proficiency in SMAW and FCAW processes; and
- Demonstrate techniques and devices for minimizing part distortion during welding.

Welding and Fabrication Technology with Engineering-Welding Option I Transfer

Associate of Science Degree with Welding and Fabrication Technology, CAS

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

First Year - Fall Semester

- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ ECP 104 - Workplace Safety Credit(s): 1 [1]
- ☐ M 152M - Precalculus Algebra Credit(s): 3 [1] *
- ☐ WLDG 100 - Introduction to Welding Fundamentals Credit(s): 3 [1]
- ☐ WLDG 111 - Welding Theory I Practical Credit(s): 4 [1]
- ☐ WLDG 117 - Blueprint Reading and Welding Symbols Credit(s): 3 [1]

First Semester Total: 19

Spring Semester

- ☐ CHMY 143NL - College Chemistry II Credit(s): 5 *
- ☐ DDSN 135 - Solidworks Credit(s): 3 [1]
- ☐ M 153M - Precalculus Trigonometry Credit(s): 4 *
- ☐ WLDG 122 - Welding Theory III Practical Credit(s): 4 [1] *
- ☐ WRIT 101W - College Writing I Credit(s): 3 *

Second Semester Total: 19

Second Year - Fall Semester

- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
- ☐ EGEN 105 - Introduction to General Engineering Credit(s): 1
- ☐ EWLD 110 - Introduction to Nondestructive Testing Credit(s): 3
- ☐ M 171M - Calculus I Credit(s): 5 *
- ☐ WLDG 145 - Fabrication Basics I Credit(s): 2 [1] *
- ☐ Social Sciences (B) Requirement Credit(s): 3

First Semester Total: 17

Spring Semester

- ☐ M 172M - Calculus II Credit(s): 5 *
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 *
- ☐ WLDG 146 - Fabrication Basics II Credit(s): 3 [1] *
- ☐ WLDG 185 - Welding Qualification Test Preparation Credit(s): 2 [1] *
- ☐ Social Sciences (A) Requirement Credit(s): 3

Second Semester Total: 18

Third Year

Fall Semester

- ☐ M 273M - Multivariable Calculus Credit(s): 5 *
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 *
- ☐ Additional Engineering Requirements: 6
- ☐ Humanities (H) Requirement Credit(s): 3

First Semester Total: 19

Spring Semester

- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 *
- ☐ Additional Engineering Requirements: 8
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3

Second Semester Total: 19

Total Credits: 111

1 Students who complete these courses are eligible to earn a Welding and Fabrication Technology, CAS.

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

Welding and Fabrication Technology with Engineering - Mechanical Option II

Associate of Science Degree with Welding and Fabrication Technology, CAS

Suggested course of study to Montana State University - Bozeman:

First Year - Fall Semester

- ☐ ECP 104 - Workplace Safety Credit(s): 1 [1]
- ☐ EGEN 105 - Introduction to General Engineering Credit(s): 1
- ☐ EWLD 110 - Introduction to Nondestructive Testing Credit(s): 3 [1]
- ☐ M 152M - Precalculus Algebra Credit(s): 3 * [1]
- ☐ WLDG 100 - Introduction to Welding Fundamentals Credit(s): 3 [1]
- ☐ WLDG 111 - Welding Theory I Practical Credit(s): 4 [1]
- ☐ WLDG 117 - Blueprint Reading and Welding Symbols Credit(s): 3 [1]

First Semester Total: 18

Spring Semester

- ☐ COMX 111C - Introduction to Public Speaking Credit(s): 3 [1]
- ☐ DDSN 135 - Solidworks Credit(s): 3 [1]
- ☐ EMEC 103 - CAE I - Engineering Graphics Communication Credit(s): 3
- ☐ M 153M - Precalculus Trigonometry Credit(s): 4 *
- ☐ WRIT 101W - College Writing I Credit(s): 3*

Second Semester Total: 16

Second Year - Fall Semester

- ☐ CHMY 141NL - College Chemistry I Credit(s): 5 *
- ☐ M 171M - Calculus I Credit(s): 5 *
- ☐ WLDG 145 - Fabrication Basics I Credit(s): 2 * [1]
- ☐ Social Science (A) Requirement Credit(s): 3
- ☐ Social Science (B) Requirement Credit(s): 3

First Semester Total: 18

Spring Semester

- ☐ M 172M - Calculus II Credit(s): 5 *
- ☐ PHSX 220NL - Physics I (with Calculus) Credit(s): 5 *
- ☐ WLDG 122 - Welding Theory III Practical Credit(s): 4 * [1]
- ☐ WLDG 146 - Fabrication Basics II Credit(s): 3 * [1]
- ☐ WLDG 185 - Welding Qualification Test Preparation Credit(s): 2 * [1]

Second Semester Total: 19

Third Year - Fall Semester

- ☐ M 273M - Multivariable Calculus Credit(s): 5 *
- ☐ PHSX 222NL - Physics II (with Calculus) Credit(s): 5 *
- ☐ Additional Engineering Requirement Credit(s): 6
- ☐ Humanities (H) Requirement Credit(s): 3

First Semester Total: 19

Spring Semester

- ☐ M 274M - Introduction to Differential Equations Credit(s): 5 *
- ☐ Additional Engineering Requirement Credit(s): 8
- ☐ Global Issues (G) Requirement Credit(s): 3
- ☐ Humanities (H) OR Fine Arts (F) Requirement Credit(s): 3

Second Semester Total: 19

Total Credits: 109

1 Upon completion these courses, students are elibible to earn a Welding and Fabrication Technology, CAS.

COMX 111 is an acceptable substitution for the Related Instruction - Communication Requirement.

*Indicates prerequisite or corequiste required. Check course description.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or an advisor.

Student Support Center Advisor	Faculty Advisor	Program Advisor
Will Richards	Effat Rady, Ph.D.	Sam Brown
OT 204	RH 110	OT 120A
(406) 756-4862	(406) 756-3375	(406) 756-4412
wrichards@fvcc.edu	erady@fvcc.edu	sbrown@fvcc.edu

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 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.

Gainful Employment

For occupational information, tuition and fees, and other gainful employment disclosures, visit our website at www.fvcc.edu/gainfulemployment.html.

Welding and Inspection Technology, AAS

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, AWS welding standards, OXYFUEL, SMAW, GMAW, GTAW, and FCAW processes, structural, pipe and plate welding, nondestructive testing and inspection, 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

☐ EWLD 110 - Introduction to Nondestructive Testing Credit(s): 3
☐ M 114 - Extended Technical Mathematics Credit(s): 3 *
☐ WLDG 100 - Introduction to Welding Fundamentals Credit(s): 3
☐ 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): 2 *

First Semester Total: 18

Spring Semester

☐ COMX 111C - Introduction to Public Speaking Credit(s): 3
OR
☐ COMX 115C - Introduction to Interpersonal Communication Credit(s): 3
☐ DDSN 135 - Solidworks Credit(s): 3
☐ ECP 104 - Workplace Safety Credit(s): 1
☐ EWLD 111 - Liquid Penetrant and Magnetic Particle Testing Credit(s): 3 *
☐ WLDG 122 - Welding Theory III Practical Credit(s): 4 *
☐ WLDG 185 - Welding Qualification Test Preparation Credit(s): 2 *

Second Semester Total: 16

Second Year - Fall Semester

☐ BMGT 205C - Professional Business Communication Credit(s): 3 *
OR
☐ WRIT 101W - College Writing I Credit(s): 3 *
☐ EWLD 113 - Ultrasonic Testing I Credit(s): 3 *
☐ EWLD 115 - Eddy Current Testing Credit(s): 3 *
☐ EWLD 121 - Radiographic Testing I Credit(s): 2
☐ ID 115 - Workforce Preparation for Occupational Trades Credit(s): 1
☐ WLDG 119 - Welding Certification II Credit(s): 2 *
☐ WLDG 210 - Pipe Welding Credit(s): 4 *

First Semester Total: 18

Spring Semester

☐ EWLD 114 - Ultrasonic Testing II Credit(s): 3 *
☐ EWLD 122 - Radiographic Testing II Credit(s): 3 *
☐ EWLD 125 - AWS D1.1 Code Book Credit(s): 2 *
☐ WLDG 136 - GMAW/GTAW Welding and Certification Credit(s): 4 *
☐ WLDG 280 - Weld Testing Certification Credit(s): 4 *

Second Semester Total: 16

Total Credits: 68

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

Optional Course Offering:

☐ MCH 122 - Introduction to CAM Credit(s): 3

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.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or the Program Advisor.

Student Support Center Advisor	**Program Advisor**
Will Richards	Mort Hill
OT 204	OT 107
(406) 756-4862	(406) 756-3996
wrichards@fvcc.edu	rhill@fvcc.edu

Wildlife Biology Transfer

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.

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 [1]
- ☐ 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 [2]
  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

1 BIOB 160 is required for the major but BIOB 170/BIOB 171 are required for the minor, so students could take both to provide for flexibility at UM.
2 Not required for the Aquatics option.

Advising Information:

For more information about this program, contact the FVCC Student Support Center or a Faculty Advisor.

Student Support Center Advisor	Faculty Advisor	Faculty Advisor
Russ Lamson	Christina Relyea, Ph.D.	Ruth Wrightsman, Ph.D.
LRC 129	BSS 103	RH 132
(406) 756-3885	(406) 756-3946	(406) 756-3878
rlamson@fvcc.edu	crelyea@fvcc.edu	rwrightsman@fvcc.edu

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 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

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. This course may be repeated for a total of two credits. 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. This course may be repeated for a total of two credits. 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. This course may be repeated for a total of two credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

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. This course may be repeated for a total of two credits. 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. This course may be repeated for a total of two credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

ACT 156 - Beginning Aikido
Formerly: ACT 191 Aikido
Credit(s): 1
This is an introductory course in the traditional Japanese martial art of Aikido. By using basic techniques of centering, grounding, and balance (in mind and body), one learns that the non-violent approach to conflict is the safest and most effective approach. The principles of Aikido are transferable to personal and professional effectiveness for daily life. In addition, the physical training in Aikido naturally leads to improved general health, flexibility, core strength, and awareness. This course may be repeated for a total of two credits. 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). This course may be repeated for a total of two credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

ACT 171 - Physical Fitness I
Credit(s): 1
This course combines physical fitness, personal development, and goal-setting into a fitness system. Students support each other while learning non-contact boxing punches, punch combinations and moves. It incorporates strengthening exercises, aerobic activities and HIIT (high intensity interval training). The course emphasizes positivity and support for individuals to achieve their fitness goals. 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)

ACT 200 - Core Align
Formerly: ACT 191 Core Strengthening
Credit(s): 1
This course combines modalities to improve students' core strength and overall fitness level. This course may be repeated for a total of two credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

ACT 230 - Intermediate Yoga
Credit(s): 1
Prerequisite(s): ACT 150 or instructor's consent.
This course explores the principles, philosophy, history, and practices of yoga. Students will learn how to use yoga as a transformative tool by applying yoga principles to life experiences. Topics include the origins of different practices, principles of alignment and energetic actions, and asana poses used to facilitate the process of self-reflection. This course may be repeated for a total of two credits. Students receiving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

ACT 233 - Zumba

Formerly: ACT 191 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. This course may be repeated for a total of four credits. Students recieving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (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) and 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. This course may be repeated for a total of two credits. 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). This course may be repeated for a total of two credits. 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. This course may be repeated for a total of two credits. 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. This course may be repeated for a total of two credits. 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, Online)

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 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, Online)

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, Online)

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, Online)

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, Online)

ACTG 210 - Cost and Advanced Accounting
Credit(s): 4
Prerequisite(s): ACTG 202.
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)

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): completion of 30 semester credits with a grade point average of 2.0 or better and submission of an internship application.
This course offers a supervised, structured learning experience at an approved business/organization. Students experience the selection process, receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students apply theoretical classroom concepts to real-world workplace issues. Typically, a student completes 45 hours on-site per one lecture credit. Additionally, students participate in activities and class time beyond the hours spent at the job site. (All Semesters, Online)

ACTG 299 - Capstone
Credit(s): 3
Prerequisite(s): completion of 30 or more semester credits of the Accounting Technology, AAS program.
This course integrates the various functional areas of business to help the student develop a unified understanding of business planning, strategy, and application. The course transfers theoretical class work to the practical applications of the business world. (Spring Semester)

Agricultural Sciences (AGSC)

AGSC 200 - Soil Nutrient Management
Credit(s): 2
Prerequisite(s): ENSC 245.
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. (Fall Semester)

AGSC 202 - Practical Farm Production and Equipment: Fall

Credit(s): 4
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 - Practical Farm Production and Equipment: Spring

Credit(s): 4
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

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)

AGSC 241 - Field Crop Production

Credit(s): 3
Prerequisite(s): BIOB 110.
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 290 - Undergraduate Research

Credit(s): 1
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 ten credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

AGSC 298 - Internship: Agricultural Enterprise

Credit(s): 3
Prerequisite(s): completion of 15 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 experience the selection process, receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students apply theoretical classroom concepts to real world workplace issues. Students will participate in activities and class time beyond the hours spent at the job site. Typically, a student completes 45 site hours per credit earned. (All Semesters)

AGSC 298 - Internship: Campus Farm

Credit(s): 3
This course offers a supervised, structured learning experience at an approved business/organization. Students experience the selection process, receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students apply theoretical classroom concepts to real-world workplace issues. Typically, a student completes 45 hours on-site per one lecture credit. Additionally, students participate in activities and class time beyond the hours spent at the job site. (All Semesters)

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
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
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)

AH 260 - Practice and Information Management and Redesign

Credit(s): 3

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 101 - Introduction to Medical Assisting

Credit(s): 2

This course provides an introduction to the medical assisting profession. The course will emphasize the history of the profession, the scope of practice of a medical assistant, terminology as it applies to medical assisting, the concept of "meaningful use" with EHR, and engaging in interpersonal interaction with patients in a medical office. Students will also be introduced to the importance of obtaining national certification and joining both the national and state medical assistant organizations. (Fall Semester)

AHMA 201 - Medical Assisting Clinical Procedures I

Credit(s): 4

Prerequisite(s): a grade of "C-" or better in AHMS 144 and BIOH 104.

This course is designed for students to begin developing a basic knowledge of the medical assistant skills required for completing the Medical Assistant AAS degree. Students learn 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 104.

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): Fall Semester: Medical Assistant Program Director's consent. All other semesters: application process and instructor'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. This course is limited to Medical Assisting students only during fall semester; all other students may enroll all other semesters. (All Semesters)

AHMA 230 - Advanced Medical Office Procedures
Credit(s): 4
Prerequisite(s): AHMS 220.
An advanced course intended to train Medical Assisting students in the administrative procedures currently used in medical offices including, but not limited to, coding, processing of insurance claims, and EHR. Students will use current technology to learn the advanced administrative skills required of a Medical Assistant. (Fall Semester)

AHMA 280 - Medical Assisting Exam Preparation
Credit(s): 1
A course intended to prepare Medical Assistant students and/or currently practicing Medical Assistants to pass a nationally-administered certification exam to become a Certified Medical Assistant or a Registered Medical Assistant. Students must apply for and have fulfilled the individual requirements of each examination before being allowed to sit for the exam. (Spring 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 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
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. (Online 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)

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 156 - Medical Billing Fundamentals
Credit(s): 3
The most common commercial, managed care and federal health insurance plans in the U.S. will be discussed. Billing processes and procedures as well as legal, regulatory, and ethical issues in health insurance will also be covered. (Fall Semester)

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 104, BIOL 170, BMGT 205, 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): M 120.
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)

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 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: Medical Laboratory Technology (AHMT)

AHMT 101 - Introduction to Medical Laboratory Technology

Credit(s): 2
This course is intended for students interested in the profession of Medical Laboratory Technology. It will introduce students to descriptions of different departments, laboratory equipment, safety, ethics, and medical-legal aspects of the clinical laboratory. Students will also learn basic laboratory skills such as use of the microscope, capillary puncture, pipetting and preparing dilutions. (Spring Semester)

AHMT 201 - Hematology

Credit(s): 4
Prerequisite(s): admission to the Medical Laboratory Technology program.
Corequisite(s): AHMT 205, AHMT 210, AHMT 215, AHMT 295 Clinical I: Medical Laboratory Clinical.
This course presents the origin of the various types of blood cells with emphasis on the red and white cells. Students will learn about human hematological disorders and classify these based on clinical laboratory findings. This course also provides an overview of the coagulation process, disorders, and laboratory evaluations associated with the disorders. Laboratory experiences will emphasize the morphology and identification of common human blood cells and various procedures used in the hematology and hemostasis departments. (Fall Semester)

AHMT 205 - Urinalysis and Body Fluids

Credit(s): 3
Prerequisite(s): admission to the Medical Laboratory Technology program.
Corequisite(s): AHMT 201, AHMT 210, AHMT 215, AHMT 295 Clinical I: Medical Laboratory Clinical.
This course introduces various properties and constituents or urine and body fluid other than blood. It emphasizes the physical, chemical, and microscopic examination of urine and body fluids, such as cerebrospinal fluid, serous and synovial fluids, semen, and feces. Students will interpret the results and correlate these clinical values to health and disease states. (Fall Semester)

AHMT 210 - Immunology and Serology
Credit(s): 3
Prerequisite(s): admission to the Medical Laboratory Technology program.
Corequisite(s): AHMT 201, AHMT 205, AHMT 215, AHMT 295 Clinical I: Medical Laboratory Clinical.
This course introduces the basic principles of antigen and antibody reactions. It compares and contrasts the different immunological procedures and describes the mechanisms that protect the body from disease and infection. Students will study the principles of serological procedures used in the identification of plasma proteins and the diagnosis of blood borne diseases. (Fall Semester)

AHMT 215 - Coagulation
Credit(s): 2
Prerequisite(s): admission to the Medical Laboratory Technology program.
Corequisite(s): AHMT 201, AHMT 205, AHMT 210, AHMT 295 Clinical I: Medical Laboratory Clinical.
The course concentrates on blood coagulation with emphases on the theory, procedures, and practical applications. Laboratory activities will include both manual and semi-automated methods of assessing blood clotting. (Fall Semester)

AHMT 230 - Immunohematology
Credit(s): 5
Prerequisite(s): AHMT 201, AHMT 205, AHMT 210, AHMT 215, AHMT 295 Clinical I: Medical Laboratory Clinical.
Corequisite(s): AHMT 235, AHMT 295 Clinical II: Medical Laboratory Clinical.
The course emphasizes the study of blood group antigens and antibodies of the ABO, Rh, and other blood group systems. Topics include donor screening, pre-transfusion testing procedures, detection of antigen/antibody reactions, which may affect transfusion, erythroblastosis fetalis, and neonatal and obstetrical transfusion practice. Particular emphasis is also placed on serological and transfusion service procedure used in the laboratory, including the processing and storing of the various blood components for transfusion. (Spring Semester)

AHMT 235 - Clinical Microbiology
Credit(s): 5
Prerequisite(s): AHMT 201, AHMT 205, AHMT 210, AHMT 215, AHMT 295 Clinical I: Medical Laboratory Clinical, BIOM 250.
Corequisite(s): AHMT 230, AHMT 295 Clinical II: Medical Laboratory Clinical.
This course connects the morphology and behavior of microorganisms to clinically significant situations. It includes the study and laboratory applications of antibiotic susceptibility methods and molecular techniques used in clinical microbiology. It also includes the pre-analytical phase of specimen collection and preparation and causative agents of various pathophysiological states. (Spring Semester)

AHMT 240 - Clinical Chemistry
Credit(s): 5
Prerequisite(s): AHMT 201, AHMT 205, AHMT 210, AHMT 215, AHMT 230, AHMT 235, AHMT 295 Clinical I: Medical Laboratory Clinical, AHMT 295 Clinical II: Medical Laboratory Clinical.
Corequisite(s): AHMT 295 Clinical III: Medical Laboratory Clinical.
This course includes the theoretical and fundamental instrumentation methodologies, including practical concepts associated with testing procedures used in the chemistry department. These include important aspects of acid-base balance, electrolytes, carbohydrates, proteins, lipids, metabolites, hormones, and toxins as they relate to laboratory analysis. Emphasis is placed on major organ functions and the appropriate assays, analysis of various body fluids, and laboratory findings to indicate disease processes. Included are applications of general laboratory principles, laboratory math, quality control, and variables affecting laboratory results. (Summer Semester)

AHMT 295 - Clinical I: Medical Laboratory Clinical
Credit(s): 3
Prerequisite(s): admission to the Medical Laboratory Technology program.
Corequisite(s): AHMT 201, AHMT 205, AHMT 210, AHMT 215.
This course allows students to apply information and skills learned in AHMT 201, AHMT 205, AHMT 210, and AHMT 215 in a clinical setting in order to develop professionalism and proficiency. (Fall Semester)

AHMT 295 - Clinical II: Medical Laboratory Clinical
Credit(s): 6
Prerequisite(s): AHMT 201, AHMT 205, AHMT 210, AHMT 215, AHMT 295 Clinical I: Medical Laboratory Clinical.
Corequisite(s): AHMT 230, AHMT 235.
This course is a health-related, work-based learning experience allowing students to apply laboratory skills in both on-site and off-site environments. Students will have direct supervision by clinical professionals. Experiences will include immunohematology (Blood Bank) and clinical microbiology. (Spring Semester)

AHMT 295 - Clinical III: Medical Laboratory Clinical
Credit(s): 4
Prerequisite(s): AHMT 201, AHMT 205, AHMT 210, AHMT 215, AHMT 230, AHMT 235, AHMT 295 Clinical I: Medical Laboratory Clinical, AHMT 295 Clinical II: Medical Laboratory Clinical.
Corequisite(s): AHMT 240.
This course is a health-related, work-based learning experience allowing students to apply specialized occupational theory, skills, and concepts especially in the area of Urinalysis/Body fluids, Hematology, and Clinical Chemistry. (Summer Semester)

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)

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)

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
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, emphasizing 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, and 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 211.
Corequisite(s): AHST 201, BIOM 250.
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. It also provides an introduction to the physical organization of the surgical suite. (Spring Semester)

AHST 201 - Surgical Procedures I
Credit(s): 4
Prerequisite(s): AHST 101, BIOH 211.
Corequisite(s): AHST 116, BIOM 250.
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, 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, AHST 216.
Corequisite(s): AHST 207.
Students will be scrubbing in a hospital operating room. This clinical will prepare students to perform in the role of first scrub. 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)

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, 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
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
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
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
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
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
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 150 - Customer Service Strategies
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
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
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
Credit(s): 3
Prerequisite(s): AMGT 113, CAPP 154 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
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 100N - 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. (Spring Semester)

ANSC 102 - Small Farm Animal Husbandry
Credit(s): 3
This hands-on course explores the raising of livestock typical of small acreages. Topics include pasture management, nutrition, health assessment and wellness, reproduction, and safe handling of animals. The primary focus will be on cattle, poultry, horses, goats, and honeybees. (Spring 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)

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 220 - Culture and Society

Credit(s): 3

Prerequisite(s): ANTY 101 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)

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 227.

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): 2

Corequisite(s): ARTH 225, ARTH 227.

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 225, 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)

Art: Jewelry (ARTJ)

ARTJ 210F - Jewelry and Metalsmithing I

Credit(s): 3

This course is an introduction to the tools, techniques, and materials of the professional jeweler/metalsmith with emphasis on the design and production of jewelry objects. (Fall Semester)

ARTJ 211F - Jewelry and Metalsmithing II

Credit(s): 3

Prerequisite(s): ARTJ 210.

A continuation of ARTJ 210, this course provides further introduction of the tools, techniques, and materials of the professional jeweler/metalsmith. Emphasizes working more 3-dimensionally with greater complexity. (Spring Semesters)

ARTJ 212 - Jewelry and Metalsmithing III

Credit(s): 3

Prerequisite(s): ARTJ 211.

This course is an in-depth investigation into the tools, techniques, and materials of the professional jeweler. Emphasis will be on the mechanics, ergonomics, and engineering of complex jewelry projects. (Fall Semester)

ARTJ 213 - Jewelry and Metalsmithing IV
Credit(s): 3
Prerequisite(s): ARTJ 212.
A continuation of ARTJ 212, this course provides a further in-depth investigation into the tools, techniques, and materials of the professional jeweler/metalsmith. Emphasis will be on business and production methods of the independent studio artist. (Spring Semester)

ARTJ 220 - Forging and Smithing I
Credit(s): 3
Corequisite(s): ARTJ 210.
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. (Spring 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 250 - Wax Modeling and Casting I
Credit(s): 3
This course is an introduction to casting tools, techniques, and materials of the professional jeweler/metalsmith. Emphasis will be on the design and production of custom pieces. (Fall Semester)

ARTJ 251 - Wax Modeling and Casting II
Credit(s): 3
Prerequisite(s): ARTJ 250.
A continuation of ARTJ 250, this course provides an in-depth investigation into casting tools, techniques and materials of the professional jeweler/metalsmith. Emphasis will be on design and production of multiples. (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. (Spring Semester)

ARTJ 270 - Surface Embellishments I
Credit(s): 3
Prerequisite(s): ARTJ 210.
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 280 - Jewelry Repair I
Credit(s): 3
Prerequisite(s): ARTJ 210, ARTJ 211.
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 draftsperson 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 106.

This course is a continuation of ARTZ 106, 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)

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 105.

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 105.

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 221.

This course is a continuation of ARTZ 221 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)

ARTZ 225 - Watercolor Studio: Transparent
Credit(s): 3
Prerequisite(s): ARTZ 224 or instructor's consent.
An in-depth continuation of ARTZ 224, 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 231 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: 3D Printing
Formerly: ARTZ 252 Sculpture Studio: CNC Fabrication
Credit(s): 3
This course is a lecture/lab that focuses on the use of 3D printing systems and their potential in producing elements of sculptural works. Students will learn how to design, lay out and produce three dimensional works and explore the possibilities of using CAD software as viable terrain for creative thought. Students will be encouraged to incorporate mixed media into their projects and resolve their pieces as finished works of art. 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 105.
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)

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)

Aviation Flight Training (AVFT)

AVFT 135 - UAS for Commercial Operations

Credit(s): 2
As of August 2016, operating an unmanned aerial system (UAS) for any commercial or business purpose must obtain an FAA Remote Pilot Certification. This highly focused course prepares you for the test to receive this certification and be vetted by TSA to legally operate a UAS for non-hobby activities. Through a combination of instructor-led discussion, flight planning techniques and hands-on training, participants will gain proficiency in UAS operations under normal and abnormal conditions. (Fall Semester)

Biochemistry (BCH)

BCH 280N - Biochemistry

Credit(s): 3
Prerequisite(s): a grade of "C" or better in CHMY 221.
Corequisite(s): CHMY 223.
This course involves the study of cell organization; carbohydrate and lipid structure and function; protein and nucleic acid structure and function; mechanisms of enzyme function and inhibition; enzyme kinetics; energy and its relationship to biochemical processes; major metabolic pathways for carbohydrates, lipids, and amino acids; DNA replication, transcription, and translation; and regulation of gene function. (Spring Semester)

BCH 281L - Biochemistry Lab

Credit(s): 2
Prerequisite(s): a grade of "C" or better in CHMY 221.
Corequisite(s): BCH 280.
This laboratory course is designed to be taken concurrently with BCH 280 and is a project-based course that models biochemistry research. Course involves the following: 1. Purification of enzyme from natural sources utilizing high-speed centrifugation, IEX, and affinity chromatography. 2. Characterization of enzyme by gel electrophoresis, Bradford assay, and specific substrate assay. 3. Analysis of enzyme function by kinetic study. (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 201.
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 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 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 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 experience the selection process, receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students apply theoretical classroom concepts to real-world workplace issues. Typically, a student completes 45 hours on-site per one lecture credit. Additionally, students participate in activities and class time beyond the hours spent at the job site. (All Semesters)

BGEN 299 - Capstone

Credit(s): 3
Prerequisite(s): completion of 30 or more semester credits of the Business Administration AAS or Small Business Management AAS programs.
This course integrates the various functional areas of business to help the student develop a unified understanding of business planning, strategy, and application. The course transfers theoretical class work to the practical applications of the business world. (Spring Semester)

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 101 or BIOB 160, 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)

BIOB 126NL - General Science: Earth and Life 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 160 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 160 or Biology Department's consent.
Corequisite(s): BIOB 170.
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 105 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(s): CHMY 141 or higher, M 162 or STAT 216, 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(s): BIOB 160 or higher, M 162 or STAT 216, 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 160 or Biology Department's consent.
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 160 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 160 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
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 ten 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 173 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
An introduction to field techniques and ecosystem analysis, this course considers the impact of human activities on the ecosystem. (Fall Semester)

BIOE 290 - Undergraduate Research

Credit(s): 1
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 ten 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 104NL - Basic Human Biology with Lab

Credit(s): 4
Prerequisite(s): placement into WRIT 101, a "C+" or better in WRIT 095~, or instructor's consent.
This course familiarizes students with the fundamental concepts in the systematic organization and functioning of the human body. Anatomical features and physiological processes of each system are studied as they contribute to the overall homeostasis of the body. Laboratory studies include anatomy (bones, muscles, brains, vessels, and heart) and physiology (membrane transport, blood, blood pressure, respiration, reflexes and the senses). (Fall and Spring Semesters)

BIOH 105L - Basic Human Biology Laboratory
Credit(s): 1
Prerequisite(s): instructor's consent.
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 101 or BIOB 160 or CHMY 105 or CHMY 121 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 201, instructor's consent.
This course is an elective lab experience for those students who are interested in further anatomical studies. 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)

BIOH 290 - Undergraduate Research
Credit(s): 1
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 ten 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 104 or BIOH 201; BIOH 211.
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
Prerequisite(s): a grade of "C" or better in BIOM 108 and admission to the Brewing Science and Brewery Operations program or instructor's consent.
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 160 or BIOH 201 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 260 is recommended.
The laboratory study of microorganisms, their characteristics and activities. (Fall and Spring Semesters)

BIOM 260N - General Microbiology
Credit(s): 3
Prerequisite(s): BIOB 160 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 260.
This course is an introduction to fundamental techniques for isolation, manipulation, and identification of microorganisms. Laboratory activities will relate to topics covered in BIOM 260. (Intermittently)

BIOM 290 - Undergraduate Research

Credit(s): 1
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 ten 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 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 217 - Tropical Flora of Costa Rica

Credit(s): 3
Prerequisite(s): instructor's consent.
This course offers an introduction to the fundamental principles of tropical botany, ecology, ethnobotany, and conservation in a tropical setting. Various habitats will be visited including montane cloud, alpine paramo, and lowland wet forests. Field orientation at each site will include the identification of significant plant species, an understanding of species interactions, and the ability to conceptualize various habitat types. Students will learn the major families and genera of tropical plants in a phylogenetic context. This course is designed to develop the field skills needed for taxonomic and floristic studies. Students should expect to participate in moderate daily hikes and an abundance of time learning outdoors. (Intermittently)

BIOO 220NL - General Botany

Credit(s): 4
This course offers a thorough overview of the fundamental principles of plant biology from evolutionary, morphological, and physiological perspectives. Emphasis will be placed on comparative morphology, anatomy, reproduction and physiology as students survey the major groups of land plants. (Fall Semester)

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 160 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
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 ten 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 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 and Spring 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)

BMGT 235 - Management

Credit(s): 3

This course is a comprehensive introduction to management theory, research and practice. It integrates classical and modern concepts of management 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)

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

This course is an introduction to the structure and function of marketing inclusive of the analysis of consumer and industrial markets. Students study the four primary elements of marketing - product, place, price and promotion, and use these to develop a comprehensive marketing plan. The material also includes consideration of ethics and social responsibility as related to the marketing function. (Fall and Spring Semesters)

Brewing Science: (BREW)

BREW 101 - Brewing Methods I

Credit(s): 5

Prerequisite(s): admission to the Brewing Science and Brewery Operations program and instructor's consent.

This course provides an overview of the brewing process and best practices within the brewery, with an emphasis on safety, sanitation, and the transformations of raw materials required for brewing - namely malt, hops, water and yeast. (Fall Semester)

BREW 102 - Brewing Methods II

Credit(s): 4

Prerequisite(s): a grade of "C" or better in BREW 101; admission to the Brewing Science and Brewery Operations program and instructor's consent.

Corequisite(s): BREW 150.

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 keg cleaning and maintenance, CIP operations, wort production, fermentation tracking, and basic yeast handling, with an emphasis on safety and sanitation. (Spring Semester)

BREW 131 - Beer Styles and Sensory Evaluation I

Credit(s): 1

Prerequisite(s): a grade of "C" or better in BREW 102 and BREW 150; admission to the Brewing Science and Brewery Operations program and 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 132 - Beer Styles and Sensory Evaluation II
Credit(s): 1
Prerequisite(s): BREW 131; admission to the Brewing Science and Brewery Operations program; and instructor's consent.
This course will build on concepts learned in BREW 131. Students will identify off flavors and major styles in blind tasting panels, will be exposed to less common and obscure styles and defects in beer, while reinforcing the main flavors and flaws found in beer. Students will learn about contemporary style movements, addressing the historical roots of those styles, as well as the basics of beer pairings with food. Students should be prepared to take a Beer Steward Certification course if they choose to do so, upon the completion of the Styles and Sensory Analysis series and other related coursework. (Spring Semester)

BREW 141 - The Business of Brewing
Credit(s): 2
Prerequisite(s): admission to the Brewing Science and Brewery Operations program and instructor's consent.
This course covers the basic business practices needed for starting and managing a brewery inclusive of regulatory considerations, forms of ownership, human resources, marketing and finance. (Spring Semester)

BREW 150 - Brewhouse Processes
Credit(s): 4
Prerequisite(s): admission to the Brewing Science and Brewery Operations program and instructor's consent.
Corequisite(s): CHMY 123.
This course provides an overview of brewhouse operations as they apply to wort production. This includes the principles and practices of milling, mashing, wort separation, kettle boil, hop separation, and wort cooling. With each process, a quantitative and qualitative approach to methods of analysis will be discussed and practiced. Students will become familiar with the calculations and chemical reactions associated with the individual steps of wort production. (Spring Semester)

BREW 151 - Cellar Processes
Credit(s): 4
Prerequisite(s): a grade of "C" or better in BREW 102 and BREW 150; admission to the Brewing Science and Brewery Operations program and instructor's consent.
Corequisite(s): BREW 199.
This course provides an overview of cellar operations, including yeast pitching, fermentation, dry hopping, maturation, clarification, carbonation and stabilization. Topics include methods of secondary fermentation and aging, different filters and their operation, carbonation methods, and physical stability techniques. (Fall Semester)

BREW 152 - Beer Packaging
Credit(s): 2
Prerequisite(s): a grade of "C" or better in BREW 151; admission to the Brewing Science and Brewery Operations program and 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 199 - Capstone I: Brewing Methods III
Credit(s): 5
Prerequisite(s): a grade of "C" or better in BREW 102 and BREW 150; admission to the Brewing Science and Brewery Operations program and instructor's consent.
Corequisite(s): BREW 151.
In this third-level brewing and first-level Capstone course, students will use their knowledge of chemistry and microbiology while gaining experience in quality assurance and control. They will use skills obtained in their previous year of classroom and laboratory learning to operate the campus brewery. (Spring Semester)

BREW 222 - Environmental Sustainability in Brewing
Credit(s): 2
Prerequisite(s): a grade of "C" or better in BREW 102; admission to the Brewing Science and Brewery Operations program and 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. (Spring Semester)

BREW 298 - Internship: Professional Brewing
Credit(s): 1-2
Prerequisite(s): admission to the Brewing Science and Brewery Operations program and 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. This course may be repeated for a total of four credits. Students recieving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

BREW 299 - Capstone II: Brewing Methods IV
Credit(s): 5
Prerequisite(s): a grade of "C" or better in BREW 151 and BREW 199; admission to the Brewing Science and Brewery Operations program and 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)

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

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)

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)

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)

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 100 or 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): 4
Prerequisite(s): CAS 242 or PSYX 100 or instructor's consent.
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)

CAS 252 - Gambling and Gaming Disorders in Substance Abuse Counseling

Credit(s): 2
Prerequisite(s): CAS 242 or PSYX 100 or instructor's consent.
This course will introduce the student to gambling and gaming addictions. Content will include etiology, subtypes, stages, diagnostic criteria, theories associated with gambling and gaming addiction, and methods for assessment and treatment. Prevention and the impact on work and family relationships will also be considered. (Fall Semester)

CAS 254 - Co-occurring Disorders in Substance Abuse Counseling

Credit(s): 2
Prerequisite(s): CAS 242 or PSYX 100 or PSYX 240 or instructor's consent.
This course will examine the presence of both addiction and mental illnesses in individuals needing mental health and substance abuse treatment. Content will include an understanding of the most common co-occurring disorders, as well as assessment and treatment planning. (Fall Semester)

Chemistry (CHMY)

CHMY 105NL - Explorations in Chemistry

Credit(s): 4
Prerequisite(s): appropriate placement test score; or a grade of "C" or better in M 065~ within the past two years; 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 score on the chemistry placement exam; or a grade of "B-" or better in CHMY 105 within the past two years; 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, and nuclear chemistry. Laboratory included. (All Semesters)

CHMY 123NL - Introduction to Organic Biochemistry

Credit(s): 4
Prerequisite(s): appropropriate score on the chemistry placement exam, or a grade of "C" or better in CHMY 121 or CHMY 141 within the past two years, or Chemistry Department consent.
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 score on the chemistry placement exam; or a grade of "C" or better in CHMY 121 within the past two years; 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 Semester)

CHMY 143NL - College Chemistry II

Credit(s): 5

Prerequisite(s): a grade of "C" or better in CHMY 141.

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. (Spring Semester)

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): 3

Prerequisite(s): admission to the Brewing Science and Brewery Operations program and a grade of "C" or better in CHMY 123 or Chemistry Department consent.

This course examines applications of chemistry to all steps of beer production, including malting, mashing, wort boiling, fermentation, and post-fermentation conditioning. Water quality, pH, enzymes, temperature, pressure, and properties of gases and liquids as applied to beer production processes and beer quality will be examined. Course includes laboratory covering monitoring and analysis techniques of the beer production process. (Fall Semester)

CHMY 221NL - Organic Chemistry I

Credit(s): 5

Prerequisite(s): a grade of "C" or better in CHMY 143.

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 221.

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~ or M 094~; 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 280.

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

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 ten 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)

CJLE 200 - Reserve Officer Training

Credit(s): 5

Prerequisite(s): instructor's consent.

This course covers 90 hours of instruction, approximately 60 hours lecture and 30 hours lab. Topics covered include police ethics and professionalism, criminal law, evidence and laws of arrest, communications, and report writing. Portions of the course will be conducted through practical applications. These include police patrol, defensive tactics and crowd control tactics, and firearms training. The course is not a substitute for the Montana Police Academy, but will give prospective reserve officers a minimum amount of instruction necessary to function as a reserve officer. The course covers areas of instruction mandated by requirements outlined in MCA 7-32-14: Qualifications for Appointment as a Reserve Officer. Actual appointment as a reserve officer is at the discretion of individual agencies. (Intermittently)

CJLE 210 - Comprehensive Investigative Interviewing
Credit(s): 3
Prerequisite(s): instructor's consent or Criminal Justice majors.
Students will be introduced to techniques that will increase their ability to conduct efficient and productive interviews of witnesses, victims, and suspects. The course will cover techniques used during contact stops, calls for service and investigative interviews. Proper use of questioning, interview strategies and active listening techniques will also be discussed. (Fall 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)

CJUS 171 - 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 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 227 - Introduction to Policing
Credit(s): 3
This course examines the police as a component of the criminal justice system, providing an overview of law enforcement agencies at the local, state, and federal levels, as well as an examination of their history and investigative responsibilities. Current issues and trends in law enforcement will be examined. (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 171.
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 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)

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 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)

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)

CRWR 212F - Introduction Nonfiction Workshop
Credit(s): 3
Study the art of nonfiction through reading and responding to contemporary nonfiction and the writing of original nonfiction works. Focus is on creative expression, writing technique and nonfiction forms. Students begin with writing exercises and brief essays, advancing to longer forms as the semester progresses. (Spring Semester)

Computer Science (CS)

CS 140 - Introduction to Information and Computer Science
Credit(s): 3
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. (Online only course.) (All Semesters)

Computer Science/Programming (CSCI)

CSCI 100 - Introduction to Programming
Credit(s): 3
Prerequisite(s): basic keyboarding skills (30wpm) are recommended.
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
Prerequisite(s): basic keyboarding skills (30wpm) are recommended.
This is a foundation course in computer science using the high-level, object-oriented concepts in programming using 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.
This course covers computer programming in C++. Topics covered are data types, arrays, basic programming constructs, iteration, decision statements, sequences, methods, exception handling, pointers, 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 122 - Game Design Theory
Credit(s): 3
Prerequisite(s): basic programming skills recommended, but not required.
This course provides students with a foundation of the game development process including important historical elements, content creation strategies, production techniques, and future game design. The course covers game development history, platforms, goals and genres, player elements, story and character development, gameplay, levels, interface, audio, development team roles, game development process, and marketing and maintenance. (Spring Semester)

CSCI 132 - Basic Data Structures and Algorithms
Credit(s): 4
Prerequisite(s): CSCI 111.
An examination of advanced Java and basic data structures and their application in problem solving. Data structures include stacks, queues and lists. An introduction to algorithms employing the data structures to solve various problems including searching and sorting, and recursion. Understanding and using Java class libraries. The laboratory uses Java. Introduces Big-O Notation. (Fall Semester)

CSCI 206 - .NET Applications
This course will be offered beginning Fall Semester 2018.
Credit(s): 4
Prerequisite(s): CSCI 100 or CSCI 111.
This course covers advanced desktop and web application features of the .NET framework. Students will learn Exception Handling, Collections, Linq, Generics, Multithreading, .NET ADO.NET, ADO.NET Entity Framework, ASP.NET Web Forms and MVC, and Object Oriented Programming. Students will use C# language and Microsoft SQL Server for all projects. (Fall Semester)

CSCI 208 - Game Programming I

This course will be offered beginning Fall Semester 2018.
Credit(s): 4
Prerequisite(s): CSCI 111.
This is an introductory course in game programing. The course introduces physics engines, sound engines, graphic engines, creating and editing primitives, textures and meshes, lighting concepts, properties and techniques, and creating terrain and other related topics through the use of the Unreal Gaming Engine or other production platform. (Fall Semester)

CSCI 209 - Game Programming II

This course will be offered beginning in Spring 2019.
Credit(s): 4
Prerequisite(s): CSCI 208.
This course builds on skills learned in Game Programming I and covers advanced material construction, working with volumes, applying physics to objects, understanding particle systems, creating user interfaces, introduction to sound, introduction to animation, and creating cinematic sequences. The course will use the Unreal Gaming Engine or another production platform. (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 220 - Virtual/Augmented Reality

This course will be offered beginning Spring Semester 2019.
Credit(s): 4
Prerequisite(s): CSCI 111.
This is an introductory class in virtual and augmented reality. The class will examine the basic theories and concepts of virtual and augmented reality, physiological and ergonomics aspects of perception and motion, hardware, interaction, modeling, authoring, and programming. The class will involve projects which may include Google Cardboard, the Unreal Game Platform or other vr/ar platforms and hardware. (Spring Semester)

CSCI 232 - Datastructures and Algorithms

Credit(s): 3
Prerequisite(s): CSCI 111.
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)

CSCI 238 - Standards-based Mobile Applications

This course will be offered beginning Fall Semester 2018.
Credit(s): 4
Prerequisite(s): CSCI 111.
This is an introductory course in developing mobile applications utilizing industry standard languages, tools, and frameworks. Applications will be created using standards-based HTML 5, Cascading Style Sheets, and JavaScript along with frameworks to assist in the deployment to different mobile platforms. Frameworks such as PhoneGap, Cordova or other suitable platforms will be utilized to gain access to platform devices and sensors. (Fall Semester)

CSCI 240 - Databases and SQL

Credit(s): 3
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 135 - Basic Rigging

Credit(s): 1
This course introduces techniques and safety associated with the use of rope, chain, hoists, scaffolds, and ladders. It also includes an introduction to industrial rigging, including slings of various types, hoists and cranes, and related safe operating practices. (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. (Intermittently)

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)

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
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. (Spring Semester)

CULA 152 - Chef's Table
Credit(s): 1
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. (Spring Semester)

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 "SA" or "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. Principals 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 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
This is a systems-oriented class designed to introduce students to the concepts, techniques, and applications of PC based computer aided drafting. The class 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): 3
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. The course also includes an introduction to 3D printing.
Online Option: Students opting to take the lecture portion of this course online should register for DDSN 136 Solidworks Lecture and DDSN 138 Solidworks Lab . Together, these courses are equivalent to DDSN 135. (Spring Semester)

DDSN 136 - Solidworks Lecture

Credit(s): 1
Corequisite(s): DDSN 138.
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**.** (Spring Semester)

DDSN 138 - Solidworks Lab

Credit(s): 2
Corequisite(s): DDSN 136.
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**.** (Spring 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)

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)

ECNS 290 - Undergraduate Research

Credit(s): 1

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 four credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

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. 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 within a workplace will also be studied. This course also covers the OSHA 10-hour training for general industry applications. (Fall and Spring Semesters)

ECP 120 - Emergency Medical Responder

Credit(s): 3

EMR is considered the desired level of medical training by many first responder agencies. The course focuses on skill development in the primary responsibilities of the Emergency Medical Responder, who bring emergency medical care to victims of emergencies and to stabilize their condition prior to transport to an appropriate facility. This course is a combination of classroom work and skills lab. Upon successful completion of the course, students are eligible to sit for the National Registry of Emergency Medical Technicians (NREMT) certification examinations. All aspects of authorization/certification are the responsibility of the student. (Intermittently)

ECP 130 - Emergency Medical Technician

Credit(s): 6

EMT is considered the desired level of medical training by many EMS transport agencies. 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 of Emergency Medical Technicians (NREMT) certification examinations. (Fall and Spring Semesters, Summer Semester as needed)

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)

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. (Fall 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: Clinical III, 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)

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): 4

This course includes the development of child advocacy skills through awareness of the child's role in the family and society. Students will increase their understanding of diverse family structures 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.

Corequisite(s): EDEC 231.

This course focuses on developing skills in using positive guidance techniques such as I messages, reflecting feelings, natural and logical consequences, providing choices, conflict resolution, developing positive behavioral interventions, self-concept development and enhancement, as well as children's pro-social skills. (Fall Semester)

EDEC 231 - Positive Child Guidance Lab

Credit(s): 1

Corequisite(s): EDEC 230.

This course emphasizes practical application of guidance strategies for promoting pro-social behaviors with individuals and groups of children through direct participation with children in a supervised lab setting. (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, 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)

Education: 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)

Education (EDU)

EDU 101 - Teaching and Learning

Credit(s): 3
A critical analysis of public education and the role of classroom teachers in today's public schools. This course examines how public schools developed and changed over the last 100 years and how teachers' roles have evolved accordingly. Current challenges facing teachers, societal expectations of teachers and public schools, as well as the expectations of teacher candidates and teachers are discussed. (Fall and Spring Semesters)

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 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)

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): 3

Corequisite(s): M 152.

This course provides a hands-on introduction to a number of different areas in Electrical and Computer Engineering, the applications of these technologies to solve real-world problems, and the potential impacts on society in general. It incorporates lectures, laboratory experiences, and programming exercises that introduce students to the fundamentals of electrical and computer engineering. Topics include Kirchhoff's and Ohm's Laws, using meters and oscilloscopes, time-varying signals in electric circuits, resistors, capacitors, series and parallel circuits, introduction to digital circuits, introduction to programming, problem solving including computer applications, technical communications, and teamwork. (Fall Semester)

EELE 201 - Circuits I for Engineering

Credit(s): 4

Prerequisite(s): EELE 101, M 172, PHSX 222.

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)

EELE 261 - Introduction to Logic Circuits

Credit(s): 4

Prerequisite(s): M 152.

This course introduces the concepts of classical digital logic design including number systems, interfacing, Boolean algebra, combinational logic design, and finite state machines. This course also covers Hardware Description Languages for the structural design and simulation of digital systems. Modern digital design of combinational logic and state machines is covered using VHDL and a logic synthesizer. This course contains a laboratory experience where students design and implement logic circuits using discrete parts and programmable logic devices. (Fall Semester)

Engineering: General (EGEN)

EGEN 102 - Introduction to Engineering Computer Applications

Credit(s): 2

Prerequisite(s): M 171.

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 111 - Engineering Communications

Credit(s): 3

This course provides an introduction to the fundamentals of communicating through engineering graphics, including hand sketching and computer aided design. Students will learn to create sketches and prepare 2-D and 3-D drawings utilizing conventional drawing equipment and methods, as well as with AutoCAD and Civil 3D software. Drawing standards, fits and tolerances, and dimensioning is included. (Spring Semester)

EGEN 201 - Engineering Mechanics: Statics

Credit(s): 4

Prerequisite(s): M 172 and PHSX 220.

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)

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)

EGEN 290 - Undergraduate Research

Credit(s): 1
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 ten credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

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.

Online Option: Students opting to take the lecture portion of this course online should register for ELCT 107 Introduction to Electricity Lecture and ELCT 108 Introduction to Electricity Lab . Together, these courses are equivalent to ELCT 100. (Fall and Summer Semesters)

ELCT 102 - Electrical Fundamentals II

Credit(s): 4
Prerequisite(s): ELCT 110.
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.
Online Option: Students opting to take the lecture portion of this course online should register for ELCT 104 Electrical Fundamentals II Lecture and ELCT 109 Electrical Fundamentals II Lab. Together, these courses are equivalent to ELCT 102. (Spring Semester)

ELCT 103 - Electrical Code Study/Codeology

Credit(s): 3
Prerequisite(s): ELCT 139.
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 Semester)

ELCT 104 - Electrical Fundamentals II Lecture

Credit(s): 3
Prerequisite(s): ELCT 110.
Corequisite(s): ELCT 109.
This course will introduce the student to alternating current and its effect on reactive and resistive components. 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 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 Kirchhoff'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 107 - Introduction to Electricity Lecture

Credit(s): 2
Corequisite(s): ELCT 108.
This is an introductory course in electrical fundamentals, including both direct current and alternating current. Series and parallel circuits will be introduced. There is also an introduction to the National Electric Code. (Fall Semester)

ELCT 108 - Introduction to Electricity Lab

Credit(s): 1
Corequisite(s): ELCT 107.
Students will learn the use of multimeters and how to test amperage, voltage, and resistance in various circuits. (Fall Semester)

ELCT 109 - Electrical Fundamentals II Lab

Credit(s): 1
Prerequisite(s): ELCT 110.
Corequisite(s): ELCT 104.
This course will introduce the student to alternating current and its effect on reactive and resistive components. 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 110 - Basic Electricity I

Credit(s): 5
Corequisite(s): ELCT 100.
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.

Online Option: Students opting to take the lecture portion of this course online should register for ELCT 112 Basic Electricity I Lecture and ELCT 113 Basic Electricity I Lab. Together, these courses are equivalent to ELCT 110. (Fall and Summer Semesters)

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.

Online Option: Students opting to take the lecture portion of this course online should register for ELCT 114 Electric Meters and Motors Lecture and ELCT 115 Electric Meters and Motors Lab. Together, these courses are equivalent to ELCT 111. (Spring Semester)

ELCT 112 - Basic Electricity I Lecture

Credit(s): 4
Corequisite(s): ELCT 107, ELCT 113.
The first three chapters of the National Electric Code are covered in some depth. In addition, Kirchhoff's and Ohm's laws, and induction and capacitance are covered. (Fall Semester)

ELCT 113 - Basic Electricity I Lab

Credit(s): 1
Prerequisite(s): ELCT 100 or instructor's consent.
Corequisite(s): ELCT 108, ELCT 112.
This course consists of building and testing electrical circuits. (Fall Semester)

ELCT 114 - Electric Meters and Motors Lecture

Credit(s): 2
Corequisite(s): ELCT 115.
This course involves lecture and practical hands-on learning using ammeters, voltmeters, watt meters, and multimeters in testing and troubleshooting electric motors, components and wiring systems. The course contains a study of single and three phase AC motors, their construction features and operating characteristics. The lecture and 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 115 - Electric Meters and Motors Lab

Credit(s): 1
Corequisite(s): ELCT 114.
This course involves lecture and practical hands-on learning using ammeters, voltmeters, watt meters, and multimeters in testing and troubleshooting electric motors, components and wiring systems. The course contains a study of single and three phase AC motors, their construction features and operating characteristics. The lecture and 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 116 - Math for Electricians

Credit(s): 2
This course presents basic mathematical topics as they relate to the electrical apprenticeship program. The topics covered are dimensional arithmetic, percents, solving single linear equations, proportions and fractional equations, basic geometry, basic right triangle and basic oblique triangle trigonometry, and sine and cosine functions. (Intermittently)

ELCT 130 - Electric Motors and Generators

Credit(s): 3
This course provides a comprehensive overview of DC and AC motor types, application, and control. Operation and construction of DC motors will include series plus shunt and compound types. AC single phase capacitor and split phase start motors plus AC three phase motors are featured. Motor construction of stators, armatures, commutators, and brushes plus motor maintenance and loading effects for optimal operation including DC compounding test is included. Basic motor control troubleshooting principles are discussed in detail, including safe and efficient use of multimeters, high voltage insulation testers, and safe voltage lockout. Students are introduced to solid state and mechanical motor control technology involving relays, silicon control relays, diodes, and solid state motor controllers. Correct safety procedures in compliance with the National Electrical Code® and NFPA 70E® will be emphasized. (Fall Semester)

ELCT 133 - Basic Wiring

Credit(s): 4
Corequisite(s): ELCT 100.
This course is a complete residential wiring class. It covers all phases of wiring, including OCPDs, branch circuits, feeders, grounding, electrical services, and transformers, as well as wiring methods and materials. The course uses the 2011 NEC codebook, plus updates, for every installation in a residence. A blueprint of a residential home is used as the means of relating the NEC to how a home is wired. (Fall Semester)

ELCT 135 - Electrical Drafting Lecture

Credit(s): 1
Prerequisite(s): ELCT 136.
The value of good blueprints and how they are applied to the job will be studied. Reading and understanding symbols and the wiring system will be emphasized. (Fall Semester)

ELCT 136 - Electrical Drafting Lab

Credit(s): 1
Corequisite(s): ELCT 135.
This course covers the practical applications associated with the wiring diagrams on a blueprint. (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.

Online Option: Students opting to take the lecture portion of this course online should register for ELCT 135 Electrical Drafting Lecture and ELCT 136 Electrical Drafting Lab. Together, these courses are equivalent to ELCT 137. (Fall Semester)

ELCT 139 - Electric Code Study - Residential

Credit(s): 3
Prerequisite(s): ELCT 133.
This course is a study of the current NEC requirements pertaining to residential wiring. Code calculations for single and multiple family dwellings are emphasized. Blueprint reading is included. Lab work covers actual wiring of all devices which are used in a residence. The course also covers commercial and industrial applications. (Spring Semester)

ELCT 204 - Electrical Planning and Estimating

Credit(s): 3
Corequisite(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)

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 208 - Advanced Current Theory Lecture

Credit(s): 4
Prerequisite(s): ELCT 102.
Corequisite(s): ELCT 209.
This course is a study of single-phase and three-phase alternating current circuits utilized in single and three-phase transformers and machines. The theory and operation of single-phase and three-phase wye and delta circuits and the relationship of voltage, current and power in these circuits is studied. The use of vector addition and subtraction or 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. (Fall Semester)

ELCT 209 - Advanced Current Theory Lab

Credit(s): 1
Prerequisite(s): ELCT 102.
Corequisite(s): ELCT 208.
The labs will emphasize the use of test equipment in single and three-phase circuits. (Fall Semester)

ELCT 210 - Advanced Current Theory

Credit(s): 5
Prerequisite(s): EELE 101 or 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.

Online Option: Students opting to take the lecture portion of this course online should register for ELCT 208 Advanced Current Theory Lecture and ELCT 209 Advanced Current Theory Lab. Together, these courses are equivalent to ELCT 210. (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.

Online Option: Students opting to take the lecture portion of this course online should register for ELCT 212 AC Measurements Lecture and ELCT 213 AC Measurements Lab. Together, these courses are equivalent to ELCT 211. (Spring Semester)

ELCT 212 - AC Measurements Lecture

Credit(s): 2
Prerequisite(s): ELCT 102.
Corequisite(s): ELCT 213.
Students will learn characteristics of single-phase and three-phase electrical circuits. Students will 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 213 - AC Measurements Lab

Credit(s): 1
Prerequisite(s): ELCT 102.
Corequisite(s): ELCT 212.
This 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 225 - Transformers

Credit(s): 2

This course presents students with the basic construction, operation, and maintenance principles of single phase and three phase transformers. Transformer construction, including core types, coil wiring ratios, tank dynamics, and cooling features involving details of magnetism, induction, and flux density will be presented. This course introduces transformer types: auto tap changer, isolation, and step up/step down, reactor, buck-boost, and current transformers; transformer operating principles featuring transformer electromagnetic coupling; transformer maintenance testing of power factor, impedance, power loss (watts loss), oil, and turns ratio. The destructive effects of harmonic distortion, improper cooling, overloading, and improper transformer connecting are highlighted along with a basic introduction to power generation and short circuit analysis. Practical information of NEMA® and ANSI® standards on insulation materials and safety will be featured. (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. (Fall 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 248 - Programmable Logic Controllers Lecture

Credit(s): 1

Corequisite(s): ELCT 249.

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. (Fall Semester)

ELCT 249 - Programmable Logic Controllers Lab

Credit(s): 3

Corequisite(s): ELCT 248.

This course is a hands on introduction to the concepts involved with programmable logic controllers (PLCs). The applications, operations, and programming of PLCs will be experienced with an emphasis on programming and ladder software development and maintenance. (Fall 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.

Online Option: Students opting to take the lecture portion of this course online should register for ELCT 248 Programmable Logic Controllers Lecture and ELCT 249 Programmable Logic Controllers Lab. Together, these courses are equivalent to ELCT 250. (Fall Semester)

ELCT 251 - Introduction to Photovoltaic Systems

Credit(s): 4

Prerequisite(s): ELCT 100 or instructor's consent.

This course introduces 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. This course focuses on grid-direct photovoltaic systems, but covers material crucial to understanding all types of systems. In addition, the economics and viability of photovoltaic as compared to other energy systems will be studied. (Spring Semester)

ELCT 252 - Fundamentals of Battery-Based Photovoltaic Systems

Credit(s): 4

Prerequisite(s): ELCT 110 or instructor's consent.

This is a lecture/lab course designed to build a firm foundation of basic principles and technologies of solar photovoltaic energy systems. This course focuses on battery-based photovoltaic systems, including the purpose, applications, and design criteria for different types of charge controllers, batteries, and battery-based inverters. Emphasis is placed on system design and installation, including site and resource assessment, load analysis, and cost analysis. (Spring Semester)

ELCT 255 - Journeyman Electrician's Exam Preparation

Credit(s): 1

This course will prepare students to successfully take the electrical journeyman licensing examination. There will be a review of topics that were covered in previous courses in the apprentice curriculum. Practice exams will be introduced and discussed with the purpose of assisting students in understanding how questions are worded, and how to best study for the journeyman examination. (Summer Semester)

Engineering: Mechanical (EMEC)

EMEC 103 - CAE I - Engineering Graphics Communication

Credit(s): 3
This course leads students to an understanding of engineering drawing, an essential means of communication in engineering. It includes an introduction to the basic use of both AutoCAD and SolidWorks, which are commonly used in mechanical engineering. Topics will include 2D and 3D modeling or parts, creation of simple engineering drawings, and construction of assemblies in SolidWorks. (Spring Semester)

EMEC 250 - Mechanical Engineering Materials

Credit(s): 3
Prerequisite(s): CHMY 121 or CHMY 141.
This course will introduce students to the fundamentals of materials science and engineering. It covers the chemistry and internal structure of solid materials, and the relationship of structure to material properties. Students will gain a fundamental understanding of materials science, particularly the effects of composition and structure (subatomic, atomic, micro-, and macro-structures) on the material properties (including mechanical, thermal, electrical, magnetic, optical, and deteriorative properties) of metals, ceramics, polymers and composites. Students will also develop an awareness of modern materials challenges and opportunities. (Fall 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 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)

Electronics Technology (ETEC)

ETEC 128 - Panel Wiring and Soldering Lecture

Credit(s): 1
Corequisite(s): ETEC 129.
The basics of electrical and electronics schematics and wiring diagrams will be taught in relation to wiring control panels. (Spring Semester)

ETEC 129 - Panel Wiring and Soldering Lab

Credit(s): 1
Corequisite(s): ETEC 128.
This course will teach the fundamentals of electronics and soldering and the wiring of control panels. (Spring Semester)

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.

Online Option: Students opting to take the lecture portion of this course online should register for ETEC 128 Panel Wiring and Soldering Lecture and ETEC 129 Panel Wiring and Soldering Lab. Together, these courses are equivalent to ETEC 130. (Spring Semester)

ETEC 243 - Digital Electronics Lecture

Credit(s): 3
Prerequisite(s): ELCT 110.
Corequisite(s): ETEC 244.
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. (Summer Semester)

ETEC 244 - Digital Electronics Lab

Credit(s): 1
Prerequisite(s): ELCT 110.
Corequisite(s): ETEC 243.
This course explores digital electronic circuits and devices that make up a computer system. Topics include simple logic circuits, components, integrated circuit (IC) chips, IC chip packaging, and specification sheets. Analog-to-digital and digital-to-analog interfaces are covered. (Summer 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.

Online Option: Students opting to take the lecture portion of this course online should register for ETEC 243 Digital Electronics Lecture and ETEC 244 Digital Electronics Lab. Together, these courses are equivalent to ETEC 245. (Summer Semester)

ETEC 248 - Solid State Electronics I Lecture

Credit(s): 3
Prerequisite(s): ELCT 110.
Corequisite(s): ETEC 249.
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)

ETEC 249 - Solid State Electronics I Lab

Credit(s): 1
Prerequisite(s): ELCT 110.
Corequisite(s): ETEC 248.
This course is a hands on introduction to the concepts involved with programmable logic controllers (PLCs). The applications, operations, and programming of PLCs will be experienced with an emphasis on programming and ladder software development and maintenance. (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.

Online Option: Students opting to take the lecture portion of this course online should register for ETEC 248 Solid State Electronics I Lecture and ETEC 249 Solid State Electronics I Lab. Together, these courses are equivalent to ETEC 250. (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.

Online Option: Students opting to take the lecture portion of this course online should register for ETEC 281 Advanced Electronics Lecture and ETEC 282 Advanced Electronics Lab. Together, these courses are equivalent to ETEC 280. (Spring Semester)

ETEC 281 - Advanced Electronics Lecture

Credit(s): 2
Prerequisite(s): ETEC 245, ETEC 250.
Corequisite(s): ETEC 282.
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. (Spring Semester)

ETEC 282 - Advanced Electronics Lab

Credit(s): 2
Prerequisite(s): ETEC 245, ETEC 250.
Corequisite(s): ETEC 281.
This course will involve the study of how various industrial processes are coalesced using advanced PLC techniques. It involves applications of principles in practical situations. (Spring 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.

Online Option: Students opting to take the lecture portion of this course online should register for ETEC 286 Advanced Programmable Controllers Lecture and ETEC 287 Advanced Programmable Controllers Lab. Together, these courses are equivalent to ETEC 285. (Spring Semester)

ETEC 286 - Advanced Programmable Controllers Lecture

Credit(s): 1
Prerequisite(s): ELCT 250.
Corequisite(s): ETEC 287.
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 287 - Advanced Programmable Controllers Lab

Credit(s): 3
Prerequisite(s): ELCT 250.
Corequisite(s): ETEC 286.
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. The main focus of the course is applications. (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.

Online Option: Students wishing to take the lecture portion of this course online should register for ETEC 299 Capstone: Electronics Lab and ETEC 299 Capstone: Electronics Lecture. Together, these courses are equivalent to ETEC 299 Capstone: Electronics. (Spring Semester)

ETEC 299 - Capstone: Electronics Lab

Credit(s): 2.5
Prerequisite(s): enrollment in the Electronics Technician Tier IV program.
Corequisite(s): ETEC 299 Capstone: Electronics Lecture.
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. Completion of a project is required. (Spring Semester)

ETEC 299 - Capstone: Electronics Lecture

Credit(s): .5
Prerequisite(s): enrollment in the Electronics Technician Tier IV program.
Corequisite(s): ETEC 299 Capstone: Electronics Lab.
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)

Engineering: Mechanical Engineering Technology (ETME)

ETME 215 - Manufacturing Processes

Credit(s): 3
Prerequisite(s): EMEC 250 or instructor's consent.
This course provides an overview of the concepts, theory, operation, and application of manufacturing processes with an emphasis on the production of durable goods from engineering materials. The student will apply quantitative analysis techniques to the solution of manufacturing problems, as well as gain an understanding of the appropriate processes to specify while designing products for manufacture. (Spring Semester)

Engineering: Welding (EWLD)

EWLD 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)

EWLD 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)

EWLD 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 Nondestructive Testing Personnel. (Fall and Spring Semesters)

EWLD 114 - Ultrasonic Testing II

Credit(s): 3
Prerequisite(s): EWLD 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)

EWLD 115 - Eddy Current Testing

Credit(s): 3
Corequisite(s): WLDG 111.
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)

EWLD 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)

EWLD 122 - Radiographic Testing II

Credit(s): 3
Prerequisite(s): EWLD 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)

EWLD 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)

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)

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" or "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, presuppression, 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
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): GPHY 284 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
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 ten 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 101 or instructor's consent.
This course is a study of the French language with attention to pronunciation, conversation, grammar and reading. (Intermittently)

Firearms Technology (FT)

FT 100 - Introduction to Firearms

Credit(s): 1
Prerequisite(s): acceptance into the Firearms Technologies program or instructor's consent.
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)

FT 111 - Firearms Theory I
Credit(s): 3
Prerequisite(s): acceptance into the Firearms Technologies program or instructor's consent.
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 or instructor's consent.
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 or instructor's consent.
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 or instructor's consent.
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 or instructor's consent.
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 or instructor's consent.
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 or instructor's consent.
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)

FT 200 - Introduction to Stock Inletting and Bedding
Credit(s): 3
Prerequisite(s): accepted into the Firearms Finishing program or instructor's consent.
This course will provide information related to the selection of stock blanks. Differences between semi-inlet stocks and blank stocks will be discussed along with layout of stock blanks for both structure and aesthetic appeal. The course will provide students with the knowledge to inlet a semi-inlet blank to a barreled action with the use of inletting tools and markers. Shaping as well as installation of forends and grip caps are included. Inletting and shaping of two-piece stocks will also be covered. (Fall Semester)

FT 201 - Gun Bluing
Credit(s): 3
Prerequisite(s): accepted into the Firearms Finishing program or instructor's consent.
This course presents the chemical processes and procedures used to produce a black oxide finish on firearms or any steel part, except for stainless steel, utilizing the hot caustic immersion and rust bluing processes. Metal preparation, bluing room design, equipment, chemicals, and safety factors will be covered. Polishing techniques and metal preparation utilizing primarily hand techniques will be emphasized. Student skills will be developed by applying these processes to test pieces, tools, and/or project firearms. (Fall Semester)

FT 202 - Advanced Metal Finishing
Credit(s): 3
Prerequisite(s): FT 120 or instructor's consent.
This course is a study of those chemical processes and metal preparation techniques that are applicable to gun metal finishing. Metal finishing processes including nitre bluing, zinc and/or manganese phosphate coating, color case hardening, and bake on coatings will be covered along with metal preparation using power equipment and hand techniques. Students will develop skills by preparing and applying various metal finishes to projects in a safe manner. (Fall Semester)

FT 203 - Advanced Firearms Modification

Credit(s): 3
Prerequisite(s): accepted into the Firearms Finishing program or instructor's consent.
This course is a study of advanced gunsmith practices that are required in professional gunsmithing or firearms manufacturing. Topics will include choke tubes, barrel dent removal, back boring of shotgun barrels, barrel relining, bolt action feed, stuck cartridge removal, bolt face repair and modification, custom scope bases and sights. (Spring Semester)

FT 204 - Pistolsmithing

Credit(s): 3
Prerequisite(s): accepted into the Firearms Finishing program or instructor's consent.
This course is a study of advanced gunsmith practices that are required in professional gunsmithing or firearms manufacturing. Topics will include choke tubes, barrel dent removal, back boring of shotgun barrels, barrel relining, bolt action feed, stuck cartridge removal, bolt face repair and modification, custom scope bases and sights. (Spring Semester)

FT 205 - Checkering

Credit(s): 3
Prerequisite(s): accepted into the Firearms Finishing program or instructor's consent.
This course will cover layout and hand-cutting of a standard point pattern. The emphasis will be on construction of templates with layout and checkering of flat and curved surfaces. Cradle design and adjustment to gain positive results will be covered. Layout and cutting of more advanced fleur-de-lis patterns are also covered. Also included are re-cutting of existing patterns and repair of damaged checkering. Staining and finishing of completed work are covered with an emphasis on professional results. (Spring Semester)

FT 206 - Synthetic Stocks

Credit(s): 3
Prerequisite(s): accepted into the Firearms Finishing program or instructor's consent.
This course will cover layout and hand-cutting of a standard point pattern. The emphasis will be on construction of templates with layout and checkering of flat and curved surfaces. Cradle design and adjustment to gain positive results will be covered. Layout and cutting of more advanced fleur-de-lis patterns are also covered. Also included are re-cutting of existing patterns and repair of damaged checkering. Staining and finishing of completed work are covered with an emphasis on professional results. (Spring Semester)

Global Leadership (GBLD)

GBLD 220 - Models of Leadership

Credit(s): 1
The course supports student leaders by building leadership skills, developing awareness of leadership styles and theories, and facilitating personal growth through a variety of experiences and practice. (Spring Semester)

Graphic Design (GDSN)

GDSN 130 - Typography

Credit(s): 3
Prerequisite(s): GDSN 148 or GDSN 200.
Corequisite(s): 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)

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)

GEO 290 - Undergraduate Research
Credit(s): 1
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 ten credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating this course. (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)

GPHY 150 - Introduction to Geospatial Technology and Land Information

Credit(s): 2

This course is designed to acquaint students with land information and mapping principles including an introduction to the Public Land Survey System, cadastral surveys and land records investigation. This course also serves as a combined introduction to geographic information systems (GIS), remote sensing (RS), global positioning systems (GPS), and cartography (the science and art of mapmaking). (Fall Semester)

GPHY 250 - Web GIS

Credit(s): 2

This course introduces the design, publishing, optimization of online geospatial data, and maintenance of basic geospatial web services and applications. The course includes an introduction to browser and mobile enabled interactive application. (Fall Semester)

GPHY 284 - Introduction to GIS Science and Cartography

Formerly: SRVY 233 Introduction to GIS for Natural Resource Assessment

Credit(s): 4

This course covers concepts of spatial thinking and understanding spatial relationships and interaction in the natural and built environment. Additional topics include spatial data principles, data models, relational database concepts, contemporary digital cartography, map design and composition, spatial data conversion, and introduction to spatial analysis and synthesis. (Fall Semester)

GPHY 286 - Advanced GIS

Credit(s): 4

Prerequisite(s): GPHY 284.

This course introduces students to problem-solving and decision making using spatial analysis techniques through advanced tools in both vector and raster data models. Topics include spatial data analysis, surface analysis and 3D visualization, network analysis, and modeling applications. (Spring Semester)

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 101.

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

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 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)

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)

Heavy Equipment Operator (HEO)

HEO 100 - Commercial Truck Driver

Credit(s): 4

Prerequisite(s): students must be at least 18 year of age and possess a valid Montana Driver's License.

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. This class also includes simulator and 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 with the driving skills in a working environment. (All Semesters)

HEO 101 - Commercial Driver's License (Bus)

Credit(s): 3

Prerequisite(s): students must be at least 18 year of age and possess a valid Montana Driver's License.

This course will assist students in gaining 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 and open road. (All Semesters)

HEO 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)

HEO 103 - Professional Truck Driver
Credit(s): 4
Prerequisite(s): HEO 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)

HEO 105 - Introduction to Heavy Equipment Operator
Credit(s): 8
This course will introduce students to equipment work site safety, grade stake interpretation, and soil composition and characteristics. It will also introduce students to the operation of dump trucks, skid steers, dozers, excavators, backhoes, loaders, scrapers, and motor graders to the National Center for Construction Education and Research (NCCER) standards. (Fall Semester)

HEO 110 - Heavy Equipment Operator II
Credit(s): 12
Prerequisite(s): HEO 105.
This course is a continuation of HEO 105 designed to develop student proficiencies in equipment operational safety, soil stabilization and good grade determination, and operation of equipment that is fitted with gps. Proficiency in the operation of all pieces of equipment is expected. Students will give presentations on topics in construction, excavation, or maintenance of equipment. (All Semesters)

HEO 111 - Introduction to Grader Operation
Credit(s): 5
Prerequisite(s): possess a valid Montana Driver's License.
This course will prepare a student to proficiently and safely operate a grader. The student is expected to satisfactorily complete the NCCER written and performance test for this piece of equipment. (Intermittently)

HEO 112 - Introduction to Excavator Operation
Credit(s): 5
Prerequisite(s): possess a valid Montana Driver's License.
This course will prepare a student to proficiently and safely operate an excavator. The student is expected to satisfactorily complete the NCCER written and performance test for this piece of equipment. (Intermittently)

HEO 113 - Introduction to Backhoe Operation
Credit(s): 5
Prerequisite(s): possess a valid Montana Driver's License.
This course will prepare a student to proficiently and safely operate a backhoe. The student is expected to satisfactorily complete the NCCER written and performance test for this piece of equipment. (Intermittently)

HEO 114 - Introduction to Dozer Operation
Credit(s): 5
Prerequisite(s): possess a valid Montana Driver's License.
This course will prepare a student to proficiently and safely operate a dozer. The student is expected to satisfactorily complete the NCCER written and performance test for this piece of equipment. (Intermittently)

HEO 120 - Heavy Equipment: Service and Operation
Credit(s): 4
This course introduces service and maintenance of various categories of heavy equipment. The student will learn to perform routine service and maintenance for major equipment components. In addition, the student will learn all safety aspects associated with one category of heavy equipment. For that same category, the student will learn all of the various operations. (Intermittently)

HEO 181 - Commercial Truck Driver A to Bus Transition
Credit(s): 1
Prerequisite(s): current Class A CDL license.
The Commercial Truck Driving Class A to Bus Transition will assist students in gaining a working knowledge needed to extend Class A skills to include a bus endorsement. This class also includes pre-trip, backing practice, and the driving experience necessary to pass the pre-trip, skills, and driving exam for the Montana Class passenger and school bus endorsements. The lab exercises are designed to provide students who possess the Class A license and driving skills with the additional driving skills required to successfully pass the passenger and school bus performance test. (Intermittently)

HEO 198 - Heavy Equipment Operator Internship
Credit(s): 10
Prerequisite(s): HEO 105, HEO 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)

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 Honors 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 Honors 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)

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)

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 101 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 100 or HS 250 or PSYX 100.
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 100 or PSYX 100.
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 100 or PSYX 100, 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 295 - Field Experience I

Credit(s): 3
Prerequisite(s): HS 100 or HS 250 or PSYX 100, 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 100 or HS 250 or PSYX 100, 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)

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)

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. (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)

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 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): 1-3

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. This course may be repeated one time for a maximum of three credits. Students recieving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

HVC 230 - HVAC Electrical II

Credit(s): 3

Prerequisite(s): HVC 130.

Areas of study will include basic control circuits, sequency 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)

Individual Development (ID)

ID 101 - Transition to College

Credit(s): 1
In this seminar course, students will explore academic and career opportunities within the various programs of study at FVCC. Students will reflect on their values, interests, strengths, and how these impact the formation of their goals: academic and professional. Students will also be introduced to academic success strategies and methods to ensure a more successful transition to FVCC academics. (Fall and Spring Semesters)

ID 105 - College 101: Summer Experience

Credit(s): 1
Prerequisite(s): enrollment in Running Start Summer Experience Program.
College 101: Summer Experience provides pre-collegiate students with academic success strategies for college, and resources for exploring educational and career opportunities. Students will participate in service learning and experiential activities and reflect on their values, skills, and leadership-styles. Students will create an academic and career action plan preparing them to enter college full-time. (Summer Semester)

ID 110 - Professionalism 101: From College to Career

ID 110 Career Awareness
Credit(s): 1
This course will prepare TRIO students to reach their career goals. Students will learn valuable professional skills including job and internship research, creating professional profiles, resume development, cover letter formatting, interview skills, negotiating salary and understanding benefits. Student will also reflect on their strengths and developing their skills and abilities for professional careers. The course prepares students entering the workforce directly after FVCC, as well as connects transfer students to career resources at four-year colleges and universities. (Fall and Spring Semesters)

ID 115 - Workforce Preparation for Occupational Trades

Credit(s): 1
This course prepares Occupational Trades students to enter the workforce by teaching professionalism necessary for success in their chosen industries. In the course, students create a working resume and cover letter, as well as learn interviewing and salary negotiations techniques. Topics covered include networking and communication, time management, and professional appearance. (Fall Semester)

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 101 or equivalent.
This course will broaden students' Italian language skills and deal more in-depth with Italian culture and history. (Intermittently)

ITLN 201 - Intermediate Italian I

Credit(s): 4
Prerequisite(s): ITLN 101 and ITLN 102 or instructor's consent.
This course will broaden students' Italian language skills acquired in first-year Italian by offering a thorough review of grammar supplemented by a number of readings and communicative activities. Students will deepen their knowledge of Italian language and culture as well as greatly increase their language proficiency. (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(s): ITS 212, ITS 258.
Corequisite(s): 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. (Intermitttently)

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): completion of 30 semester credits with a grade point average of 2.0 or better and submission of an internship application.
This course offers a supervised, structured learning experience at an approved business/organization. Students experience the selection process, receive training related to their field of study, enhance their academic learning, and gain exposure to the workplace. Students apply theoretical classroom concepts to real-world workplace issues. Typically, a student completes 45 hours on-site per one lecture credit. Additionally, students participate in activities and class time beyond the hours spent at the job site. (All Semesters)

Kinesiology (KIN)

KIN 201 - Basic Exercise Prescription
Credit(s): 3
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
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)

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 201 - Introduction to Literary Studies

Credit(s): 3

This writing-intensive introduction to the English major will prepare students for advanced study in literature by providing them with the foundational skills of literary analysis, literary theory, disciplinary methodologies, and close readings of literary texts. (Spring 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)

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 240 - 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 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)

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 065~ - Prealgebra

Credit(s): 3

This course is designed for those students who need to improve their prealgebra skills. Topics include signed numbers, basic factoring, basic equation solving, an introduction to polynomials, square roots, basic graphing and basic exponent rules. This course may be repeated for a total of nine credits. Students recieving financial aid or veterans' benefits should check with the Financial Aid Office before repeating this course. (All Semesters)

M 090~ - Introductory Algebra

Credit(s): 4

Prerequisite(s): appropriate placement test score, a grade of "SA" or "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 094~ - Quantitative Reasoning

Credit(s): 4

Prerequisite(s): appropriate placement test score, a grade of "SA" or "C" or better in M 065~, or Math Department consent.

This course is designed for students as the alternative to the traditional algebraic math sequence and to prepare them for college-level math courses emphasizing quantitative methods. Emphasis will be placed on using data and appropriate mathematical models to make decisions, while developing logical reasoning and critical thinking skills. Topics include proportional reasoning, utilizing various graphical representations, linear equations (including systems of linear equations), and basic probability and statistics. (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 pre-calculus. This course concentrates on quadratic, exponential, rational and logarithmic expressions and equations. This course also covers the graphs of functions, inequalities, and solving linear systems of equations. (All Semesters)

M 105M - Contemporary Mathematics

Formerly: M 145 Mathematics for the Liberal Arts

Credit(s): 3

Prerequisite(s): appropriate placement test score, a grade of "C" or better in M 094~, or Math Department consent.

This course is an introduction to mathematical ideas and their impact on society. The course is designed to give students the skills required to understand and interpret quantitative information that they encounter, and to make numerically based decisions in their lives. Several math topics will be explored, including basic probability and statistics. (All Semesters)

M 111 - Technical Mathematics

Credit(s): 3

Prerequisite(s): appropriate placement test score, a grade of "SA" or "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. (Intermittently)

M 114 - Extended Technical Mathematics

Credit(s): 3

Prerequisite(s): appropriate placement test score, a grade of "SA" or "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 094~, 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)

M 120 - Mathematics with Health Care Applications

Credit(s): 3

Prerequisite(s): appropriate placement test score, a grade of "SA" or "C" or better in M 065~, or Math Department 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, measurements used in health care fields, dimensional analysis, graphs and basic statistics, and cost/selling price and mark-up. (All Semesters)

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 094~, 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 Semester)

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 094~, 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. (Spring Semester)

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 152, 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 152, 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 152 and M 153, or Math Department consent.

This is the first of three standard courses in calculus, the others are M 172 and M 273. 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 171, 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 171 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. (Spring Semester)

M 225M - Introduction to Discrete Mathematics
Credit(s): 4
Prerequisite(s): a grade of "C" or better in M 171 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 132, 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 172 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 273 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
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 ten credits. Students receiving financial aid or veteran benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

Media Arts (MART)

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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 105 Introduction to Manufacturing Processes Lecture and MCH 106 Introduction to Manufacturing Processes Lab. Together, these courses are equivalent to MCH 101. (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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 107 Introduction to Manufacturing Materials Lecture and MCH 108 Introduction to Manufacturing Materials Lab . Together, these courses are equivalent to MCH 102. (Spring Semester)

MCH 105 - Introduction to Manufacturing Processes Lecture

Credit(s): .5

Corequisite(s): MCH 106.

This lecture 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 106 - Introduction to Manufacturing Processes Lab

Credit(s): .5

Corequisite(s): MCH 105.

This lab 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 experience 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 107 - Introduction to Manufacturing Materials Lecture

Credit(s): 1.5

Corequisite(s): MCH 108.

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 108 - Introduction to Manufacturing Materials Lab

Credit(s): .5

Corequisite(s): MCH 107.

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 110 - Introduction to CNC Lathe Operations Lecture

Credit(s): 1

Prerequisite(s): MCH 132.

Corequisite(s): MCH 111.

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 111 - Introduction to CNC Lathe Operations Lab

Credit(s): 2

Prerequisite(s): MCH 132.

Corequisite(s): MCH 110.

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 116 - Introduction to CNC Mill Operations Lecture

Credit(s): 1

Prerequisite(s): MCH 134.

Corequisite(s): MCH 117.

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 117 - Introduction to CNC Mill Operations Lab

Credit(s): 2

Prerequisite(s): MCH 134.

Corequisite(s): MCH 116.

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 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. (Spring Semester)

MCH 123 - Machine Quality Control and Precision Measurements Lecture

Credit(s): 1.5

Corequisite(s): MCH 128.

Students will develop the knowledge 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 Semester)

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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 110 Introduction to CNC Lathe Operations Lecture and MCH 111 Introduction to CNC Lathe Operations Lab. Together, these courses are equivalent to MCH 125. (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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 116 Introduction to CNC Mill Operations Lecture and MCH 117 Introduction to CNC Mill Operations Lab. Together, these courses are equivalent to MCH 127. (Spring Semester)

MCH 128 - Machine Quality Control and Precision Measurements Lab

Credit(s): 1.5

Corequisite(s): MCH 123.

Students will demonstrate the skills necessary 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 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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 123 Machine Quality Control and Precision Measurements Lecture and MCH 128 Machine Quality Control and Precision Measurements Lab. Together, these courses are equivalent to MCH 129. (Fall Semester)

MCH 131 - Introduction to Engine Lathes Lecture

Credit(s): 1

Corequisite(s): MCH 120 and MCH 129, MCH 133, or instructor's consent.

Basic machine tool operations and forming processes are introduced. Topics include lathe work, drilling operations, tooling, and fixture work. (Fall Semester)

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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 131 Introduction to Engine Lathes Lecture and MCH 133 Introduction to Engine Lathes Lab . Together, these courses are equivalent to MCH 132. (Fall Semester)

MCH 133 - Introduction to Engine Lathes Lab

Credit(s): 3

Corequisite(s): MCH 120 and MCH 129, MCH 131, or instructor's consent.

Students will use and operate basic machine tools. Topics include lathe work, drilling operations, tooling, and fixture work. The emphasis is on manual lathes. (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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 135 Introduction to Mills Lecture and MCH 138 Introduction to Mills Lab . Together, these courses are equivalent to MCH 134. (Spring Semester)

MCH 135 - Introduction to Mills Lecture
Credit(s): 1
Corequisite(s): MCH 138.
The student will describe advanced hands-on machine shop operations: explain set up and operation of manual milling machines, drill presses, band saws, grinders, and other equipment commonly found in manufacturing facilities. The student will describe the use of precision measuring tools and methods, utilize blueprints, and explain project process planning. Various types of steel and aluminum are used. (Spring Semester)

MCH 138 - Introduction to Mills Lab
Credit(s): 3
Corequisite(s): MCH 135.
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 199 - Capstone I: Machinist
Credit(s): 2
Prerequisite(s): enrollment in Machine Technology Tier III program.
This course provides the initial groundwork for completing special projects using knowledge gained in previous course work. All projects must be approved by the instructor. (Fall Semester)

MCH 210 - Advanced Manual Lathe Lecture
Credit(s): 1
Prerequisite(s): MCH 132.
Corequisite(s): MCH 211.
This course will cover carbide cutters and tool holders, spindle collets and drawbars, taper attachments, and digital readouts. Students will learn about advanced tooling attachments. The course will emphasize the need for close tolerances. (Spring Semester)

MCH 211 - Advanced Manual Lathe Lab
Credit(s): 2
Prerequisite(s): MCH 132.
Corequisite(s): MCH 210.
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 set up and cutting for simple cam, acme, and buttress threads. The course will emphasize the need for close tolerances. (Spring Semester)

MCH 212 - Advanced CNC Lathe Operations Lecture
Credit(s): 1
Prerequisite(s): MCH 125.
Corequisite(s): MCH 213.
This course provides advanced instruction in the setup and operation of the HAAS TM1 lathe. Topics will include specialty tooling, process control, and parts production. Students will also learn about quality control of parts production. (Spring Semester)

MCH 213 - Advanced CNC Lathe Operations Lab
Credit(s): 2
Prerequisite(s): MCH 125.
Corequisite(s): MCH 212.
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 parts production. (Spring Semester)

MCH 216 - Advanced Manual Mill Lecture
Credit(s): 1
Prerequisite(s): MCH 134.
Corequisite(s): MCH 217.
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 217 - Advanced Manual Mill Lab
Credit(s): 2
Prerequisite(s): MCH 134.
Corequisite(s): MCH 216.
Students will use rotary tables, indexing heads, and tilting vices. Sine bar setup, gear cutting, and line boring utilizing horizontal and vertical mills will be emphasized. Students will employ various work holding methods, jig and fixture work, location methods, and process planning. (Fall Semester)

MCH 218 - Advanced CNC Mill Operations Lecture
Credit(s): 1
Prerequisite(s): MCH 127.
Corequisite(s): MCH 219.
This course provides advanced instruction in the setup and operation of a HAAS CNC mill. Students will learn in process and quality control of part production. Other topics include specialty tooling, multi-axis machining, process control, and parts production. (Fall Semester)

MCH 219 - Advanced CNC Mill Operations Lab
Credit(s): 2
Prerequisite(s): MCH 127.
Corequisite(s): MCH 218.
Students will perform advanced setup and operation of a HAAS CNC 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 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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 216 Advanced Manual Mill Lecture and MCH 217 Advanced Manual Mill Lab . Together, these courses are equivalent to MCH 221. (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.
Online Option: Students opting to take the lecture portion of this course online should register for MCH 218 Advanced CNC Mill Operations Lecture and MCH 219 Advanced CNC Mill Operations Lab. Together, these courses are equivalent to MCH 222. (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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 210 Advanced Manual Lathe Lecture and MCH 211 Advanced Manual Lathe Lab . Together, these courses are equivalent to MCH 223. (Spring Semester)

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.

Online Option: Students opting to take the lecture portion of this course online should register for MCH 212 Advanced CNC Lathe Operations Lecture and MCH 213 Advanced CNC Lathe Operations Lab . Together, these courses are equivalent to MCH 224. (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 II: Machinist

Credit(s): 3
Prerequisite(s): enrollment in the Machinist 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.

Online Option: Students wishing to take the lecture portion of this course online should register for MCH 299 Capstone II: Machinist Lab and MCH 299 Capstone II: Machinist Lecture. Together, these courses are equivalent to MCH 299. (Spring Semester)

MCH 299 - Capstone II: Machinist Lab

Credit(s): 2.5
Prerequisite(s): enrollment in the Machinist Technician Tier IV program.
Corequisite(s): MCH 299 Capstone II: Machinist Lecture.
This course provides opportunities for the student to arrange to complete special projects using knowledge gained in previous course work. All projects must be approved by the instructor. Completion of a project is required. (Spring Semester)

MCH 299 - Capstone II: Machinist Lecture

Credit(s): .5
Prerequisite(s): enrollment in the Machinist Technician Tier IV program.
Corequisite(s): MCH 299 Capstone II: Machinist Lab.
This course provides opportunities for the student to arrange to complete special projects using knowledge gained in previous course work. All projects must be approved by the instructor. (Spring Semester)

Music (MUSI)

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)

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 105.
Corequisite(s): MUSI 141.
This course is a continuation of MUSI 105, 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: FVCC

Credit(s): 1
The FVCC 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 the 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: Glacier Chorale

Credit(s): 1
Prerequisite(s): audition.
An audition-only group, the chorale prepares and performs orchestral literature of the past and present and requires intensive rehearsals and public performances. 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 132F - 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 105. (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 106. (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: 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 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 162 - Chamber Ensembles: FVCC

Credit(s): 1

Prerequisite(s): instructor's consent.

This course consists of string, woodwind, brass, percussion, piano and vocal ensembles as appropriate to meet student needs. This course can be repeated for a total of four credits. Students receiving financial aid or veteran benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

MUSI 180 - Composition I: Fall

Credit(s): 2

Prerequisite(s): instructor's consent.

This course explores the craft of contemporary art music composition through the creation of original musical works, and the study of composition techniques and repertoire from the past century. Students will gain knowledge of a broad range of repertoire, aesthetics, and compositional techniques. (Fall Semester)

MUSI 180 - Composition I: Spring

Credit(s): 2

Prerequisite(s): MUSI 180 Composition I: Fall.

This course is a continuation of MUSI 180 Composition I: Fall, further exploring the craft of contemporary art music composition through the creation of original musical works, and the study of composition techniques and repertoire from the past century. Students will gain knowledge of a broad range of repertoire, aesthetics, and compositional techniques. (Spring Semester)

MUSI 194 - Seminar Workshop: Orchestra

Credit(s): 2

This non-audition pit orchestra presents training in accompanying performers in musicals, operas, and other theatrical shows involving music. 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)

MUSI 194 - Seminar Workshop: Vocal/Chorus

Credit(s): 2

This non-audition course presents vocal solo, small ensemble and chorus training for theatrical productions that include musicals, operas and other theatrical shows involving music. Course may be repeated for a total of six credits. Students receiving financial aid or veteran benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

MUSI 195 - Applied Music I
Credit(s): 1
Prerequisite(s): instructor's consent.
Title will vary. Private instruction in voice, piano, string, wind and/or percussion instruments. This course covers the study of performing techniques, music interpretation, expression, and style. A student may take a variety of music lessons, but a total of four credits may be earned for this course. Students receiving financial aid or veteran benefits should check with the Financial Aid Office before repeating the course. (Intermittently)

MUSI 202H - Introduction to Music Literature
Credit(s): 3
This course is a survey of representative examples of the standard music literature of the Western European tradition. Particular attention is paid to musical styles and forms and their relationship to musical understanding and effective listening. A basic knowledge of music fundamentals is expected. (Spring Semester)

MUSI 205 - Music Theory III
Credit(s): 3
Prerequisite(s): MUSI 106.
Corequisite(s): MUSI 240.
This course is a continuation of MUSI 106, 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 18th 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 18th 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 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 238 - Piano Proficiency Assessment
Credit(s): 0
Prerequisite(s): MUSI 195 and instructor's consent.
All majors pursuing a B.M. or B.M.E. degree must successfully complete all sections of the Piano Proficiency Assessment in order to attain upper-division standing in music. The exam is administered at the end of the semester and held at the University of Montana campus. This course may be repeated a total of eight times. Students receiving Financial Aid or vetern benefits should contact the Financial Aid Office before repeating this course. (Intermittently)

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)

MUSI 295 - Applied Music II
Credit(s): 1
Prerequisite(s): MUSI 195 and instructor's consent.
Title will vary. Continued private instruction in voice, piano, string, wind and/or percussion instruments. This course covers the study of performing techniques, music interpretation, expression and style at a more intermediate level. A student may take a variety of music lessons, but a total of four credits may be earned for this course. Students receiving financial aid or veteran benefits should check with the Financial Aid Office before repeating the course. (Intermittently)

MUSI 296 - Upper Division Required Performance
Credit(s): 0
Prerequisite(s): MUSI 195 and instructor's consent.
All majors pursuing a B.M. or B.M.E. degree must successfully complete all sections of the Upper Division Requirement Performance in order to attain upper-division standing in music. The performance is administered at the end of each semester and held at the University of Montana campus. This course can be repeated a total of eight times. Students receiving financial aid or veteren benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

Music Technology (MUST)

MUST 100 - Introduction to Music and Technology
Credit(s): 3
This course is an introduction to the use of technology in music and its industry, exploring the past, present and future of how technology has influenced the way we create and share music. It provides insight into building self-directed careers. From written music performed within the home, to modern day streaming and subscription-based music services, music and technology go hand in hand. Course may be repeated for a total of nine credits. Students receiving financial aid or veteran benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

MUST 101 - Music Technology and Mobile Devices
Credit(s): 3
Prerequisite(s): MUST 100.
This course is an exploration of music composition through modern technology, and employs hands-on recording, sound-design and electronic music composition using mobile devices, microphones, apps, and acoustically treated spaces. This course encourages experimentation in the student compositions, utilizing the very accessible and affordable tools at our disposal. Course may be repeated for a total of nine credits. Students receiving financial aid or veteran benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

Native American Studies (NASX)

NASX 105G - Introduction to Native American Studies
Credit(s): 3
Prerequisite(s): ANTY 101 or ANTY 220 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)

Nursing (NRSG)

NRSG 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)

NRSG 130 - Fundamentals of Nursing
Credit(s): 3
Prerequisite(s): BIOH 104, M 120, PSYX 100, WRIT 101, and acceptance into the Practical Nursing program.
Corequisite(s): NRSG 131.
This course introduces learners to knowledge, basic clinical skills, and attitudes essential for the nursing role. The course approach presents concepts and behaviors of nursing roles within the context of the nursing process and multicultural, holistic health care. Emphasis is on theoretical and practical concepts of nursing skills required to meet the needs of patients in a variety of settings. (Spring Semester)

NRSG 131 - Fundamentals of Nursing Laboratory
Credit(s): 3
Prerequisite(s): BIOH 104, M 120, PSYX 100, WRIT 101, and acceptance into the Practical Nursing program.
Corequisite(s): NRSG 130.
This lab is an integration of clinical skills performance using health care scenarios which focus on implementation of the nursing process, clinical decision making, and caring interventions in collaboration with the interdisciplinary team in a variety of health care settings. (Spring Semester)

NRSG 135 - Pharmacology for Practical Nurses
Credit(s): 3
Prerequisite(s): BIOH 104, M 120, PSYX 100, WRIT 101 and acceptance into the Practical Nursing program.
Corequisite(s): NRSG 136.
This course introduces the student to the knowledge needed to provide safe nursing care to clients across the life span in the administration of medications. Content covered includes the basic pathophysiology of common disease processes, as well as the basic principles of pharmacology such as pharmacokinetics, pharmacodynamics, medication interactions, and potential adverse medication reactions. The emphasis is on client centered care utilizing the nursing process and incorporating evidence-based practice within the licensed practical nurse scope of practice. (Spring Semester)

NRSG 136 - Pharmacology for Practical Nurses Laboratory

Credit(s): 2
Prerequisite(s): BIOH 104, M 120, PSYX 100, WRIT 101, and acceptance into the Practical Nursing program.
Corequisite(s): NRSG 135.
This lab integrates the knowledge of safe medication administration into a laboratory environment. This includes dosage calculation, and safe administration of medications through a variety of appropriate routes, including intravenous therapy. (Spring Semester)

NRSG 140 - Adult Health Nursing

Credit(s): 4
Prerequisite(s): NRSG 130, NRSG 131, NRSG 135, NRSG 136, NRSG 152, NRSG 153.
Corequisite(s): NRSG 141.
The course is designed to build upon the knowledge acquired in NRSG 130. The focus is on safe, effective care environments, health promotion and maintenance, and psychosocial and physiological integrity of adults who are experiencing health interruptions in well-defined practice settings. Principles of pharmacology, cultural competency, gerontology, nutrition, end-of-life and palliative care are integrated throughout the course. (Summer Semester)

NRSG 141 - Adult Health Nursing Clinical

Credit(s): 3
Prerequisite(s): NRSG 130, NRSG 131, NRSG 135, NRSG 136, NRSG 152, and NRSG 153.
Corequisite(s): NRSG 140.
This clinical is an integration of experiences in well-defined practice settings. The focus is on implementation of the nursing process, professional behaviors, communication, clinical decision making, caring interventions and collaboration in interdisciplinary practice to prevent, promote, maintain and restore basic health. (Summer Semester)

NRSG 142 - Nursing Care of Women and Children

Credit(s): 3
Prerequisite(s): NRSG 130, NRSG 131, NRSG 135, NRSG 136, NRSG 152, and NRSG 153.
Corequisite(s): NRSG 143.
This course introduces the student to the knowledge needed to provide safe nursing care for the female patient and family with regards to reproductive issues, including perinatal. Also included is the child patient and family with regards to normal growth and development as well as common and chronic disease processes. Psychosocial aspects of care, legal and ethical issues, and cultural beliefs will be incorporated throughout. The emphasis is on patient and family-centered care utilizing evidence-based practice, and effective interpersonal communication skills while functioning within an interdisciplinary team environment. (Summer Semester)

NRSG 143 - Nursing Care of Women and Children Clinical

Credit(s): 1
Prerequisite(s): NRSG 130, NRSG 131, NRSG 135, NRSG 136, NRSG 152, and NRSG 153.
Corequisite(s): NRSG 142.
This clinical integrates the knowledge of care for women, children, and families into a practical and observational clinical environment. (Summer Semester)

NRSG 148 - Leadership Issues for Practical Nurses

Credit(s): 2
Prerequisite(s): NRSG 130, NRSG 131, NRSG 135, NRSG 136, NRSG 152, and NRSG 153.
Corequisite(s): NRSG 149.
This course explores the legal and ethical principles of Practical Nursing leadership in providing safe, relationship-centered care. The concepts of accountability, fiscal responsibility in relation to patient outcomes, collaboration, effective communication, conflict management skills, critical thinking, delegation, principles of human caring, and prioritization are emphasized throughout the course. Application of concepts in the rural environment are included. (Summer Semester)

NRSG 149 - Leadership Issues for Practical Nurses Clinical

Credit(s): 1
Prerequisite(s): NRSG 130, NRSG 131, NRSG 135, NRSG 136, NRSG 152, and NRSG 153.
Corequisite(s): NRSG 148.
This clinical integrates theory with implementation of basic leadership skills. Preceptor experiences are based on selected nursing needs in the local and rural communities with a focus on knowledge, skills, and attitudes of nursing leadership needed to provide high quality, holistic, safe nursing care. (Summer Semester)

NRSG 152 - Gerontology and Community Nursing

Credit(s): 2
Prerequisite(s): BIOH 104, M 120, PSYX 100, WRIT 101, and acceptance into the Practical Nursing program.
Corequisite(s): NRSG 153.
This course presents the knowledge, skills, and attitudes needed to provide high quality holistic nursing care for the geriatric client, as well as other vulnerable populations in the local and rural communities. The safe application of the nursing process in community based, patient-centered, interdisciplinary care environments is emphasized in order to promote patients well-being in regards to common acute and chronic health issues, including end-of-life and palliative care. (Spring Semester)

NRSG 153 - Gerontology and Community Nursing Clinical

Credit(s): 2
Prerequisite(s): BIOH 104, M 120, PSYX 100, WRIT 101, and acceptance into the Practical Nursing program.
Corequisite(s): NRSG 152.
This clinical integrates theory into the clinical setting. The emphasis is on promoting the highest level of health and wellness for common acute and chronic health issues for the geriatric and other vulnerable populations in local and rural communities. (Spring Semester)

NRSG 230 - Nursing Pharmacology

Credit(s): 3
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 231.
This course provides the student with an overview of pharmacology with an emphasis of the study of effects, interactions, and nursing considerations of pharmacologic agents on the client population across the lifespan. The course also explores the ethical, legal, cultural and age implications of pharmacologic therapy across diverse populations and the lifespan. (Fall Semester)

NRSG 231 - Nursing Pharmacology Lab
Credit(s): 2
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 230.
This course is an integration of lab experiences focusing on the basic principles in providing safe medication administration, including intravenous therapy across diverse populations and the lifespan. (Fall Semester)

NRSG 232 - Foundations of Nursing
Credit(s): 3
Prerequisite(s): BIOH 201, CHMY 121, M 115 or M 152 or M 153 or M 171 and WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 233.
This course provides opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process. Students learn concepts and skills necessary for maintaining standard precautions, physical, and psychological safety, along with skills needed in therapeutic interventions. Students are introduced to the concepts of professional nursing, patient needs, safety, communication, teaching/learning, critical thinking, ethical-legal, rural nursing, cultural and ethnic diversity, and interdisciplinary patient-centered care. (Fall Semester)

NRSG 233 - Foundations of Nursing Lab
Credit(s): 3
Prerequisite(s): BIOH 201, CHMY 121 , M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 232.
An integration of lab experiences focusing on psychomotor nursing skills needed to assist individuals in meeting basic human needs. Application of the nursing process and hands-on learning experiences for nursing skills, patient assessments, and basic therapeutic skills are practiced and demonstrated. (Fall Semester)

NRSG 234 - Adult Nursing I
Credit(s): 3
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 235.
This course builds upon the knowledge and skills acquired in NRSG 232, and places them in the context of patient-centered care. Social, cultural, ethical, rural and legal issues, end-of-life and palliative care across diverse adult populations are introduced. Health promotion and prevention throughout the adult lifespan, with specific focus on the geriatric patient, is emphasized. Normal aging, health alterations associated with aging, and their implications are addressed. (Spring Semester)

NRSG 235 - Adult Nursing I Clinical
Credit(s): 2
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 234.
This clinical introduces the student to nursing practice in care of the stable adult patient. This includes care of the adult in a variety of health care settings. Students utilize the nursing process to develop individualized plans of care to prevent illness, promote wellness and maintain or restore health based on patient needs and evidence-based practice. (Spring Semester)

NRSG 236 - Health and Illness of Maternal Nursing
Credit(s): 2
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 237.
In this course, the student applies holistic concepts to the professional nursing care of the childbearing family including conception, prenatal, intrapartum, postpartum and newborn care. Content addresses health and complex alterations, reproduction and menopause, nutrition, therapeutic communication, ethical, legal, cultural and evidenced-based practice. (Spring Semester)

NRSG 237 - Health and Illness of Maternal Nursing Clinical
Credit(s): 1
Prerequisite(s): BIOH 201, CHMY 121, M 115, or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 236.
This clinical introduces the student to the role of the registered nurse in the care of the childbearing family. Students will utilize the nursing process to assess and develop individualized plans of care for mother and infant. Emphasis will be placed on patient education to promote healthy mother, infant and childbearing family bonding. (Spring Semester)

NRSG 244 - Adult Nursing II
Credit(s): 3
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 245.
This course builds upon previous knowledge of the nursing process and care of the patient experiencing acute and chronic disease alterations. Pathophysiologic processes are discussed as related to evidence-based nursing interventions. Students apply the nursing process, nutritional therapy, and pharmacological therapy utilizing interdisciplinary practice to promote, maintain, and restore health across the adult lifespan. (Fall Semester)

NRSG 245 - Adult Nursing II Clinical
Credit(s): 2
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 244.
In this clinical experience the student will provide care for individuals and families experiencing acute health alterations, and those associated with chronic disease processes. Students use the nursing process to systematically analyze information to plan and implement nursing interventions which are individualized and founded on evidence-based practice. (Fall Semester)

NRSG 246 - Health and Illness of Child and Family Nursing
Credit(s): 2
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 247.
In this course, the student applies holistic concepts to the professional nursing care of children and their families in health, illness, end-of-life and palliative care. Emphasis is placed on incorporating growth and developmental principles to facilitate positive health outcomes through health promotion, nutrition and disease prevention. (Fall Semester)

NRSG 247 - Health and Illness of Child and Family Nursing Clinical
Credit(s): 1
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 246.
In this clinical, students will utilize the nursing process, to provide nursing care of healthy and high-risk pediatric populations and their families experiencing disruptions in bio/psycho/social/cultural and spiritual needs. Emphasis is also placed on health promotion, health maintenance, and therapeutic communication. (Fall Semester)

NRSG 254 - Mental Health Concepts
Credit(s): 3
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101 and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 255.
In this course, the student focuses on the nursing concepts utilizing basic human needs, developmental theory, nursing process, therapeutic communication, and nursing interventions to promote and maintain health for clients and families experiencing mental-health issues. The student will examine client responses to stressors across the life span. Tasks of biological-behavioral concepts in psychosocial nursing care, rural and cultural impacts will be addressed. (Fall Semesters)

NRSG 255 - Mental Health Concepts Clinical
Credit(s): 1
Prerequisite(s): BIOH 201, CHMY 121, M 115 or acceptable substitution, WRIT 101, and acceptance into the Registered Nursing ASN program.
Corequisite(s): NRSG 254.
This clinical applies the knowledge of psychiatric and mental health nursing. Students will have mental health focused clinical experiences in a variety of settings. (Fall Semester)

NRSG 256 - Pathophysiology
Credit(s): 3
Prerequisite(s): BIOH 201, BIOH 211, and CHMY 121, or instructor's consent.
This course introduces the student to the basic principles and processes of pathophysiology including cellular communication, genes and genetic disease, forms of cellular injury, fluid and electrolyte/acid base balance, immunity, stress coping and illness, and tumor biology. Pathophysiology of the most common alterations according to body systems will be discussed as well as the latest developments in research and patient-centered nursing interventions. (All Semesters)

NRSG 258N - Principles of Pathophysiology
Credit(s): 4
Prerequisite(s): BIOH 201.
Corequisite(s): BIOH 211.
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. (Spring Semester)

NRSG 259 - Adult Nursing III
Credit(s): 3
Prerequisite(s): NRSG 230, NRSG 231, NRSG 232, NRSG 233, NRSG 234, NRSG 235, NRSG 236, NRSG 237, NRSG 244, NRSG 245, NRSG 246, NRSG 247, NRSG 254, NRSG 255.
Corequisite(s): NRSG 260, NRSG 261.
This course expands on the nursing role in care of patients with complex health alterations. Students utilize evidence-based, interdisciplinary interventions to meet patient and family needs. (Spring Semester)

NRSG 260 - Adult Nursing III Lab
Credit(s): 1
Prerequisite(s): NRSG 230, NRSG 231, NRSG 232, NRSG 233, NRSG 234, NRSG 235, NRSG 236, NRSG 237, NRSG 244, NRSG 245, NRSG 246, NRSG 247, NRSG 254, NRSG 255.
Corequisite(s): NRSG 259 and NRSG 261.
In this lab students are introduced to basic electrocardiogram interpretation, advanced concepts of perfusion, ventilation and complex pharmacologic regimens. (Spring and Summer Semesters)

NRSG 261 - Adult Nursing III Clinical

Credit(s): 2
Prerequisite(s): NRSG 230, NRSG 231, NRSG 232, NRSG 233, NRSG 234, NRSG 235, NRSG 236, NRSG 237, NRSG 244, NRSG 245, NRSG 246, NRSG 247, NRSG 254, NRSG 255.
Corequisite(s): NRSG 259, NRSG 260.
This clinical experience focuses on application of the nursing process and utilization of information to provide comprehensive nursing care to the acutely ill patient experiencing complex health alterations in a variety of settings. Emphasis is placed on prioritization of care and collaboration with other members of the interdisciplinary team to ensure optimal client care. (Spring and Summer Semesters)

NRSG 266 - Managing Client Care for the RN

Credit(s): 2
Prerequisite(s): NRSG 230, NRSG 231, NRSG 232, NRSG 233, NRSG 234, NRSG 235, NRSG 236, NRSG 237, NRSG 244, NRSG 245, NRSG 246, NRSG 247, NRSG 254, NRSG 255.
Corequisite(s): NRSG 267.
In this course students examine concepts of leadership and management emphasizing prioritization, delegation, and supervision of nursing care for patients across the lifespan. Topics also include communication techniques, legal and ethical issues, care of the culturally diverse patient, and utilizing change theory. Health care policy, finance, and regulatory environment issues are explored and applied to planning, collaborating and coordinating care across the continuum. (Spring and Summer Semesters)

NRSG 267 - Managing Client Care for the RN Clinical

Credit(s): 2
Prerequisite(s): NRSG 230, NRSG 231, NRSG 232, NRSG 233, NRSG 234, NRSG 235, NRSG 236, NRSG 237, NRSG 244, NRSG 245, NRSG 246, NRSG 247, NRSG 254, NRSG 255.
Corequisite(s): NRSG 266.
This precepted clinical experience focuses on principles of nursing leadership and management in a variety of settings. Students apply knowledge to provide culturally competent, holistic interventions within the professional nursing role for individuals, communities, and families across the lifespan. (Spring Semester)

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 100 - Introduction to Pharmacy Practice for Technicians

Credit(s): 2
Prerequisite(s): acceptance into the Pharmacy Technology program.
This course offers information regarding careers in pharmacy. It includes the history of pharmacy practice and defines roles of personnel relating to pharmaceutical services. Ethical standards of the occupation and federal and state laws regulating pharmacy practice with emphasis on Montana State Pharmacy Law regulating pharmacy technicians are studied. Day-to-day operations including preparation, maintenance, and storage of pharmaceuticals and records, and basic communication skills required of the pharmacy technician. (Fall Semester)

PHAR 198 - Internship: Hospital and Community Pharmacy Practice

Credit(s): 8
Prerequisite(s): State Board of Pharmacy Technician in Training License; a grade of "C" or better in PHAR 100 and M 120.
Corequisite(s): (if not previously completed with a grade of "C" or better) AH 117, 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. (Spring Semester)

Philosophy (PHL)

PHL 101H - Introduction to Philosophy: Reason and Reality

Credit(s): 3
This course addresses the perennial questions of philosophy as they are found in the many nuances of *metaphysics* (what is real?), *epistemology* (what is knowledge?), and *ethics* (how ought we live?) through a study of selected great thinkers in the history of Western philosophy. (Fall and Spring Semesters)

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)

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 116 - Intermediate Black and White Photography

Credit(s): 3
Prerequisite(s): PHOT 113.
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)

PHOT 154F - Exploring Digital Photography

Credit(s): 3
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 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 254 - Intermediate Digital Photography

Credit(s): 3
Prerequisite(s): PHOT 154.
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 254 - Intermediate Digital Photography

Credit(s): 3
Prerequisite(s): Permalink.
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 255 - Introduction to Color Photography

Credit(s): 3
Prerequisite(s): a grade of "B-" or better in PHOT 116.
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 255 - Introduction to Color Photography

Credit(s): 3
Prerequisite(s): a grade of "B-" or better in Permalink.
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. 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 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

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 153 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)

PHSX 207NL - College Physics II

Credit(s): 5
Prerequisite(s): PHSX 205.
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 171.
Corequisite(s): M 172.
This is the first course in a three-semester sequence in general physics. Topics in mechanics (linear and rotational motion, energy and momentum, conservation principles), fluid dynamics, waves (simple harmonic motion, mechanical waves, superposition, sound), and heat (the laws of thermodynamics and the kinetic theory of gas). Laboratory work included. (Spring Semester)

PHSX 222NL - Physics II (with Calculus)

Credit(s): 5
Prerequisite(s): PHSX 220.
Corequisite(s): M 172.
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 222.
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
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 ten credits. Students receiving financial aid or veteran benefits should check with the Financial Aid Office before repeating this course. (Intermittently)

Process Plant Technology (PPT)

PPT 201 - Introduction to Hydraulic and Pneumatic Systems

Formerly: DST 205
Credit(s): 4
Industrial systems use the force and power of fluids and gases to perform a multitude of tasks. This course is designed to provide students with the basic understanding of how hydraulics and pneumatics, in an industrial setting, are used to complete tasks from simple to complex. The course will address subjects including hydraulic/pneumatic components, symbols, schematics, design, and mathematics associated with such power systems. (Fall Semester)

PPT 202 - Advanced Hydraulic and Pneumatic Systems
Formerly: DST 206
Credit(s): 4
Prerequisite(s): PPT 201.
This course extends the knowledge base from the introductory course to a more practical setting for the application of fluid power systems. Students will be exposed to more complex elements of hydraulic/pneumatic design. They will become more effective in the installation, adjustment, and troubleshooting of industrial systems. Practical circuits will be created and debugged using hands-on hydraulic/pneumatic equipment. Troubleshooting issues will emphasize systematic strategies instead of trial and error methods. (Spring Semester)

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 230G - 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)

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 100.
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 100.
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)

PSYX 250NA - Fundamentals of Biological Psychology
Credit(s): 3
Prerequisite(s): PSYX 100.
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 100.
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 for Substance Abuse Counselors
Formerly: PSYX 264 Fundamentals of Group Dynamics
Credit(s): 3
Prerequisite(s): CAS 242 or PSYX 100 or instructor's consent.
This course is an introduction to the use of group counseling in substance abuse treatment. The stages of group development, leadership skills, and ethical concerns in this approach to substance abuse treatment are highlighted. (Spring Semester)

PSYX 275 - Fundamentals of Behavior Modification
Credit(s): 3
Prerequisite(s): PSYX 100.
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]). (Intermittently)

RLST 206G - Origins of God
Credit(s): 3
This is a course about religion and the development of religious thought; this is not a class teaching religion itself. We will be examining the development of the human idea of the divine in an academic and secular setting, leaving the idea of the divine and the nature of the divine-human relationship open to questioning, examination, and diverse interpretations and expressions. (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 101.
This course is a continuation of RUSS 101. (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 101 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 101, SIGN 201.
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 (SOCI)

SOCI 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)

SOCI 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)

SOCI 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)

SOCI 215A - Introduction to Sociology of the Family

Credit(s): 3

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)

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 101.

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 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): GPHY 284 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): GPHY 284 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)

SRVY 248 - Unmanned Aerial Mapping Systems
Credit(s): 2
This course covers the fundamental components of small unmanned aerial systems (UASs) and how they are used to produce high resolution, spatially accurate, planimetric maps, and 3-D models of the terrain. (Fall Semester)

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): GPHY 284 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
Credit(s): 1
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 ten credits. Students receiving financial aid or veteran's benefits should check with the Financial Aid Office before repeating the course. (Intermittently)

SRVY 290 - Undergraduate Research: Projects in GIS
Credit(s): 2
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. This course may be repeated for a total of four credits. Students receiving financial aid or veteran benefits should check with the Financial Aid Office before repeating this course. (Fall and Spring Semesters)

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 115, 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 120, 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)

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 (WLDG)

WLDG 100 - Introduction to Welding Fundamentals
Credit(s): 3
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. Some computer training is included. (All Semesters)

WLDG 111 - Welding Theory I Practical
Credit(s): 4
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 119 - Welding Certification II (Emphasis)
Credit(s): 2
Prerequisite(s): WLDG 185 or instructor's consent.
This class provides experienced welders the opportunity to prepare for, practice, and complete the AWS National Welding Certificate exam. The training will include flat, horizontal, vertical, and overhead positions for mild and medium steel. Emphasis is placed on AWS standards for Structural Steel welding codes employing 1" steel for unlimited thickness certification to AWS standards. 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. (Fall and Spring 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 136 - 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 145 - Fabrication Basics I
Credit(s): 2
Corequisite(s): WLDG 111 and WLDG 117
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 Semester)

WLDG 146 - Fabrication Basics II
Credit(s): 3
Prerequisite(s): WLDG 145.
This course builds on the previous fabrication course by reinforcing basic fabrication techniques, and introducing some advanced techniques. The course also introduces students to robotics and automated systems and their operating characteristics. Students will learn basic coordinate systems and how to design, layout, 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 210 - Pipe Welding
Credit(s): 4
Prerequisite(s): 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. (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): WLDG 210, 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 benefits should check with the Financial Aid Office before repeating this class. (All Semesters)

Writing (WRIT)

WRIT 095~ - Developmental Writing

Credit(s): 3
Prerequisite(s): a score of 6-10 on the FVCC Writing Placement assessment or a COMPASS score of 38 or better or instructor's consent.
This is a developmental writing course focused on building skills necessary for expository writing. Based on assessment of student needs, instruction emphasizes paragraph development resulting in unity, coherence, and organziation. 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): a score of 11 or better on the FVCC Writing Placement, or a COMPASS score of 38 or better, 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 205 or WRIT 101.
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 101 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)

WRIT 204 - Academic Journal

Credit(s): 3
This course allows students to experience the production of an academic journal from concept to publication. Students will review submissions, edit creative works, design, and produce an academic journal. (Fall and Spring Semesters)

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Dawn Marquardt, PLS - Marquardt & Marquardt
Ryan Mitchell, PLS, PE - Robert Peccia & Associates
Josh Nelson, PLS - Sands Surveying
Jamie Reed, PLS - Sands Surveying
Mark Roedel, PLS - MDOT
Tom Sands, PLS - Sands Surveying
Thomas Sibson, PLS - 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
Greg Thurston, PLS
Jim Turner, PLS - MDOT
Jeff Underwood, PLS
Darrell Vermilyea, PLS - MDOT
Ian Wargo, PE, LSI - Robert Peccia & Associates
R. Kim Wunderlich, PLS - Glacier Surveying

Web Technology

Reed Gregerson - The Zane Ray Group
Amanda Guy - Wheelie Creative Design, LLC
John Klippel - American Web Design
Andrea Korb - Whitefish Web Design
Peter Lanier - Flathead Beacon
Blake Stout - Torrent Technologies

Welding and Fabrication Technology

Scott Yarde - Countryside Welding
Shawn Decker - North Valley Steel
T. J. Naldrett - Nomad
James Mower - NORCO
Phil Eisenzimer - American Gas & Welding

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