



# Summer

## **BULLETIN 2016**



**MONTANA STATE UNIVERSITY • BOZEMAN**

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# Welcome

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Welcome to Summer Session 2016 at Montana State University! The MSU Summer Session program is committed to providing a variety of classroom, outdoor, and online opportunities for students to advance or complete their educational goals.

Within the pages of this bulletin you'll discover an exciting mix of courses designed to meet the needs of a diverse audience. For example:

- If you work, or leave Bozeman for the summer, you can still begin or continue your MSU education by enrolling in one or more **online courses**.
- Are you an incoming freshman? Jump-start your college career by fulfilling a **core requirement** or two.
- If you're looking for something different this summer, browse through the **Uniquely Montana courses**. You can earn college credit while studying subjects such as photography, wildlife, music, and more!
- Are you a post-baccalaureate student planning to apply to medical or dental school? MSU's Summer Session offers a series of **science** and **mathematics** courses designed to meet the special academic needs of pre-med students.
- **Summer master's degree programs** are designed to be completed in three to four summer sessions. These programs enable students to earn master of science degrees in mathematics education or in science education.

And when you're not in class . . .

- Be sure to explore the friendly city of Bozeman and surrounding area and partake in one or more **special summer events** (p. 50).

We invite you to join us in Bozeman this summer for a season of learning, adventure, and discovery!

David Singel  
Associate Provost  
Director, Summer Session

Please visit our Web site for the most current information: <http://www.montana.edu/summer>

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Bozeman, MT 59717

Montana State University reserves the right to make changes in the regulations, courses and fees announced in this bulletin without advance notice.

For further information, contact:

Office of Summer Session or the Director of Admissions

Montana State University

Bozeman, MT 59717

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# General Information

## Summer Session 2016 Dates

First 6-week session May 16–June 24

Second 6-week session June 27–August 5

12-week session May 16–August 5

Intersession June 13–August 5\*

Education Intersession June 13–July 22

\* *Intersession is designed for courses of varying length*

## Final Exam Dates

Summer Session courses conclude in their entirety on the dates given above. Final exams are generally administered on the last day of class.

## Holidays

Memorial Day Monday, May 30

Independence Day Observed Monday, July 4

## Admission Procedures

How to Apply for Admission (p. 10)

## Registration

**Continuing students** and **Former students who have filed an Intent to Register form** (Registration for Summer Session same time as Fall Semester). **Please refer to the Fall Registration Handbook** (<http://www.montana.edu/registrar/documents/pdfs/RegistrationHandbook.pdf>) **for instructions on how to register properly for SUMMER 2016 and FALL 2016.**

March 21 Advising begins

March 28–April 8 Course Selection/Web registration for Summer 2016. Web site: [www.montana.edu](http://www.montana.edu)

March 28–April 8 Course Selection/Web registration for Fall 2016. Web site: [www.montana.edu](http://www.montana.edu)

**All other students (new, transfer, etc.)** Please see How to Apply for Admission (p. 10) and How to Register for Classes (p. 6) for more information.

## Housing

For on-campus housing information, see Summer Housing (p. 17).

## Fee Payment

April 18–May 18, Student Accounts Office, 102 Montana Hall  
See Summer Fees (p. 15) for a fee schedule.

## For More Information

### Office of Summer Session

212 Montana Hall  
P.O. Box 172560  
Montana State University  
Bozeman, MT 59717-2560  
Phone: (406) 994-7136  
E-mail: [summer@montana.edu](mailto:summer@montana.edu)

Web site: [www.montana.edu/summer](http://www.montana.edu/summer)

## Summer Session Staff

David Singel  
Associate Provost  
Director, Summer Session

Keely Holmes  
Program Manager

# How to Register for Classes

Please note: Prior to registering for classes, **former students must file an Intent to Register form** with the Registrar's Office; **new students and summer-only students must apply for admission to MSU** (p. 10).

## Student Categories

### Continuing Students

- Continuing students are those registered in courses during Spring Semester 2016.
- Continuing students are **automatically admitted** to Summer Session and may simply register in the same manner and at the same time as they do for Fall Semester 2016. The Summer registration alternate PIN (also referred to as "advisor code" or "registration code") is the same number assigned to use for Fall registration.
- Advising for Summer Session begins **Monday, March 21** and registration begins **Monday, March 28** on the Web (refer to the Fall 2016 Registration Handbook for registration timetable).

### Former Students

- Former students are those who have previously been admitted to MSU and paid fees, but who did not attend or withdrew from Spring Semester 2016.
- Former students must **file an Intent to Register form** with the Registrar's Office. Former students should use the online **Intent to Register** through MyInfo. Registration information will be sent via the email address provided on the Intent to Register form.

### New Students

- New students are those who have not previously been admitted to MSU and who wish to enroll in the University as degree-seeking students.
- Before new students are allowed to register for courses, they must **apply for admission** and be accepted into the University.
- **New Student Welcome Letter and** (<http://www.montana.edu/summer/documents/Summer%20Invite.NEW%202016%20Hilja%20Heinrich.pdf>) **from the Director of Orientation, Korrin Engel**
- **New Student Checklist for Summer Session Orientation and Registration**
- **Registration procedure**
  - Undergraduates**
    - Advising and Registration for new Summer Session students will begin **Wednesday, April 13**. All new students will be advised by the Academic Advising Center (AAC).
    - Students should contact the AAC at (406) 994-3532 or [advising@montana.edu](mailto:advising@montana.edu) to schedule an advising appointment (these can be done in person, or via phone or Skype).
    - Following the advising appointment, students will be given their registration "PIN" (or code) along with instructions on how to register for Summer Session courses.
    - Students are required to attend an Orientation session before registering for Fall Semester 2016 courses. The AAC advisor will put a hold on the student's account so they cannot register for fall classes until they attend an Orientation session.
    - Transfer students may select Orientation Option 1 (spend one weekday on campus between April 18 - August 19) or Option 2 (attend the Transfer Student Orientation Program on Wed., Aug. 24). Freshman students may select a summer or fall Orientation session.

- For more information about MSU Orientation, or to register for an Orientation session, please go to <http://www.montana.edu/admissions/orientation/>.
- **Graduates—May register on the Web** (instructions will be included with your admission acceptance letter from the Graduate School).

### b. Check Your Registration Status

- Check your registration status on the Web by going to the MSU home page ([www.montana.edu](http://www.montana.edu)) and following these links: MyInfo; Enter Secure Area; Login (follow instructions on that page); Student Services; Registration; Student Detail Schedule.

### c. Obtain Your Fee Summary

- Obtain your fee summary on the Web by going to the MSU home page ([www.montana.edu](http://www.montana.edu)) and following these links: MyInfo; Enter Secure Area; Login (follow instructions on that page); Student Services; Student Records; Electronic Billing and Payment.

### d. Pay Your Fees

- Fee payment is due by the third day of class and may be done online, by mail, or in person at the Student Accounts cashier's window, Montana Hall. For more information regarding payment of fees, please see Summer Fees (p. 15).

## Summer-Only and Other Non-Degree Students

- Summer-only students are those who have not previously been admitted to MSU and who wish to attend just the summer term. A typical summer-only student is one who seeks to earn MSU credits during Summer Session and then transfer those credits to their home campus elsewhere. Other summer-only students may include non-degree graduates or practicing teachers who wish to earn credits for purposes of recertification or salary advancement.
- Before summer-only students are allowed to register for courses, they must **apply for admission** and be accepted into the University (see admission procedures (p. 10)).
- **Registration procedure**
  - Undergraduates**
    - Advising and Registration for new Summer Session students will begin **Wednesday, April 13**. All new students will be advised by the Academic Advising Center (AAC).
    - Students should contact the AAC at (406) 994-3532 or [advising@montana.edu](mailto:advising@montana.edu) to schedule an advising appointment (these can be done in person, or via phone or Skype).
    - Following the advising appointment, students will be given their registration "PIN" (or code) along with instructions on how to register for Summer Session courses.
    - **Graduates—May register on the Web** (instructions will be included with your admission acceptance letter from the Graduate School)
  - For instructions on how to check your registration status, obtain your fee summary, and pay your fees, see items 2, 3 and 4 under "New Students".

## For More Information About Registration Contact

### Office of the Registrar

(406) 994-6650

[registrar@montana.edu](mailto:registrar@montana.edu) ([//registrar@montana.edu](http://registrar@montana.edu))

[www.montana.edu/registrar](http://www.montana.edu/registrar)

### The Graduate School

(406) 994-4145

1-800-255-7962

[gradschool@montana.edu](mailto:gradschool@montana.edu)

[www.montana.edu/wwwdg](http://www.montana.edu/wwwdg)

### Office of Summer Session

(406) 994-7136

[summer@montana.edu](mailto:summer@montana.edu)

[www.montana.edu/summer](http://www.montana.edu/summer)

## Orientation Information For Summer Session Students

All new students will be sent an Orientation brochure, including information on registration, immunizations, parking, and fee payment, starting in early March. Please feel free to stop by the Office of Admissions with questions upon arrival on campus.

**Campus tours are offered at 9:00 a.m. and 2:00 p.m.**, Monday through Friday, leaving from the Office of Admissions, 201 Strand Union. For more information contact:

Orientation Office

201 Strand Union

(406) 994-2827

1-888-MSU-CATS

[orientation@montana.edu](mailto:orientation@montana.edu)

Visit the Orientation Web page at [www.montana.edu/admissions/orientation](http://www.montana.edu/admissions/orientation).

## Fall Semester 2016 Registration

Please refer to the Fall 2016 Registration Handbook for instructions on how to register properly for Fall 2016. All students must meet with an academic advisor in order to be eligible to register for Fall classes.

### Continuing Students

Continuing students may register for Fall Semester from March 28 through August 26.

### New Undergraduate/Non-Degree Students

New undergraduate non-degree students who attend Summer Session and who would like to continue as non-degree students during Fall Semester may select courses during their summer attendance.

Undergraduate non-degree students who attend Summer Session and who would like to be admitted as degree-seeking undergraduates for Fall Semester must meet the requirements of admission as outlined in the University Course Bulletin. For information regarding admission procedures, students should contact:

Office of Admissions

201 Strand Union

(406) 994-2452

1-888-MSU-CATS

[admissions@montana.edu](mailto:admissions@montana.edu)

Visit the Office of Admissions Web page at [www.montana.edu/admissions](http://www.montana.edu/admissions).



# Advising Services for New Students

New students are encouraged to contact the associate/assistant dean or other official representative of their college, or the Academic Advising Center, for assistance with course selection, connecting with an adviser, or for help with other questions.

## Agriculture

Nora Smith, Ass't. Dean for Academic Programs  
202 Linfield Hall  
(406) 994-5745  
norasmith@montana.edu

## Arts and Architecture

JoDee Palin  
217 Cheever Hall  
(406) 994-4405  
jpalin@montana.edu (bstruman@montana.edu)

## Business

Brenda Truman, Director  
337 Reid Hall  
(406) 994-4421  
bstruman@montana.edu

## Education, Health & Human Development

250 Reid Hall  
(406) 994-4133

### Dept. of Education Advising Center

132 Reid Hall  
(406) 994-1880  
cmeldahl@montana.edu

### Dept. of Health & Human Development Advising Center

121 Hosaeus PE Complex  
(406) 994-4001  
hhd@montana.edu

## Engineering

Jennifer Clark, Student Success Coordinator  
212 Roberts Hall  
(406) 994-2272  
engrinfo@coe.montana.edu

## Letters and Science

David Cherry, Assoc. Dean  
2-202 Wilson Hall  
(406) 994-4288  
dcherry@montana.edu

## Nursing

Teresa Seright, Associate Dean for Undergraduates  
111 Sherrick Hall  
(406) 994-2660  
dmccray@montana.edu

## University Studies

Diane Donnelly, Director  
130 Gaines Hall

(406) 994-3532  
advising@montana.edu

## Health Professions Advising

Sheila Nielson-Preiss, Director  
317 Leon Johnson Hall  
(406) 994-1670  
hpa@montana.edu

## The Graduate School

Donna Negaard, Student Services Mngr.  
108 Montana Hall  
(406) 994-4145  
gradschool@montana.edu

## Academic Advising Center

130 Gaines Hall  
(406) 994-3532  
advising@montana.edu

# Academic Information

Students are held responsible for knowledge of the regulations governing registration, drop/add, withdrawal and other procedures outlined in this bulletin, in the MSU Course Bulletin, and in any special registration instructions which may be issued on a semester basis.

## Drop/Add Procedures

Deadline dates for dropping and adding courses are listed in the table below. For more information visit the MSU Online Catalog Drop/Add Regulations and Procedures (<http://catalog.montana.edu/curriculum-enrollment-graduation>) page.

### Drop/Add Schedule

	First 6-Week	Intersession*	Second 6-Week	12 Week
<b>Instruction Begins</b>	Monday, May 16	Monday, June 13	Monday, June 27	Monday, May 16
<b>Last day to add online</b>	Tuesday, May 17	Wednesday, June 15	Tuesday, June 28	Thursday, May 19
<b>Last day to add; Pass/Fail petitions due</b>	Thursday, May 19	Monday, June 20	Thursday, June 30	Wednesday, May 25
<b>Last day to drop online</b>	Thursday, May 19	Monday, June 20	Thursday, June 30	Wednesday, May 25
<b>Drop without grade during this time</b>	May 16-23	June 13-22	June 27-July 5	May 16-June 1
<b>W grades only for drops during this time</b>	May 24-June 20	June 23-July 28	July 6-August 1	June 2-July 26
<b>No drops beginning this date</b>	Tuesday, June 21	Friday, July 29	Tuesday, August 2	Wednesday, July 27
<b>Classes End</b>	Friday, June 24	Friday, August 5	Friday, August 5	Friday, August 5

\* Intersession designed for courses of varying length. Courses that do not conform to session beginning or ending dates and are typically short in length will be assigned appropriate deadlines not specified above.

## Grade Reports and Transcripts

Grades for all sessions that end by August 5 will be processed and available on August 10, and will be posted on the Web at MyInfo.

Transcripts of summer work can be processed beginning August 19. Students who want official transcripts sent to another institution or to their place of employment need to request an official transcript to be sent after their grade is posted. For more information visit the Registrar's Web page at [www.montana.edu/registrar](http://www.montana.edu/registrar).

## Improper Registration

A student who attends a class without being properly registered for it will not receive credit.

## Taking Courses for Zero Credit Auditor

Registered students may, with the permission of the instructor, enroll in a course as auditors and earn zero credit. No grade will be given, and such a course may not be challenged at a later date for credit. Students must declare their intent to audit by the third class session. Students who audit pay the same fees as students enrolled for credit.

## Release of Information

Montana State University is in compliance with the Family Educational Rights and Privacy Act of 1974 (referred to as the "Buckley Amendment") and the Montana Privacy Act. Briefly, these laws establish specific guidelines concerning the release of information and the students' privilege to inspect and review their own education records.

## The Graduate School Summer Dates and Deadlines

<b>May 15</b>	Last day for international applications for fall semester (if this is different than your department, follow your department's date)
<b>May 16</b>	Instruction begins
<b>May 30</b>	Memorial Day holiday (no classes; offices closed)
<b>June 10</b>	Last day for graduate students to file "Application for Advanced Degree"
<b>June 27</b>	Second 6-week session begins
<b>July 4</b>	Independence Day holiday observed (no classes; offices closed)
<b>July 19</b>	Last day for master's comprehensive or doctoral examination. Last day for approval of thesis, dissertation, or professional paper (if professional paper is submitted to the library) by formatting advisor.
<b>August 5</b>	Intersession ends; Last day of semester; classes end for 12 week and second 6 week, Last day to withdraw application for advanced degree

# How to Apply for Admission

## Information for New Students and Summer-Only Students

Please note: Continuing students are automatically admitted to Summer Session. Former students are admitted to the University but must file an Intent to Register form ([http://www.montana.edu/registrar/documents/pdfs/Intent\\_to\\_Register.pdf](http://www.montana.edu/registrar/documents/pdfs/Intent_to_Register.pdf)) with the Registrar's Office.

## Admission Application Priority Deadlines for Summer Session 2016

Student Category	First 6-Week Session and Full 12 Week Session	Second 6-Week Session
New Students (degree-seeking undergraduates)	May 1, 2016	June 1, 2016
New Students (degree-seeking graduates)	based on departmental deadlines	based on departmental deadlines
Summer-Only and other Non-Degree Students (non-degree undergraduates)	May 1, 2016	June 1, 2016
Summer-Only and other Non-Degree Students (non-degree graduates)	based on departmental deadlines	based on departmental deadlines
International Student Applications	Feb. 1, 2016 (final deadline)	Feb. 1, 2016 (final deadline)

## Immunization Requirements

Students must meet MSU's immunization requirements before registering for classes. Student Health Services requires a copy of an official health record to certify that you have met these requirements. To save money and time, please update your immunizations with your family physician before you come to MSU. If you were born before January 1, 1957, you are considered immune to measles, mumps and rubella and are not required to have these immunizations. However, you will need to complete the tuberculosis screening form and you may need to have a TB test. Consult the Student Health Services website for immunization requirements (<http://www.montana.edu/health/immunization.html>) and to access the tuberculosis screening form (<http://www.montana.edu/health/documents/TBScreen.pdf>).

Immunization records should be submitted directly to the Student Health Service by one of the following methods:

- Online (<https://shs103.msu.montana.edu>) (preferred method): To register, you will need to know your MSU ID and you will be asked to select a user name and password. You will enter the immunization data and complete the tuberculosis screening form. You will need to submit copies of your immunization records and the results of your TB test (*if your answers on the screening form determine you need one*). You can scan these into a pdf and upload them or you can fax or mail the records as described below.
- Fax or Mail: On the Student Health Services (<http://www.montana.edu/health/immunization.html>) website, click on "forms" in the column on the left. Download and print the immunization and Tuberculosis Screening forms. Complete the forms, add any needed health records (including the results of your TB test if your answers on the screening form determine you need one), and fax to (406) 994-2504 or mail to:

MSU Student Health Services  
P.O. Box 173260  
Bozeman, MT 59717-3260.

For more information, call the Student Health Services at (406) 994-2311.

## For More Information About Admission Contact

### Office of Admissions

(406) 994-2452 or  
1-888-MSU-CATS  
[admissions@montana.edu](mailto:admissions@montana.edu)

### The Graduate School

(406) 994-4125  
1-800-255-7962  
[gradschool@montana.edu](mailto:gradschool@montana.edu)

### Office of Summer Session

(406) 994-7136  
[summer@montana.edu](mailto:summer@montana.edu)

## Services for Students with Disabilities

Students desiring accommodations for a disability may request services through:

### Disability, Re-entry and Veteran Services

180 Strand Union  
(406) 994-2824  
TTY: (406) 994-6701  
[byork@montana.edu](mailto:byork@montana.edu)

## Undergraduate Admission

### Information for New Students and Summer-Only Students

Please note: Continuing students are automatically admitted to Summer Session. Former students are admitted to the University but must file an Intent to Register form ([http://www.montana.edu/registrar/documents/pdfs/Intent\\_to\\_Register.pdf](http://www.montana.edu/registrar/documents/pdfs/Intent_to_Register.pdf)) with the Registrar's Office.

## Admission Application Priority Deadlines for Summer Session 2016

Student Category	First 6-Week Session and Full 12 Week Session	Second 6-Week Session
New Students (degree-seeking undergraduates)	May 1, 2016	June 1, 2016
Summer-Only and other Non-Degree Students (non-degree undergraduates)	May 1, 2016	June 1, 2016
International Student Applications	Feb. 1, 2016 (final deadline)	Feb. 1, 2016 (final deadline)

## New Students

### Freshman Degree-Seeking Undergraduates are:

- Pursuing a bachelor's degree at MSU
- After completion of high school or its equivalent, have attempted fewer than 12 college-level credits
- Required to submit a final, official high school transcript (sent directly to MSU from the student's high school) and scores sent directly from

ACT or SAT (students who graduated more than three years ago are not required to submit ACT or SAT scores)

Students who did not complete high school are required to submit official High School Equivalency Test results (such as GED, HiSet or TASC) and scores from ACT or SAT (students who would have graduated more than three years ago are not required to submit ACT or SAT scores).

**Admission application procedure:**

1. Complete the MSU Application for Admission (<https://www.msuadmissions.org/application/index.cfm?&isndsl>) or Complete a paper application (<http://www.montana.edu/admissions/applications/app.pdf>). This is a large .pdf file (1.45 MB) which can be downloaded and printed
2. Submit the application along with the application fee (\$38 online or \$30 paper)
3. Submit required documents (transcripts and/or test scores)
4. Submit record of immunizations and tuberculosis (TB) screening form to Student Health Services (see "Immunization Requirements")

The Office of Admissions will contact you by mail regarding the status of your admission within two weeks of the receipt of your application.

**Transfer Degree-Seeking Undergraduates are:**

- Pursuing a bachelor's degree or second bachelor's degree at MSU
- Graduated from a high school or its equivalent, and have attempted 12 or more college-level credits following high school graduation
- Required to have complete and official transcripts sent directly to MSU from each college or university attended
- In good standing at the previous institution(s)

**Admission application procedure:**

1. Complete the MSU Application for Admission (<https://www.msuadmissions.org/application/index.cfm?&isndsl>) or Complete a paper application (<http://www.montana.edu/admissions/applications/app.pdf>). This is a large .pdf file (1.45 MB) which can be downloaded or printed
2. Submit the application along with the application fee (\$38 online or \$30 paper)
3. Submit required official transcripts from EACH college or university (sent directly from the institution to MSU)
4. Submit record of immunizations and tuberculosis (TB) screening form to Student Health Services (see "Immunization Requirements")

The Office of Admissions will contact you by mail regarding the status of your admission within two weeks of the receipt of your application.

**Summer-Only and Other Non-Degree Students**

**Non-Degree Undergraduates:**

- Do not currently hold a bachelor's degree
- Do not plan to pursue a bachelor's degree at MSU
- Are advised by the Academic Advising Center
- Are not eligible to receive financial aid
- May not represent the University in intercollegiate athletic competition

**Admission application procedure:**

1. Complete the MSU Application for Admission (<https://www.msuadmissions.org/application/index.cfm?&isndsl>)

or Complete a paper application (<http://www.montana.edu/admissions/applications/app.pdf>). This is a large .pdf file (1.45 MB) which can be downloaded and printed

2. Submit the application along with the application fee (\$38 online or \$30 paper)
3. Submit record of immunizations and tuberculosis (TB) screening form to Student Health Services (see "Immunization Requirements")

The Office of Admissions will contact you by mail regarding the status of your admission within two weeks of the receipt of your application.

**Graduate Admission**

**Information for New Students and Summer-Only Students**

Please note: Continuing students are automatically admitted to Summer Session. Former students are admitted to the University but must file an Intent to Register form ([http://www.montana.edu/registrar/documents/pdfs/Intent\\_to\\_Register.pdf](http://www.montana.edu/registrar/documents/pdfs/Intent_to_Register.pdf)) with the Registrar's Office.

**Admission Application Priority Deadlines for Summer Session 2016**

Student Category	First 6-Week Session and Full 12 Week Session	Second 6-Week Session
New Students (degree-seeking graduates)	based on departmental deadlines	based on departmental deadlines
Summer-Only and other Non-Degree Students (non-degree graduates)	based on departmental deadlines	based on departmental deadlines
International Student Applications	Feb. 1, 2016 (final deadline)	Feb. 1, 2016 (final deadline)

**New Students**

**Degree-Seeking Graduate Students are:**

- Pursuing a graduate degree at MSU (see The Graduate School website (<http://www.montana.edu/gradschool>), for more information regarding graduate programs)
- College graduates, currently holding at least a bachelor's degree

**Summer-Only and Other Non-Degree Students**

**Non-Degree Graduates are:**

- College graduates currently holding at least a bachelor's degree
- Are not pursuing a graduate program leading to an advanced degree, but wish to take graduate coursework;
- Have not been offered full or provisional admission;
- Have non-degree standing as recommended by the admitting department or The Graduate School;
- Applied after the admission deadline; or
- Are applying for programs such as: WWAMI Medical Education program, WIMU Regional Program in Veterinary Medicine, Addiction Counseling Certificate, Post-Baccalaureate Pre-Medical Certificate, and Teacher Certification programs.

In some cases, taking and passing coursework as a non-degree graduate student may help to provide evidence of a student's ability to perform well in a graduate program. Some departments also may recommend the

completion of undergraduate coursework prior to admission into a specific graduate program.

- Taking any courses offered by the university (undergraduate or graduate level) other than restricted departmental courses. They are not eligible for financial aid. (Note: only 9 graduate level credits taken as a ND student are allowed to be transferred into a degree seeking program)

### **Admission Application Procedure**

1. Complete the application for graduate admission online at this link: [www.montana.edu/gradschool/apply.html](http://www.montana.edu/gradschool/apply.html). This online application process allows you to find out the application procedures for the department you are applying to and allows you to track your application process from materials received by the department (e.g. Letters of recommendation) through the committee review process.
2. Pay: \$60 non-refundable application fee
3. Request that an official transcript from the institution granting your bachelor's degree be sent to The Graduate School at MSU at the time you submit your application. MSU undergraduate alumni do not need to provide MSU transcripts (however, uploading an unofficial transcript during the application process is always helpful). Non-degree graduate students must keep in mind that if planning to apply to a degree program, only nine (9) non-degree graduate level courses can transfer (if accepted) into a degree program; only three (3) can transfer (if accepted) into a certificate program.
4. If applying to a degree program, please take a moment to review specific application requirements and deadlines established by the admitting department; these requirements differ program to program and may include other documents necessary for the application process (e.g., Graduate Record Exam, Resume, Personal statement, and so forth).
5. Admitted students are required to submit records of immunizations and tuberculosis (TB) screening to Student Health Service (See "Immunization Requirements (<http://www.montana.edu/health/forms.html>)")
6. Additional Materials are required by International Applicants (<http://www.montana.edu/gradschool/admissions/apply.html>).

Every applicant who applies for admission to MSU and completes an application will receive a formal decision by The Graduate School, whether they have, or have not, been admitted. This application process involves a review of your completed application packet by the program committee prior to it arriving in the Graduate School for final review.

For further assistance, contact The Graduate School at (406) 994-4125 or [gradschool@montana.edu](mailto:gradschool@montana.edu), or visit the School's web site at [www.montana.edu/gradschool/](http://www.montana.edu/gradschool/)

# Graduate Programs

## Graduate Degrees Conferred

### Degrees

Adult & Higher Education (M.Ed., Ed.D. & Ph.D.)\*\*  
 Agricultural Education (M.S.)\*\*  
 American Studies (M.A. & Ph.D.)  
 Animal & Range Science (M.S. & Ph.D.)  
 Applied Economics (M.S.)  
 Applied Mechanics (Ph.D.)  
 Architecture (M.Arch.)  
 Art (M.F.A.)  
 Art History (M.A.)  
 Biochemistry (Ph.D.)  
 Bioengineering Engineering (M.Eng.)  
 Biological Sciences (M.S.) (Ph.D.)  
 Chemical & Biological Engineering (M.S. & Ph.D.)  
 Chemical Engineering (M.S., M.Eng. & Ph.D.)  
 Chemistry (M.S. & Ph.D.)  
 Civil Engineering (M.S. & Ph.D.)  
 Computer Science (M.S.) (Ph.D.)  
 Counseling (M.S.) (Options: Marriage & Family, Mental Health, and School)  
 Curriculum & Instruction (M.Ed., Ed.D. & Ph.D.)\*\*  
 Earth Sciences (M.S. & Ph.D.)  
 Educational Leadership (M.Ed., Ed.D. & Ph.D.) (Superintendent & Principal Endorsement\*)  
 Education Specialist (Ed.S.)  
 Electrical & Computer Engineering (M.S., M.Eng. & Ph.D.)  
 Ecology & Environmental Sciences (Ph.D.) Interdisciplinary  
 Engineering Management, Professional (P.M.)  
 English (M.A.)  
 Entomology (M.S.)  
 Environmental Engineering (M.S. & Ph.D.) Interdisciplinary  
 Exercise & Nutrition Sciences (M.S.)  
 Family Financial Planning (M.S.)\*  
 Fish & Wildlife Management (M.S.)  
 Fish and Wildlife Biology (Ph.D.)  
 Food, Family & Community Health Sciences (M.S.)  
 Health Sciences (M.S.) Interdisciplinary  
 History (M.A. & Ph.D.)  
 Immunology and Infectious Disease (M.S. & Ph.D.)  
 Industrial & Management Engineering (M.S. & Ph.D.)  
 Land Rehabilitation (M.S.) Interdisciplinary  
 Land Resources & Environmental Sciences (M.S.)\*\*  
 Materials Science (Ph.D.) (Interdisciplinary & Intercampus)\*\*  
 Mathematics (M.S. & Ph.D.) (Options in Math Education)  
 Mechanical Engineering (M.S. & M.Eng. & Ph.D.)  
 Microbiology (M.S. & Ph.D.)  
 Native American Studies (M.A.)  
 Neuroscience (M.S. & Ph.D.)  
 Nursing: ADRN to MN & Clinical Nurse Leader (M.N.)\*\*  
 Nursing (D.N.P.) (Options: Practice Family/Individual or Psych/Mental)\*\*  
 Optics Engineering (M.S.) Interdisciplinary  
 Physics (M.S. & Ph.D.)  
 Plant Pathology (M.S.)  
 Plant Science (M.S. & Ph.D.)  
 Professional Accountancy (M.P.Ac.)  
 Psychological Science (Ph.D.)  
 Public Administration (M.P.A.)  
 Science Education (M.S.) Interdisciplinary\*\*  
 Science & Natural History Film Making (M.F.A.) Interdisciplinary  
 Statistics (M.S. & Ph.D.)

## Certificate Programs

Addiction Counselor\*\*  
 Applied Statistics\*  
 Architecture, Professional Practice\*\*  
 Chemistry Teaching\*\*  
 College Teaching\*  
 Earth Science Teaching\*\*  
 Elementary School Science Teaching\*\*  
 Library Media\*\*  
 Life Science Teaching\*\*  
 Manufacturing Best Practices—Process\*\*  
 Manufacturing Best Practices—Systems\*\*  
 MDI: Montana Dietetic Internship\*  
 Native American Studies\*\*  
 Nursing Education\*\*  
 Physics Teaching\*\*  
 Post-Baccalaureate Pre-Medical\*  
 Science & Engineering Management — Business\*\*  
 Science & Engineering Management — Project\*\*  
 Teacher Certification (online through NPPT)\*\*

\* online program

\*\* online or onsite program

## Graduate Admissions

Persons eligible to apply as degree-seeking graduates must 1) hold a four-year baccalaureate degree from an accredited institution and 2) have demonstrated potential for graduate study, as indicated by the admitting department. Academic record is one such indicator of potential. The standard is cumulative B average (3.0–4.0) or better of undergraduate or graduate work. Some departments may require a master's degree prior to admission to a doctoral program.

Admission decisions are made on an individual basis. The application is first reviewed by the admitting department's review committee and then by The Graduate School to determine if an applicant's academic history and preparation are satisfactory before a decision is made. All applicants will receive a formal decision.

Students may be admitted as a degree seeking or a non-degree seeking student. In a degree seeking status, a student can be admitted as either a full, conditional, or provisional standing. In a conditional admittance, the Graduate School is typically missing an official document. A hold will prevent an admitted student from registering until the document is received. With a provisional standing, there may be stipulations placed on the admittance written into the acceptance letter, developed by the department and the Graduate School. For non-degree admissions, all of the above apply, except for provisional admittance.

Applicants should consider themselves admitted only when an official acceptance notification has been received from The Graduate School. Being accepted into a graduate degree program may be limited by the availability of faculty, staff, facilities, area of interest, and so forth. In such cases, it is not possible to admit all applicants who are otherwise qualified.

For full explanation of the above, see the Graduate School's Policies and Procedures.

## Entrance Exams

Each department sets its own entrance exam requirements. Please contact the department to which you are applying for more information (see Department Listing (<http://www.montana.edu/gradschool/programs.html>)).

### **English Proficiency Exams**

International applicants must submit an English Proficiency exam score, using: TOEFL, PTE, or IELTS. See the International Application ([http://www.montana.edu/gradschool/policy/admissions\\_intl.html](http://www.montana.edu/gradschool/policy/admissions_intl.html)) page for additional information.

### **American Cultural Exchange Language Institute**

The American Cultural Exchange Language Institute (ACELI) at Montana State University is an academic preparation program in seven levels.

Through enrollment, the ACELI prepares international students for the TOEFL exam.

**For detailed information, see The Graduate School at MSU Web page at [www.montana.edu/gradschool](http://www.montana.edu/gradschool).**

# Summer Fees

## Fees as of January 2016

Fees are based on a per credit-hour rate as approved by the Montana Board of Regents. The fee schedule is also posted at [www.montana.edu/summer/fees.shtml](http://www.montana.edu/summer/fees.shtml).

### Determining Your Fees

Registration, tuition and building fees are charged to all students (included in the tuition fee table to the right). Health fees, activity fees and intramural fees are included; the amount depends on attendance for the 6-week sessions, intersession, or the 12-week session. Some courses also require materials or special use fees; such fees are assessed at registration. The schedule below lists the fees up to 12 credits for all sessions. If the number of credits exceeds 12, the rate remains the same as 12 credits.

### Undergraduate and Post-Baccalaureate Six Weeks & Intersession

Credits	Resident	Non-Resident
01	\$335.10	\$1,014.20
02	\$582.60	\$1,940.80
03	\$830.10	\$2,867.40
04	\$1,077.60	\$3,794.00
05	\$1,325.10	\$4,720.60
06	\$1,572.60	\$5,647.20
07	\$2,013.40	\$6,767.10
08	\$2,260.90	\$7,693.70
09	\$2,508.40	\$8,620.30
10	\$2,755.90	\$9,546.90
11	\$3,003.40	\$10,473.50
12	\$3,250.90	\$11,400.10

### Twelve Weeks

Credits	Resident	Non-Resident
01	\$335.10	\$1,014.20
02	\$582.60	\$1,940.80
03	\$830.10	\$2,867.40
04	\$1,077.60	\$3,794.00
05	\$1,325.10	\$4,720.60
06	\$1,572.60	\$5,647.20
07	\$2,046.50	\$6,800.20
08	\$2,294.00	\$7,726.80
09	\$2,541.50	\$8,653.40
10	\$2,789.00	\$9,580.00
11	\$3,036.50	\$10,506.60
12	\$3,284.00	\$11,433.20

### Graduate

#### Six Weeks & Intersession

Credits	Resident	Non-Resident
01	\$379.50	\$1,058.60
02	\$671.40	\$2,029.60
03	\$963.30	\$3,000.60
04	\$1,255.20	\$3,971.60
05	\$1,547.10	\$4,942.60
06	\$1,839.00	\$5,913.60

07	\$2,324.20	\$7,077.90
08	\$2,616.10	\$8,048.90
09	\$2,908.00	\$9,019.90
10	\$3,199.90	\$9,990.90
11	\$3,491.80	\$10,961.90
12	\$3,783.70	\$11,932.90

### Twelve Weeks

Credits	Resident	Non-Resident
01	\$379.50	\$1,058.60
02	\$671.40	\$2,029.60
03	\$963.30	\$3,000.60
04	\$1,255.20	\$3,971.60
05	\$1,547.10	\$4,942.60
06	\$1,839.00	\$5,913.60
07	\$2,357.30	\$7,111.00
08	\$2,649.20	\$8,082.00
09	\$2,941.10	\$9,053.00
10	\$3,233.00	\$10,024.00
11	\$3,524.90	\$10,995.00
12	\$3,816.80	\$11,966.00

### Other Fees

- **New Student Fee:** All new students pay a one-time New Student Fee, included in their fees during their first semester of attendance at MSU. The fee is \$65.00 for new freshmen and \$50.00 for new transfer students.
- **Auditors:** Regularly enrolled students who enroll for courses without credit (audit) pay the same fees as students enrolled for credit.
- **Non-Matriculated Students (Listeners):** Any adult person not regularly enrolled at MSU may, with the permission of the instructor, register for a nonlaboratory class as a non-matriculated student upon the payment of the same fees as regularly enrolled in-state students. The person so registering may not participate in class discussion nor take examinations. Applications for non-matriculated enrollment should be made through the Registrar, who will provide a Non-Matriculated Attendance Form for acceptance by the instructor. Activity courses may not be taken by non-matriculated students.

### Obtaining Your Fee Summary

Properly registered students may obtain their fee summary on the Web by going to the MSU home page ([www.montana.edu](http://www.montana.edu)) and following these links: MyInfo; Enter Secure Area; Login (follow instructions on that page); Student Services; Student Records; Electronic Billing and Payment.

Students taking 7 credits or more are charged health, dental, activity, and intramural fees (included in the proposed fee tables, above). **Note:** All fees subject to change with Montana Board of Regents approval.

### Fee Payment

Fee payment for Summer Session will take place April 18 through May 18. Payments may be made using one of the following options:

- **Online** (credit card payments and E-checks) under MyInfo (Login, select Electronic Billing and Payment)
- **Mail** payment to:  
Student Accounts  
P.O. Box 172640  
Montana State University  
Bozeman, MT, 59717-2640



- **Drop** payment in the student payment box at the Student Accounts cashier's window, Montana Hall

Please make checks payable to Montana State University.

Bill confirmations for students who have zero or credit balances may be done on the Web under MyInfo (Login, select Electronic Billing and Payment)

**Fee payments are due within three days from the beginning date of any given course. Students who do not pay fees by this deadline may have their registration cancelled for that course.**

### Fee Payment Deadlines

First 6 weeks May 18

Second 6 weeks June 29

Full 12 weeks May 18

Intersession June 15

### Fee Refunds

Refunds for Summer Session are handled in the same manner as those for other academic semesters. All fees except the Registration fee, ID fee and Orientation fee are refunded to students who withdraw from MSU during the period of registration and before the beginning of classes, in which case the registration of the student is cancelled. No refund of fees will be given for withdrawal from courses for which a "W" grade is given (see Drop/Add Regulations and Procedures page at [www.montana.edu/wwwcat/register/register1.html](http://www.montana.edu/wwwcat/register/register1.html) for more information about the "W" grade).

Refunds for financial aid in excess of your university bill for Summer Session will be available after May 18. Refunds for the balance of funds will be by Direct Deposit, or mailed to the student if the student has not signed up for Direct Deposit, provided you have completed all necessary documentation and signed all promissory notes and returned these materials to the Financial Aid Office. Be sure your address(es) is current at the Student Accounts Office, Registrar's Office or Financial Aid Office. A refund will not be processed until bill confirmation has been done with the Student Accounts Office.

### Refunds for Drop/Adds

Courses added are retroactive to the first day of class instruction for fee assessment. No refund of fees will be made after the sixth day of instruction in a 6-week or intersession, or after the 12th day of instruction in the 12-week session, including dropped courses.

### Refunds for University Withdrawals

After the beginning of classes, fees are refunded according to the date the student completes the university withdrawal form received from the Office of Student Success.

The following special considerations will determine the amount of refund due, if any, for university withdrawal:

All refunds are based on the date of university withdrawal; whether or not a student attended class(es) has no bearing on the refund. Refunds are further determined by enrollment in a 6-week, intersession, or 12-week session.

Short courses are a part of the Summer Session and included in the total credit load for fee assessment and refund determination. No refund is made for dropping a course of two weeks or less in duration unless it is dropped prior to the beginning of the class.

### Veteran Educational Benefits

Veterans, dependents, and members of the Guard/Reserves who are eligible for VA educational benefits; also veterans who are Montana residents and who served on active duty during specified periods of conflict and have exhausted their GI Bill benefits may be eligible for the MUS Veteran Tuition Waiver, please contact:

Veteran Support Center  
185 Strand Union  
Montana State University  
Bozeman, MT 59717  
(406) 994-3661  
[vets@montana.edu](mailto:vets@montana.edu)  
[www.montana.edu/veteran](http://www.montana.edu/veteran)

### Withdrawal Refund Schedule

The following withdrawal refund schedule indicates the percentage of fees refunded according to the day of the session:

#### 6-Week Sessions and Intersession

##### First 6-Week Session

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
May 16-17	90%
May 18-19	75%
May 20-24	50%
After May 24	No refunds

##### Second 6-Week Session

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
June 27-28	90%
June 29-30	75%
July 1-2	50%
After July 2	No refunds

##### Intersession

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
June 13-14	90%
June 15-16	75%
June 17-20	50%
After June 20	No refunds

##### 12-Week Session

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
May 16-19	90%
May 20-26	75%
May 27-June 2	50%
After June 2	No refunds

\* Does not include Registration Fee, which is non-refundable.

# Summer Housing and Meals

## Residence Halls & Suites

### Residence Life/University Food Service

Located in Miller Dining Commons on the ground level  
 Hours: 8:00 a.m.-5:00 p.m., Monday-Friday (closed weekends and all state and federal holidays)  
 (406) 994-2661  
[housing@montana.edu](mailto:housing@montana.edu)  
[www.montana.edu/reslife](http://www.montana.edu/reslife)

Stay in a residence hall during Summer Session for maximum convenience to your Summer Session classes!

Summer residence hall housing in both traditional double and single rooms as well as suite-style spaces is available. Each living space is furnished with beds (bed linens at your request), desks and chairs, as well as dressers and closets. All residence halls have cable and high-speed internet via ResNet. Residents also have access to public kitchen spaces, computer kiosks, laundry facilities, game rooms and TV lounges.

Residence halls are located on campus providing convenient access to Miller Dining Commons, Hosaeus Student Recreation Center, and the Intramural Fields.

Hall and room assignments are made beginning in April on a first-come, first-served basis. All halls and rooms are non-smoking, inclusive of private rooms and public area space.

### Residence Halls will open on Sunday, May 15, at 9:00 a.m.

Please visit the Residence Life web site at [www.montana.edu/reslife](http://www.montana.edu/reslife) for a complete listing of residence hall offerings.

Estimated room rates listed below are based on a double occupancy room. Single occupancy rooms will be available on a limited basis, per request. Single room rates will be available February 2015.

### Estimated Room Rates

1st 6-week session (May 15-June 25)	\$462.00*
2nd 6-week session (June 26-August 6)	\$462.00*
12-week session (May 15-August 6)	\$923.00*
12-month contract** (May 7-August 23)	\$1018.00*

\* All residence halls have a \$10 Social Fee established by the Residence Hall Association, which is assessed in conjunction with room and board payments each semester. The Social Fee is assessed to every student living in the residence halls and is nonrefundable. Room and Board prices include ResNet Internet service.

\*\* In order to be eligible for the 12-month housing contract, students must have lived in the residence halls during spring semester 2016 and have a 2016-2017 housing application on file. Early cancellation of contract (either summer or fall) will result in penalties.

## Credit Requirements

Students enrolled in the 6 and 12 week sessions must be registered for a minimum of 3 credits at the time of their housing to be eligible to live in the residence halls. Students participating in the “12-month contract” do not need to be enrolled in Summer Session courses to reside in the halls.

## Summer Housing Applications and Contracts

Applications will be available starting February 15 on the Residence Life website at [www.montana.edu/reslife](http://www.montana.edu/reslife). Please call the Residence Life Office at (406) 994-2661 for more information. Notification of room assignments will be sent mid-April. Room charges are due within the first four days of check-in and are separate from registration fees. Summer Session housing will be available starting on Sunday, May 15, at 9:00 a.m.

## Food Service

Miller Dining Commons is the dining hall available for the summer. Residents are not required to contract for a meal plan during the Summer Session. Meals are available by selecting one of the three plans below that are loaded onto the CatCard or on an individual “pay-as-you-go” basis at the dining hall entrance. Every meal purchased is all-you-care-to-eat with a wide variety of choices. Miller Dining Commons will be open 7am to 7pm Monday-Friday for the summer session.

Availability of meals throughout Summer Session on the weekends is dependent on conference activity. Hours and days of service will be posted at the front desks.

## Meal Plan Options

(purchased at the Residence Life Cashier’s Office located in Johnstone Center):

25 meals	\$175.00
50 meals	\$325.00
75 meals	\$450.00

## Individual Meals

(purchased at the entrance to the Food Service):

Breakfast	\$7.00
Lunch	\$8.00
Dinner	\$9.00

For more information about meals, visit the Food Service Web site at [www.montana.edu/ufs](http://www.montana.edu/ufs).

## Family & Graduate Housing

### Family & Graduate Housing Office

1502 West Garfield  
 Bozeman, MT 59715  
 (406) 994-3730  
[fgfo@montana.edu](mailto:fgfo@montana.edu)  
[www.montana.edu/fgfo](http://www.montana.edu/fgfo)

Family & Graduate Housing consists of 587 apartments located in eight apartment communities (Paisley Court, Branegan Court, West Julia Martin, McIntosh Court, Grant-Chamberlain Drive, Westside Houses, Peter Koch Tower and Nelson Story Towers). All units are within walking distance to campus facilities.

The Family & Graduate Housing Office (FGHO) sponsors events for children, non-student spouses, students, and the entire family. Enjoy a variety of events such as barbecues and concerts throughout the summer, as well as a week's worth of "welcoming" activities at the beginning of the academic year. Child care is available through the ASMSU Daycare Center (located near Family & Graduate Housing) during Summer Session as well as fall and spring semesters. Children's playgrounds are conveniently placed near each apartment community. A monthly newsletter is distributed to apprise tenants of upcoming Family & Graduate Housing events and pertinent seasonal information.

Bozeman, MT 59717-2080

## **Eligibility**

FGHO welcomes applications for both "summer only" and "year-round" qualified students. A student may reside in Family & Graduate Housing with individuals whom the student has or shares a legal responsibility. Examples of such relationships include, but are not limited to: married students, students with dependent children, students with dependent parent(s), and students with disabilities who require a live-in personal care attendant.

Single graduate students, second-degree undergraduates, and undergraduates who have earned more than seventy-two (72) credits, may choose to reside in one-bedroom apartments located in Peter Koch Tower and Nelson Story Towers. They may also choose to reside either alone or with a same-gender student roommate in Grant Chamberlain Drive.

At the time of occupancy, student applicants must provide documentation of their legal relationship to those persons residing with the student. Such documentation could include: a marriage license, children's birth certificate(s), custody decree and/or letter of guardianship, or other documentation sufficient to establish a legal responsibility. Second-degree undergraduate students must provide a copy of their degree from an accredited four-year institution. Individuals who are not accompanied by their legal dependent and are not a graduate, second-degree undergraduate or upper classman student with seventy-two (72) completed credits or more may be accommodated in the residence halls.

## **Credit Requirements**

In order for a new student to be eligible for Family & Graduate Housing, undergraduate students must be registered for a minimum of nine credits; graduate students must be registered for a minimum of five credits. Any change in student status must be immediately reported to FGHO.

For a description of housing, including floor plans, rental rates and building descriptions, visit the Family & Graduate Housing Buildings Web page at [www.montana.edu/fgh/buildings](http://www.montana.edu/fgh/buildings).

## **Summer Application for Housing**

All FGHO applications must be accompanied by a \$100.00 application fee. Written notice must be given to cancel the application in order to receive an application fee refund, less a \$50.00 processing fee. All housing assignments and preferences are subject to availability. It is highly recommended that you send your application well before the desired date of occupancy. Assignments are prioritized by date of application.

You can apply online or print an application through the FGHO Web site at [www.montana.edu/fgh](http://www.montana.edu/fgh).

If you choose to print and mail your application, please send the FGHO application plus the \$100.00 application fee to:

Cashier's Office  
Hedges Complex  
Montana State University  
P.O. Box 172080

# Cat Card

## Cat Card (Campus ID Card)

### Cat Card Office

Room 134, Strand Union Building

(406) 994-CARD (994-2273)

[www.montana.edu/catcard](http://www.montana.edu/catcard)

The Cat Card is a photo ID card which serves as campus identification, a meal plan card, library card, campus debit card\*, and access control card. Deposits can be made at the Cat Card Office, 134 SUB; the Residence Life Cashier's Office in the Hedges Complex; or online at [www.montana.edu/catcard](http://www.montana.edu/catcard).

- \* Purchases may be made using Cat Card as a debit card at any of the following locations on campus:
- Ask Us Information Center
  - ASMSU Intramurals
  - ASMSU Outdoor Recreation
  - Bobcat Ticket Office
  - Brewed Awakenings
  - Business Office
  - CopyCats
  - Dental Clinic
  - Library & Library Photo Copies
  - MSU Bookstore
  - Rec Center
  - Residence Hall dining facilities
  - Residence Hall laundry facilities
  - Residence Life Cashier's Office
  - Strand Union Food Service facilities (Avo's, Bobcat Grill, Freshens, Sola @ Jabs Hall, SRO Espresso, Sweet Shop, Union Market, Wild Flour Pizza & Pasta)
  - Student computer labs for printing
  - Student Health Service
  - Student Printing
  - Testing Services
  - University Police
  - Vending machines (select)

# Forms and Applications

## Admission Form

### Undergraduate Students

All new undergraduate students—whether they be degree-seeking, non-degree, or summer-only—must complete the MSU Application for Admission, available online at [www.montana.edu/admissions/apply.html](http://www.montana.edu/admissions/apply.html). A paper application is also available from the Office of Admissions upon request: (406) 994-2452 or [admissions@montana.edu](mailto:admissions@montana.edu). ([admissions@montana.edu](mailto:admissions@montana.edu))

### Graduate Students

New graduate students may access an online application for admission by going to [www.montana.edu/gradschool/apply.html](http://www.montana.edu/gradschool/apply.html). Paper applications are available upon request from the Graduate School: (406) 994-4145 or [gradschool@montana.edu](mailto:gradschool@montana.edu). ([gradschool@montana.edu](mailto:gradschool@montana.edu))

## Course Registration

New and summer-only undergraduate students will no longer be using a paper form to register for classes (p. 6).

## Intent to Register Form

The Intent to Register form is used by former students to notify the Office of the Registrar that they wish to return to enrollment at MSU. Former students are those who have previously been admitted to MSU and paid fees, but who did not attend or withdrew from Spring Semester 2016. Former students who wish to attend Summer Session 2016 should file an Intent to Register form 30 days prior to registration, using the online form through MyInfo:

- Enter Secure Area, Login
- Select Student Services
- Select MSU Bozeman Online Intent to Register

The Registrar's Office will send registration information to students via the email address they have provided on the Intent to Register form.

## Summer Housing Applications

- Residence Hall Applications: [www.montana.edu/reslife](http://www.montana.edu/reslife)  
Call (406) 994-2661 for more information
- Family & Graduate Housing Applications: [www.montana.edu/fgah](http://www.montana.edu/fgah)  
Call (406) 994-3730 for more information

# Student Services at MSU

## Dean of Students Office

174 Strand Union

994-2826

[www.montana.edu/deanofstudents](http://www.montana.edu/deanofstudents)

The Dean of Students Office staff is available to students, parents, faculty, and members of the community for consultation about student-related matters, both academic and non-academic. We support a number of campus programs, including Fraternity/Sorority Life, Student Conduct, and Parent & Family Relations. We also provide support for students as they develop necessary skills as adult members of our academic community.

## ASMSU

221 Strand Union

994-2933

[www.montana.edu/asmsu](http://www.montana.edu/asmsu)

The Associated Students of Montana State University provides essential elements to a rewarding college experience: representation, education, entertainment, and service programs.

### ASMSU services include:

ASMSU Senate (Student government)	994-2933
Bicycle Repair Shop	994-3621
Campus Entertainment (Art exhibits, concerts, films, comedy, lively arts & lectures)	994-4839
Day Care (See details, this page)	994-4370
Exponent Newspaper	994-3976
KGLT Radio	994-3001
Leadership Institute	994-7275
Legal Service (Inexpensive legal service)	994-2933
Outdoor Recreation	994-3621
Recreational Sports & Fitness	994-5000
Streamline Transit (Free transportation for students, staff, faculty, and the public)	587-2434
All other ASMSU services	994-2933

## Allen Yarnell Center for Student Success

### Career, Internship & Student Employment Services

177 Strand Union

994-4353

[www.montana.edu/careers](http://www.montana.edu/careers)

Career, Internship & Student Employment Services offers a full range of career planning and recruitment services to students, alumni, the campus community, and employers. A primary goal of the office is to help students find satisfying careers and gain experience and skills which will clarify goals and facilitate entry into the job market. Services include:

- **HireABobcat.com** (<http://www.hireabobcat.com>), a web page that hosts student employment, internship, and full-time employment opportunities.

- **Career coaching** to assist individuals with choice of major or career, job search preparation, career changes, or return to school (undergraduate or graduate programs).
- **Internships** in a variety of fields. We offer assistance arranging academic credit for internships.
- **On-campus recruiting** for summer, internship, and career positions with employers in business, industry, government, education, and non-profit fields.
- **Workshops** on career planning, job searching, interviewing, resume writing, and various career options.
- **A credential file service** for teaching and graduate school candidates, plus all other students and alumni.

## Office of Student Success

177 Strand Union

994-ROAR (7627)

[www.montana.edu/success](http://www.montana.edu/success)

The Office of Student Success believes in students and their potential. Students who visit our office learn to take an active role in owning and directing their education and future. The Office of Student Success offers several programs and services aimed at helping students succeed at MSU. These programs and services include:

- **Student Success Advisors** are expert learning strategists who meet one-on-one with students to teach them tools they can use to improve their academic performance.
- **First Year Initiative (FYI)** is here to assist first-year students make the transition to college.
- **Second Year Initiative (2YI)** is here to help second-year students navigate any difficulties they may have experienced in their freshman year.
- **Student Early Alert System** connects referred students with student success advisors who provide them with tools to improve their performance and help them formulate a success plan for the remainder of the semester.
- **Workshops** to help students get organized, learn the ins and outs of MSU, and connect with other students.
- **ChampChange** rewards undergraduate students for engaging in events and programs at MSU and the Bozeman community.
- **SmartyCats Tutoring** offers by-appointment tutoring for \$2.00 per session and FREE drop-in tutoring in the Library, 2nd floor, for a wide variety of courses.
- **Learning Strategies (US 103)**. Experienced Office of Student Success staff members who specialize in learning strategies teach this one-credit course.
- **Education, the World of Work and You (US 210)**. This three-credit course is a great resource for sophomore students who have not yet narrowed down their major or career plans.
- **Return to Learn**. Return to Learn is a program designed for students seeking re-admission to MSU after taking a leave of absence.
- **Return to Learn** helps returning students navigate the re-enrollment process, understand the value of their return to school, and successfully reach their educational goals. We have staff dedicated to providing personalized assistance for each returning student.
- **MSU 101** is offered several times each semester with the purpose of providing students with the tools they need to succeed at MSU.

## Office of Financial Education

152 Strand Union

994-4388

**www.montana.edu/financialeducation**

The Office of Financial Education provides resources to MSU students and alumni to help them gain financial independence and learn techniques to achieve their life goals. We educate and support our students to ensure that they can manage debt and develop sound budgeting skills through one-on-one financial coaching, workshops and events, and informative resources.

**Counseling & Psychological Services**

211 Swingle Hall (above Student Health)

994-4531

**www.montana.edu/wwwcc**

Counseling & Psychological Services provides free, confidential counseling to eligible summer session students. Limited services are provided on an appointment-only basis. For questions about eligibility or to schedule an appointment, please call 994-4531.

**ASMSU Day Care Preschool**

Louise Shunk Day Care/Community Center

1295 West Garfield St.

994-4370

**www.montana.edu/wwwasmsu/daycare.html**

A Day Care Preschool provided by ASMSU and the University is available in the family housing area. Children ages 2 ½ until entrance into kindergarten of MSU students, staff and faculty are eligible. Children do not have to be toilet trained. The Day Care Preschool is open during Summer Session and the academic year.

The Day Care Preschool is an NAEYC accredited program.

Information pamphlets and applications are available at the Preschool or in Room 221 SUB.

**Disability, Re-Entry and Veteran Services**

180 Strand Union

994-2824

TTY: 994-6701

**www.montana.edu/drv**

- **Disabled Student Services** - This program provides services for students with disabilities. Students desiring accommodations for a disability must request services through Disabled Student Services.
- **Re-entry Student Services** - Non-traditional-age students (25 and over) can find direction, support, and assistance in this office.
- **Veteran Support Center/Office of Veteran Services** - (185 Strand Union, 994-3661) The center is dedicated to a variety of activities for MSU's student veterans, along with managing GI Bill benefits for all qualified veterans, dependents, and Guard/Reserves.

**Financial Aid Services**

183 Strand Union

994-2845

**www.montana.edu/wwwfa**

To assist students in financing a college education, the Office of Financial Aid Services administers loan, grant, scholarship and work study programs from federal, state, university and private sources.

In order to apply for financial assistance for the summer session, you must complete

1. a 2015-2016 Free Application for Federal Student Aid (FAFSA)

2. a Summer Supplemental Application Form

Your completed FAFSA must be received by the Federal Processor no later than June 30, 2016. **This is an absolute deadline.** Summer Supplemental Forms may be obtained at the Office of Financial Aid Services or online at [www.montana.edu/wwwfa](http://www.montana.edu/wwwfa).

The priority date for summer financial assistance is March 31, 2016. Your summer financial aid application will be reviewed only if information from your 2014-2015 FAFSA is available.

**The last day to apply for summer aid is June 30, 2016. Applications or requests for summer term financial aid will not be accepted after that date.**

**Hosaeus Fitness Center/Recreational Sports & Fitness**

994-5000

**www.montana.edu/getfit**

The Hosaeus Fitness Center is available to students taking seven or more credits (membership is paid through University fees). Students taking six credits or less may 'elect' to use the gym by paying the fee for membership at the Cashier's Window on the first floor of Montana Hall.

Summer campus interns, student spouses, and University faculty and staff may buy memberships directly from the Rec Sports Office, Rm. 120.

**Summer Building Hours for Hosaeus PE Complex**

- Monday-Friday, 6a.m.-8p.m.
- Saturday (beginning in May) 9a.m.-1p.m.
- Closed Sunday
- Closed Graduation weekend, Memorial Day weekend, and 4th of July weekend

**Pool Hours**

- Lap Swim, Monday-Friday, 11a.m.-1p.m., Tues. and Thurs. 6:30a.m.-7:30a.m.
- Lap/Open Swim, Monday-Friday, 4-6:30p.m.; Saturday, 10a.m.-12 noon
- Sunday closed

**Facility Features**

- 3 Full Gyms/6 Courts
- 25-Yard/8-Lane Pool
- Weight Area
- 20-ft. Climbing Wall
- Martial Arts Room
- 2 Air-Conditioned Group Fit Rooms
- 75+ Pieces of Cardio Equipment
- 2 Indoor Tennis Courts
- 9 Racquetball Courts w/ Handicap Access
- 1 Squash Court
- Indoor Running Track
- Men's & Women's Sauna
- Locker and Shower Facilities
- Sustainable Energy Effort Treadmills and Ellipticals

**Rec Sports Equipment Room (994-5500)**

- Monday-Friday, 7a.m.-8p.m.
- Equipment check-out

- Court reservations
- Towel service

### Services

- Tours
- Fitness equipment orientation
- Group fitness classes
- Personal training
- Instructional programs
- Massage
- Workshops
- Children's programs

### Website & Facebook

- Please check our website for the latest information on classes and building hours: [www.montana.edu/getfit](http://www.montana.edu/getfit)
- Find us on Facebook! [www.facebook.com/MSURecSports](http://www.facebook.com/MSURecSports) (<http://www.facebook.com/MSURecSports>)

### Check out our App

- Download our free rec app. Up-to-date information on building and pool hours, class schedules, news and programs.

## International Programs Office

**Fourth Floor Culbertson**  
**994-4031**

The Office of International Programs is the focal point for international activities on campus. The office offers services to foreign students and scholars as well as to U.S. students interested in studying abroad. The International Opportunities Resource Center, within the Office of International Programs, has a wide variety of resource materials to assist students with study, travel and work opportunities around the world.

During the summer, several short-term study abroad programs are offered.

For more information about specific opportunities call (406) 994-5719.

Incoming short-term programs involving students and faculty from many foreign countries are also held on the MSU campus during the summer months. Some of these programs include opportunities for local families to host international visitors. For more information about hosting, please call (406) 994-7602.

The A.C.E. Language Institute at MSU works closely with the Office of International Programs to provide professional English-as-a-Second-Language classes to international students throughout the year, including summer. The Institute's staff offers orientation and on-going student services to new arrivals.

For more information on course schedules call the Institute at (406) 585-9832.

## Outdoor Recreation Program

**West Lincoln St. (adjacent to the Roskie Hall parking lot and intramural fields)**  
**994-3621**  
**[www.montana.edu/outdoorrecreation](http://www.montana.edu/outdoorrecreation)**

The ASMSU Outdoor Recreation Program offers equipment rentals, group outings, resource area, bicycle and ski workshop, and special events. MSU students, faculty, staff, families and affiliates are eligible to use the services.

## Equipment Rental

Tents, sleeping bags, backpacks, rafts, canoes, mountain bikes, stoves, lanterns, and other assorted gear are available. Rates are based on half-day, daily, weekend, or extended rental periods.

## Group Outings

A variety of trips are offered that accommodate many interests and skill levels. Activities include hiking, backpacking, camping, rafting, canoeing, kayak touring and other pursuits. Destinations range from local recreation areas to Yellowstone, Grand Teton, and Glacier national parks. Nominal fees are charged to defray costs of transportation, group equipment and other organizational expenses.

## Resource Area

Maps, trail guides, magazines and other informational materials are available for individuals interested in planning their own personal adventure.

## Bicycle Workshop

The Bicycle Workshop provides the opportunity for individuals to maintain and repair personal equipment. Options include:

- Do It Yourself – free use of work area and tools
- Technical Assistance – an attendant is on duty periodically
- Drop-Off Service – available for individuals who prefer to have a technician do the work (inquire for rates). A limited supply of parts is also stocked for resale.

Further information about the Outdoor Recreation Center and its services may be obtained by calling 994-3621 or by visiting the website listed above.

## Renne Library

**994-3171**  
**[www.lib.montana.edu](http://www.lib.montana.edu)**

Conveniently located in the center of campus, Renne Library has a full range of library collections and services for students and faculty. Knowledgeable and friendly faculty librarians and library staff provide assistance using the collections, access to databases world wide, and instruction for individuals and groups. The MSU Libraries' collections support teaching, learning and research at MSU, with particular emphasis in the fields of agriculture, science, health and technology.

A wealth of information is available around the clock via the library Web page ([www.lib.montana.edu](http://www.lib.montana.edu)), including the online catalog, electronic indexes and many full-text e-journals and e-books. Personalized one-on-one research assistance is available to students on a drop-in basis at the reference desk, or online via email or chat. Moreover, the Libraries offer the Research Assistance Program, or RAP: students may make an appointment for a consultation with a reference librarian who will thoroughly explore research options relating to a specific assignment or class.

Renne Library is open to the public.

## Strand Union Building

**994-3082**  
**[www.montana.edu/sub](http://www.montana.edu/sub)**

The Strand Union Building (SUB) is the center of campus activity at MSU. The SUB provides daily services, amenities, and out-of-classroom opportunities for informal interaction among members of the college community. Through student government, organizations, and employment, the SUB provides a cultural, social, and recreational environment to complement classroom and study experiences.



Focused on serving the needs of students, staff, faculty and University guests, the Strand Union has three student-managed, student-staffed service centers:

- **“ASK US” Information Center/Ticket Office**—campus information, lost and found, ticket sales, stamps, mail drop, and fax. Visit [www.montana.edu/askus](http://www.montana.edu/askus) for MSU Events & Schedules, MSU Info and Directories, Community Info, and Other Helpful Sites.
- **CopyCats**—convenient copy service, color copies, and digital output (from CD or flash), postal, laminating and binding services, and class notes.
- **Recreation Center**—bowling, billiards, foosball, shuffleboard, videos, ESPN, PS3, and snacks. Open Summer Session Mon.-Thurs., 12:00 noon-10:00 p.m.; Fri., 12:00 noon-5:00 p.m.

Additional services in the Strand Union include:

- **Full service banking**
- **Automated banking ATMs**
- **Federal Express drop box**
- **Coin-op copier**
- **Meeting rooms (seating from 10-1,700)**
- **Public access computers with printing**
- **Student and TV Lounges**
- **MSU Cat Card**—University ID, on-campus debit card, access to halls and Rec Sports Center, and student printing
- **MSU Bookstore**—textbooks, MSU merchandise, gift items, computer and art supplies
- **Strand Union Food Services:**
  - **Catering**—University-wide coffee breaks, buffet and served meals
  - **SRO Espresso**—‘Standing Room Only’ espresso bar
  - **Sweet Shop/Freshēns**—homemade cookies, fudge, candy, popcorn, smoothies, frozen yogurt and ice cream
  - **Union Market**—breakfast and lunch entrees, soup, salad bar, FatCat bakery items, Asian and Mexican food

## **Student Health Service Swingle Health Center**

994-2311

[www.montana.edu/health](http://www.montana.edu/health)

Summer Session students may obtain medical care and treatment at the Swingle Health Service located on the east side of the Strand Union.

Available services during the summer include treatment of illnesses and injuries, dental services, pharmacy, laboratory services, x-ray, nutrition services and assistance with health insurance needs.

During the summer while school is in session the Student Health Service is open Monday through Friday from 9:00 to 11:30 a.m. and from 1:00 to 4:00 p.m. Between semesters, the Student Health Service is open Monday through Friday from 8:00 to 11:30 a.m.

Summer Session students who register for seven or more credit hours are required to pay the health fee and are thus eligible to use the Health Service during the time period for which they are enrolled. Students taking fewer than seven credit hours have the option of paying the health fee.

For immunization requirements and forms, please consult the Student Health Service Web site listed above.

# Vehicle Registration

## University Police Department

Roy Huffman Building  
Corner of S. 7th & Kagy  
994-2121

[www.montana.edu/wwwmsupd](http://www.montana.edu/wwwmsupd)

All students, faculty, staff, and visitors must register all motor vehicles they park on campus and university-controlled streets. You should register your vehicle immediately upon your arrival on campus and obtain a copy of the vehicle regulations by going online at: <http://www.montana.edu/parking/buyingapermit.html> and following the prompts to buy a permit. You can also enter the site by logging in to your MyInfo account and selecting the Parking tab. Visitors may purchase day permits at the Visitor Information Booth at S. 7th & Grant St. or at the University Police Department.

## Vehicle Registration Fees for Summer Session

(applicable from May 1 to Aug. 31, 2016)

SB lots	\$177.00
E lots	\$177.00
F lot	\$72.00
Motorcycles	\$70.00

Hang tags are available for \$4.00 per day and may be used in any campus lot except gold signed reserved parking.

## Bicycles

Bicycle permits are free and registration is recommended for any bicycle on campus to aid in the return of stolen or lost bicycles.

Bicycle Restrictions:

- Are not allowed in buildings
- May not be chained to trees, railings, signs, etc.
- May not be parked where they are a hazard to pedestrians

Bicycles in violation of these restrictions will be impounded and owners will be cited by the University Police.

# Important University Policies

## Non-Discrimination Policy and Discrimination Grievance Procedures

Montana State University is committed to providing a working and learning environment free from discrimination. Discrimination or harassment based upon race, color, religion, national origin, ethnicity, creed, service in the uniformed services (as defined in state and federal law), veteran status, gender, age, political beliefs, marital or family status, pregnancy, physical or mental disability, genetic information, gender identity, gender expression, or sexual orientation or preference is prohibited.

The University is committed to taking positive and effective actions in the recruitment, hiring, training, and promotion of persons in all classes of employment to help overcome the present effects of past discrimination and increase opportunities for qualified women and minorities, persons with disabilities, and covered veterans. In addition, Montana State University assumes particular responsibility for providing opportunities for education and training for the state's Native American peoples in the various disciplines and professions that are characteristic of this land-grant university.

Any student, employee, applicant for employment or admission, participant in University activities or other person who believes he or she was subject to discrimination in violation of the policies of the university may file a complaint under the university Non-Discrimination Policy and Grievance Procedures. Refer to the Office of Institutional Equity (OIE) website to submit a complaint online [www.montana.edu/equity/discrimination/](http://www.montana.edu/equity/discrimination/) or contact OIE at (406) 994-2042, Hamilton Hall Room 118.

Employees or students who commit and/or supervisors who knowingly condone or fail to report incidents of discrimination are subject to disciplinary actions when instances of discrimination are identified and confirmed. Knowingly filing false complaints of discrimination or knowingly providing false testimony may likewise result in disciplinary or corrective action when instances of such conduct are identified and confirmed. Retaliation against persons who file complaints or serve as witnesses is also a violation of laws prohibiting discrimination and will lead to appropriate disciplinary action against offenders when instances of such conduct are identified and confirmed.

Montana State University affords any student, employee, applicant for employment or admission, participant in University activities or other person who believes he or she was discriminated against by the University, the right to file a grievance on grounds of discrimination. As a condition of their employment and enrollment, employees and students are expected to cooperate in investigations of complaints of discrimination. Failure to cooperate will result in disciplinary action.

## Sexual Harassment

Sexual harassment is unwelcome sexual advances, requests for sexual favors, sexual misconduct, and other physical or verbal conduct of a sexual nature, when:

- Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, education, living environment or participation in a university activity;
- Submission to or rejection of such conduct by and individual is used as the basis for or a factor in decisions affecting that individual's employment, education, living environment, or participation in a University activity;
- Such conduct has the purpose or effect of unreasonably interfering with an individual's employment or educational performance or creating an intimidating, hostile, offensive, or abusive environment for that individual's employment, education, living environment, or participation in a University activity.
- Such conduct is so pervasive or severe that it has the purpose or effect of unreasonably interfering with an individual's work or academic performance or limiting participation in University programs;
- The intent or effect of such pervasive or severe conduct is to create an intimidating, hostile, or offensive academic or work environment

Whether conduct constitutes sexual harassment is determined based upon both a subjective and objective standard, as well as consideration of the totality of the particular circumstances, including the nature, frequency, intensity, location, context, and duration of the behavior. Although repeated incidents generally create a stronger claim of sexual harassment, a serious incident, even if isolated, can be sufficient.

## Title IX of Education Amendments of 1972 (Title IX)

Title IX and its implementing regulation, at 34 C.F.R. § 106.31 (a), provide that no person shall on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any academic, extracurricular, research, occupational training, or other education program or activity operated by the University.

Title IX of the Education Amendments of 1972 ("Title IX") and the Montana Human Rights Act prohibit discrimination on the basis of sex in education programs and activities. Discrimination based upon sex can include sexual harassment or sexual violence, such as sexual intercourse without consent, sexual assault, and sexual coercion. Title IX also prohibits gender-based harassment, which may include acts of verbal, nonverbal, or physical aggression, intimidation, or hostility based on sex or sex-stereotyping, even if those acts do not involve conduct of a sexual nature.

### The Title IX Coordinator for Montana State University-Bozeman is:

Pamela Merrell, JD  
Interim Director/Title IX Coordinator – Office of Institutional Equity  
Montana State University  
P.O. Box 172430  
Bozeman, MT 59717-2430

Tel: (406) 994-2042  
Fax: (406) 994-7999  
E-mail: [oe@montana.edu](mailto:oe@montana.edu)  
Location: 118 Hamilton Hall  
<http://www.montana.edu/titleix/>

Any student or visitor with questions or concerns about sex discrimination or sexual harassment or who believes that he or she has been the victim of sex discrimination or sexual harassment may contact the Title IX Coordinator for assistance. The Title IX Coordinator is responsible for receiving and conducting the administrative investigation of reports of sexual harassment and assault filed on campus by students and employees, and is available to discuss options, explain university policies and procedures, and provide education on relevant issues. To submit a complaint online, <http://www.montana.edu/titleix/> or contact the Title IX Coordinator in the Office of Institutional Equity located at 118 Hamilton Hall, (406) 994-2042.

## Consensual Relationships

[http://www2.montana.edu/policy/affirmative\\_action/aa100.html#180.00\\_Relationships](http://www2.montana.edu/policy/affirmative_action/aa100.html#180.00_Relationships)

A consensual romantic relationship in which one party is in a position to evaluate the work of the other is a potential conflict of interest. When such a potential conflict of interest results between employees or an employee and a student, the employee shall promptly disclose the potential conflict of interest to his or her supervisor. The supervisor and the employee shall take steps to ensure that there is no conflict of interest.

Email: [oi@montana.edu](mailto:oi@montana.edu)  
[www.montana.edu/equity/](http://www.montana.edu/equity/)

Procedures for filing complaints of discrimination, harassment or violations of Title IX are available electronically at: [http://www2.montana.edu/policy/affirmative\\_action/](http://www2.montana.edu/policy/affirmative_action/) or in print from the address above.

## Non-Discrimination Policy Based on Disability

The University is committed to eliminating disability-based discrimination against qualified persons with disabilities and to making appropriate reasonable accommodation for any known disability that interferes with an applicant's ability to compete in a selection process, an employee's ability to perform the essential functions of a job, a student's ability to meet the essential requirements of an academic program, or a person's ability to benefit from a University service or participate in a University sponsored or hosted event.

All applicants, employees, students or participants, including those with disabilities, are expected to be able to perform the essential functions of the position or program, with or without reasonable accommodation.

It is the responsibility of the applicant, employee, student or participant with a disability to inform the appropriate person, as indicated below, that an accommodation is needed:

1. **To request accommodation in a job application or interview process, contact:** The hiring authority or chair of the search committee of the search, as indicated on the vacancy announcement or contact Human Resources, (406) 994-3651. [www.montana.edu/hr/](http://www.montana.edu/hr/)
2. **To request accommodation in employment, including concerns about job duties, contact:** The direct supervisor or the Office of Human Resources, (406) 994-3651 or [www.montana.edu/hr/](http://www.montana.edu/hr/)
3. **To request accommodation when applying for admission to the University, contact:** The Director of Admissions, (406) 994-2452, if applying for undergraduate admission; or the Dean of the Graduate School, (406) 994-4145, if applying for graduate admission.
4. **To request accommodation when applying for housing or to request housing accommodation, contact:** Residence Life and University Food Service, (406) 994-2661, if applying for housing in the residence halls; or Family Housing, (406) 994-3730, if applying for family or graduate housing.
5. **To request accommodation related to an academic program or requirement, class, or other educational opportunity or activity, contact:**  
 The Office of Disability, Re-Entry and Veteran's Services  
 Room 155  
 Strand Union Building  
 (406) 994-2824.
6. **To request public accommodation or accommodation to participate in a University sponsored or hosted event, contact:** The Event Sponsor or the University Compliance Officer, (406) 994-2042.

## University Compliance Officer

The University Compliance Officer and the office responsible for the University's compliance efforts is:

### Director of the Office of Institutional Equity

Montana State University  
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# Financial Aid

## Office of Financial Aid Services

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www.montana.edu/wwwfa

## Summer Session Financial Aid

Applying for Summer Session 2016 financial aid requires two separate application processes:

1. You must complete a 2015-2016 Free Application for Federal Student Aid (FAFSA).
2. You must complete a MSU Summer Supplemental Application.

## Completing the Free Application for Federal Student Aid (FAFSA)

Your completed 2015-2016 FAFSA must be received by the federal processor no later than June 30, 2016. **This is an absolute deadline.** Applications received by the processor after June 30 will not be considered for summer funds. If you applied for federal financial assistance for Fall 2015 or Spring 2016 semesters, you have already completed a 2015-2016 FAFSA.

Complete the FAFSA electronically at [www.fafsa.ed.gov](http://www.fafsa.ed.gov) (<http://www.fafsa.ed.gov>).

## Completing the MSU Summer Supplemental Application

If your FAFSA was received by the federal processor by June 30, 2016, you may apply for summer aid by completing the MSU Summer Supplemental Application. The priority date for summer financial assistance is March 31, 2016. Your Summer Supplemental Application will be reviewed only if information from your 2015-2016 FAFSA is available. The last day to apply for summer aid is June 30, 2016. Requests for summer term financial aid will not be accepted after this date.

Copies of the Summer Supplemental Application are available by clicking on the Forms link on the Financial Aid Services Web site at [www.montana.edu/wwwfa](http://www.montana.edu/wwwfa).

## Minimum Credit Requirements for Summer Financial Aid

6 credits	Required to receive any financial aid
6 credits	Required to receive 100% of your loan and 50% of your grant
12 credits	Required to receive 100% of all types of financial aid

## Student Loans

Eligibility for a student loan is dependent upon the cost of summer attendance and the amount borrowed during the academic year. You must be enrolled for a minimum of 6 credits to receive loan funds. Loan proceeds will be applied to your University bill.

## Confirming Your Bill

You must confirm your bill (pay fees) for Summer Session with the Student Accounts Office by the published deadline. If you fail to do this, it will be assumed you are not attending Summer Session. This will result in both your classes and your financial aid being cancelled. Reinstatement of classes or financial aid will be based on availability at the time reinstatement is requested.

## Refund Checks

Your University bill will reflect charges due for the semester. Provided you meet all of the qualifications to receive financial aid funds, any scholarship, grant, or loan funds awarded to you will be automatically credited to your University student account to be applied to the amount due for the semester.

If your financial aid exceeds your University charges you will be refunded the difference by the Student Accounts Office provided you meet all eligibility requirements. Refunds are generated by the Student Accounts Office as soon as possible after the start of summer classes.

The Student Accounts Office will release a refund when the following requirements have been met:

1. You have completed and returned all required financial aid documents and loan promissory notes to the Office of Financial Aid Services.
2. You have confirmed your bill at the Student Accounts Office.

For questions regarding the amount and timing of your refund, contact:

Student Accounts Office  
Room 102 Montana Hall  
(406) 994-1991

## Satisfactory Academic Progress

You must meet the Satisfactory Academic Progress Policy standards in order to be eligible for financial assistance. This policy is published and available at the Office of Financial Aid Services or online at [www.montana.edu/wwwfa/](http://www.montana.edu/wwwfa/).

## Short Term Loans

This is a loan which permits a student, who may be experiencing temporary difficulties, to borrow small sums of money for a short period of time. No collateral is required for a short-term loan although the student must identify a reliable source of repayment and pay a \$30 loan application fee. In addition, a student must have a cumulative grade-point average of 2.0 or better at MSU, be enrolled for at least six credits as a degree-seeking student, and have a satisfactory repayment record with respect to any previous loan(s) received.

The University reserves the right to reject or decline any application, to determine the amount and a date of repayment for any loan approved, and to require a guarantor. Applications and other information regarding the short-term loan program may be obtained from the Office of Financial Aid Services. Allow a minimum of two working days to process a short-term loan application.

## Book Loans

This loan is designed to assist students with money to buy books at the MSU Bookstore before aid refunds are distributed. The Office of Aid Services must verify that each student requesting a book loan has adequate funds, after University charges are paid, to cover the costs of the loan. Funds borrowed are deposited to the student's CatCard no earlier than 10 days prior to the beginning of the term. When the student's financial aid is disbursed, it is applied to the book loan as well as to a non-refundable loan processing fee of \$30.00. This loan may be requested from the Office of Financial Aid Services.

## Financial Aid for Fall/Spring Semesters 2016-2017

You must complete the 2016-2017 Free Application for Federal Student Aid (FAFSA) in order to be considered for financial assistance for 2016 Fall Semester and/or 2017 Spring Semester.

The following dates apply:

**March 1, 2016**      **Priority filing date** for 2016-2017 FAFSA.

**November 15, 2016**      **Final filing date** for 2016-2017 FAFSA for 2016 Fall Semester aid

**March 31, 2016**      **Final filing date** for 2016-2017 FAFSA for 2017 Spring Semester aid

### Student Financial Aid Status

Financial aid status of individual students is available online through MyInfo. You can check your overall financial aid status including outstanding requirements and holds, Satisfactory Academic Progress, individual cost of attendance, award information, and account information regarding charges and payments from the Student Accounts Office. The Internet address is [www.montana.edu](http://www.montana.edu) (MSU Home Page). Links under MyInfo will take you to the online student information system.

### General Financial Aid Information

General information pertaining to financial aid may be obtained online at [www.montana.edu/wwwfa](http://www.montana.edu/wwwfa) or by calling Financial Aid Services at (406) 994-2845.

### Financial Aid Deadlines for Summer Session 2016

**March 31, 2016**      **Priority date** to submit MSU Summer Supplemental Application Form

**June 30, 2016**      **Final date** to submit MSU Summer Supplemental Application Form

**June 30, 2016**      **Final date** for 2015-2016 FAFSA to arrive at the federal processor

Applications for Summer Session financial aid will not be accepted after the final date.

# Summer Offerings

Summer Session 2016 brings a variety of credit and non-credit opportunities to a diverse audience, including continuing MSU students, summer-only students, children, and adult learners.

- Education for Educators (p. 43) Education for Educators consists of Master's Degree Programs and Non-Degree and Certification Programs geared toward those in the education field.
- General Engineering Courses (p. 43) Each of the listed General Engineering courses will be offered this summer with both an on-campus section and an online section.
- Native American Studies Graduate Certificate (p. 43) Montana State University's graduate certificate in Native American Studies is the only program of its type in the world. Courses cover current and historical aspects of Native American art, law, culture and contemporary issues, and students will gain a deeper insight into the American Indians of Montana, the region and the nation.
- Preliminary Course Listing (p. 32) The following preliminary course listing was compiled in January, 2016. Since that time, some courses may have been added and other courses cancelled.
- Schedule of Courses (p. 30) Find information on course numbering and course and building abbreviations used across campus.
- Summer Core Courses (p. 37) The mission of MSU's core curriculum is to enhance students' use of multiple perspectives in making informed critical and ethical judgments in their personal, public and professional lives through inquiry and research experiences.
- Summer Online Courses (p. 39) Online courses offer a flexible alternative to attending the traditional classroom by delivering a variety of educational resources via the Internet. Whether you're working a summer job, leaving Bozeman for a few months, or just trying to fit an extra class into your schedule, you can still begin or continue your MSU education by enrolling in one or more online courses.
- Summer Science and Mathematics Courses for Pre-Med (p. 41) Summer Session 2016 offers the following series of science and mathematics courses designed to meet the special academic needs of students who plan to apply to medical, dental, or other health professional schools. The scheduling for this series of courses has been developed to allow students to enroll in one of the Chemistry courses and one of the Physics, Mathematics, or Statistics courses during each of MSU's two six-week summer sessions, thus enabling students to earn up to 16 science and mathematics credits in only 12 weeks.
- Sustainable Food and Bioenergy Systems (p. 43) The Sustainable Food and Bioenergy Systems (SFBS) B.S. degree program is an exciting, innovative interdisciplinary program from Montana State University that promotes the sustainable production, distribution, and consumption of food and bioenergy. You will experience collaborative learning, directed coursework, and hands-on training.
- Uniquely Montana (p. 36) A wide variety of special courses is available at MSU during Summer Session 2016, and we've highlighted a few of them here. Many of these courses are offered only during the summer and take advantage of southwestern Montana's natural environment; others provide professional development opportunities for teachers and coaches; still others offer unique experiences in archaeology. There's a little something for everyone—including selections in art, music, languages, theatre, geology, ecology, and gardening.

## Schedule of Courses

Following (p. 32) is the Summer Session 2016 preliminary course listing as of January 2016.

Please refer to the Summer Session class schedule online for the most current information. **The schedule will be mostly complete by Jan. 31, 2016.** The schedule will include detailed course information regarding sessions of offerings, meeting days, times and locations, instructors, mode of instruction (on-campus or online), special fees, and class enrollment numbers.

**The 2016 Summer Session Schedule of Classes may be accessed online as follows:**

1. Go to Web site: [www.montana.edu](http://www.montana.edu) (MSU home page)
2. Click on: MyInfo (bottom left-hand corner of page), Schedule of Classes
3. Select term: 2016 Summer Session
4. Select subject: Highlight one or more consecutive subject areas, or click and drag to highlight all subject areas
5. Click on: Search Class (bottom left-hand corner of page)

## Course Offering Contingencies

Montana State University strives to offer all courses listed in the online class schedule.

The schedule will contain a few new courses offered on a trial basis. A notation stating a minimum enrollment number will be included with each; if this number is not reached, the course may be cancelled. Also, in the rare case when an instructor is not available due to a last minute emergency, courses may be cancelled.

Some courses are offered on a to-be-arranged basis, in which case class times, days, location and instructor will not appear in the course schedule. Check with the offering department for details.

For course descriptions, please consult the MSU Course Bulletin or visit the Web site at [www.montana.edu/wwwcat/courses/courses2.html](http://www.montana.edu/wwwcat/courses/courses2.html).

## Numbering System

001-099	Courses below college level; no college credit given
100-199	Freshman - Lower Division
200-299	Sophomore - Lower Division
300-399	Junior - Upper Division
400-499	Senior - Upper Division
500-599	Graduate Courses
600-699	Graduate Courses

## Core Courses

Core courses are designated by a letter following the course number (e.g., WRIT 101W). The following letters are used to specify the core groups:

US	University Seminar
W	College Writing
Q	Quantitative Reasoning
D	Diversity
CS	Contemporary Issues in Science
IA	Arts Inquiry or
RA	Arts Research
IH	Humanities Inquiry or
RH	Humanities Research
IN	Natural Science Inquiry or
RN	Natural Science Research
IS	Social Science Inquiry or
RS	Social Science Research

## R Additional Research and Creativer Experience Courses

### Classification of Courses in the Course Bulletin

In the second line of each course description in the MSU Course Bulletin, following the number of credits for the course, there appears a course classification designation which indicates the mode of instruction for that course. In some cases two classifications are listed along with the number of credits in each.

Following is an explanation of course classifications.

**LEC—Lecture:** Presentation of course material by the instructor, utilizing the lecture method.

**LAB—Laboratory:** Instructing and supervising students in laboratory investigations.

**STU—Studio:** Instructing and supervising students in studio investigations.

**RCT/DIS—Recitation-Discussion:** Presentation of course materials designed to involve students in recitation and/or discussion.

**SEM—Seminar:** Students share, with the instructor, responsibility for preparation and presentation of course material.

**IND—Independent Study:** Directed study and/or research on an individual basis, under supervision of instructor.

### Graduate Credit

Courses which may be taken for graduate credit are designated by a 500 or 600 number.

### Uniform Course Numbers

Uniform numbers are used in all departments.

294, 394, 494, 500 and 594	Seminar
292, 492, 570 and 592	Individual Problems (individual projects)
291, 491, 580 and 591	Special Topics (group or class project)
290R	Undergraduate Research
475	Undergraduate Projects
490R	Undergraduate Scholars Program
298, 498, 576 and 598	Internship
575	Graduate Research Paper (profesional paper/project)
588	Professional Development
589	Graduate Consultation
590	Master's Thesis
689	Reading and Research
690	Doctoral Thesis

These courses may be repeated for credit. Specific titles of Special Topics courses are listed in the Schedule of Classes, on the Class Rolls and on the student's permanent record.

Some courses such as Special Topics, Individual Problems and Internship are offered for varying amounts of credit, e.g., 1-5. A maximum number of credits is also imposed, e.g., *Maximum 6 cr.* A student may repeat such courses to earn the maximum number of credits by registering for two or

more projects with credits for each project totaling the maximum allowed. Credits earned beyond the maximum cannot be applied toward graduation.

### Special Topics & Individual Problems Courses

The maximum number of credits allowed toward graduation of 291 and 491 courses in each rubric is 12, and the maximum number of 492 credits in each rubric is six. Some departments have established lower limits than these, and the student is responsible for checking the specific course listings to see that he or she does not exceed the allowable number of credits. The maximum number of 570 credits applicable to a graduate degree depends upon the degree. No 492 credits are applicable to a graduate degree.

### Undergraduate Course Prerequisites

Courses beyond the freshman year usually have "prerequisites." This means that certain lower-level courses must be taken before the student may register for the advanced course.

The prerequisite for undergraduate courses may be "consent of instructor." The student must secure the permission of the instructor of the course before registering for it. "Consent of instructor" is usually required for courses in which there is limited laboratory space and/or equipment or in which specific skills are required.

### Graduate Course Prerequisites

Courses at the 500 and 600 levels may be taken only by qualified students. Unless otherwise stated under course prerequisites, graduate level courses are open only to:

1. Students with graduate standing (post-baccalaureate students admitted to The Graduate School, enrolled in non-degree status or second bachelor's degree candidates)
2. Seniors with a cumulative grade point average of 3.25 or higher
3. Other seniors who have a petition approved by the head of the department offering the course, the head of the student's major department, and the Dean of the Graduate School.

Some courses are limited to students with graduate standing or certain levels of graduate standing. These specific conditions are indicated within the course prerequisite or description statements. Students below senior standing are not eligible to take graduate-level courses.

### Session Dates

First 6-week session	May 16 - June 24
Second 6-week session	June 27 - August 5
12-week session	May 16 - August 5
Intersession	June 13 - August 5*
Education Intersession	June 13 - July 22

\* Intersession is designed for courses of varying length

### Abbreviations

The following abbreviations are used in the Schedule of Courses:

M	Monday
T	Tuesday
W	Wednesday
R	Thursday
F	Friday
S	Saturday
U	Sunday



## Building Abbreviations

<b>ABB</b>	Animal BioScience Bldg.
<b>AJM</b>	Arthur J. M. Johnson Hall
<b>BFH</b>	Breeden Fieldhouse
<b>BOZ</b>	Bozeman (Nursing, Deaconess Hospital)
<b>BOZC</b>	Bozeman Convalescent Center
<b>CHBCH</b>	Chemistry/Biochemistry Bldg.
<b>CHMN</b>	Chemistry Modular North
<b>CHMS</b>	Chemistry Modular South
<b>CHVR</b>	Cheever Hall
<b>COBH</b>	Cobleigh Hall
<b>EPS</b>	Engineering Physical Science
<b>FCMO</b>	Faculty Court Modular
<b>GH</b>	Gaines Hall
<b>HAM</b>	Hamilton Hall
<b>HANH</b>	Hannon Hall
<b>HAYN</b>	Haynes Hall
<b>HELN</b>	Helena
<b>HH</b>	Herrick Hall
<b>HOWH</b>	Howard Hall
<b>JABS</b>	Jake Jabs Hall
<b>JONH</b>	Leon H. Johnson Hall
<b>LEWH</b>	Lewis Hall
<b>LINH</b>	Linfield Hall
<b>MARL</b>	Marsh Research Laboratory
<b>MCH</b>	McCall Hall
<b>MH</b>	Montana Hall
<b>MSP</b>	Miller Stock Pavilion
<b>NS</b>	Nursery School
<b>PBS</b>	Plant BioScience Bldg.
<b>PEC</b>	Physical Education Complex
<b>PLGR</b>	Plant Growth Center
<b>REID</b>	Reid Hall
<b>RLIB</b>	Renne Library
<b>ROBH</b>	Roberts Hall
<b>ROM</b>	Romney Gymnasium
<b>SHC</b>	Student Health Center
<b>SHER</b>	Sherrick Hall
<b>SUB</b>	Strand Union Bldg.
<b>TAYH</b>	Taylor Hall
<b>TCE</b>	Temporary Classroom East
<b>TCW</b>	Temporary Classroom West
<b>THTR</b>	Theater, Strand Union
<b>TRAP</b>	Traphagen Hall
<b>VCB</b>	Visual Communications
<b>WIL</b>	Wilson Hall

## Preliminary Course Listing

### Summer Session 2016 Preliminary Course Listing (as of January, 2016)

#### Go online for the most current information.

The following preliminary course listing was compiled in January, 2016.

Since that time, some courses may have been added and other courses cancelled. Please refer to the Summer Session Class Schedule online at

[www.montana.edu/students](http://www.montana.edu/students) (under "Academic Info") for the most current information as well as class dates, times, locations, and instructors. **The schedule will be mostly complete by January 31, 2016.**

Enrollment in the courses listed below requires that students be admitted to MSU. Registration will take place through the MSU Registrar's Office.

Individual problems, internships, undergraduate research, etc., are not included in this preliminary listing. Please contact individual departments for more information about these opportunities.

#### Accounting

ACTG 201	Principles of Financial Acct <sup>1</sup>	3
ACTG 202	Principles of Managerial Accounting <sup>2</sup>	3
ACTG 223	Principles of Accounting II <sup>2</sup>	3
ACTG 524	International Accounting <sup>4</sup>	3

#### Activities - General

ACT 110	Beginning Weight Training <sup>1,2</sup>	1
ACT 129	Circuit Training <sup>1</sup>	1
ACT 150	Beginning Yoga <sup>1</sup>	1

#### Agricultural Education

AGED 140US	Leadership Dev For Agriculture (blended) <sup>1</sup>	3
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#### American Studies

AMST 101D	Introduction to American Studies (online) <sup>2</sup>	3
AMST 202RA	The Arts in America (on campus & online) <sup>1</sup>	3

#### Animal and Range Sciences

ARNR 529	Yellowstone Wildlife Habitat Ecology <sup>4</sup>	2
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#### Anthropology

ANTY 101D	Anthropology and the Human Experience (online) <sup>1</sup>	3
ANTY 252IS	Mysteries of the Past (online) <sup>1</sup>	3

#### Architecture

ARCH 121IA	Introduction to Design <sup>2</sup>	3
ARCH 151RA	Design Fundamentals I <sup>1</sup>	4
ARCH 152IA	Design Fundamentals II <sup>2</sup>	4
ARCH 253	Architectural Design I <sup>3</sup>	5
ARCH 254	Architectural Design II <sup>3</sup>	5
ARCH 355	Architectural Design III <sup>3</sup>	5
ARCH 356	Arch Design IV <sup>3</sup>	5
ARCH 414	Architectural Study Abroad <sup>3</sup>	9
ARCH 428	Foreign Study History <sup>3</sup>	3
ARCH 431	Sustainability in Architecture <sup>3</sup>	3
ARCH 450	Community Design Center <sup>3</sup>	5
ARCH 527	Architecture: Meaning & Place <sup>1</sup>	3
ARCH 543	Advanced Applied Design and Construction <sup>1</sup>	3
ARCH 551	Advanced Arch Studio <sup>3</sup>	6

#### Art - Art History

ARTH 201IA	Art of World Civilization II <sup>2</sup>	4
ARTH 310	Ancient Art Mesoamerica <sup>2</sup>	3

#### Art - Visual Arts

ARTZ 105RA	Visual Language - Drawing <sup>1</sup>	3
ARTZ 109RA	Visual Language: Comprehensive Foundation <sup>1</sup>	4
ARTZ 110RA	Visual Language: Ideation and Creativity <sup>2</sup>	4
ARTZ 221	Painting I <sup>3</sup>	4
ARTZ 291	Special Topics <sup>3</sup>	1-4

ARTZ 322	Intermediate Painting <sup>3</sup>	5	CSCI 111	Programming with Java I <sup>2</sup>	4
<b>Biochemistry</b>			CSCI 112	Programming with C I <sup>1</sup>	3
BCH 380	Biochemistry <sup>1</sup>	5	CSCI 132	Basic Data Structures and Algorithms <sup>1</sup>	4
<b>Biology</b>			CSCI 215CS	Social & Ethical Issues in CS <sup>1</sup>	3
BIOL 409	Advanced Human Torso Anatomy <sup>1</sup>	4	CSCI 232	Data Structures and Algorithms <sup>2</sup>	4
BIOL 591	Special Topics <sup>4</sup>	1	<b>Earth Systems<sup>1</sup></b>		
<b>Biology - Ecological</b>			ERTH 101IN	Earth System Sciences <sup>1</sup>	4
BIOE 416	Alpine Ecology <sup>2</sup>	3	<b>Economics</b>		
BIOE 421	Yellowstone Wildlife Ecology <sup>1</sup>	3	ECNS 202	Principles of Macroeconomics <sup>1</sup>	3
<b>Biology - General</b>			ECNS 204IS	Microeconomics <sup>2</sup>	3
BIOB 375	General Genetics <sup>1</sup>	3	Education		
BIOB 497	Educational Methods: Biology (Cellular and Neurobiology) <sup>1</sup>	2	EDU 330	Emergent Literacy (blended) <sup>4</sup>	3
BIOB 497	Educational Methods: Biology (Ecology) <sup>2</sup>	2	EDU 342	Managing the Learning Envir <sup>4</sup>	3
<b>Biology - Human</b>			EDU 370	Integrating Tech into Educ (online) <sup>4</sup>	2
BIOH 201	Human Anatomy and Physiology I <sup>3</sup>	5	EDU 397	Methods (K-8 Creative Arts) <sup>4</sup>	3
<b>Business - Finance</b>			EDU 397	Methods (K-8 Math) <sup>4</sup>	3
BFIN 322	Business Finance (online) <sup>1</sup>	3	EDU 408	Professional Issues: K-12 (online) <sup>3</sup>	2
<b>Business - General</b>			EDU 438	Ltrcy Asmnt, Diagnos and Instr <sup>4</sup>	3
BGEN 204	Business & Entrepreneurship Fundamentals <sup>1</sup>	3	EDU 602	Educational Statistics II <sup>3</sup>	3
BGEN 242D	Intro to Int'l Business (online) <sup>1</sup>	3	<b>Education, Curriculum and Instruction</b>		
BGEN 361	Principles of Business Law <sup>1</sup>	3	EDCI 501	Educational Statistics I <sup>4</sup>	3
<b>Business - Management</b>			EDCI 506	Applied Ed Rsch (blended) <sup>4</sup>	3
BMGT 205	Prof Business Communication (online) <sup>1</sup>	3	EDCI 531	Contemp Issues in Ed (online) <sup>4</sup>	3
BMGT 322	Operations Management <sup>1</sup>	3	EDCI 536	Construction of Curriculum (online) <sup>4</sup>	3
BMGT 335	Management and Organization (online) <sup>2</sup>	3	EDCI 542	Creative Processes in Education (online) <sup>4</sup>	3
<b>Business - Management Information Systems</b>			<b>Educational Leadership</b>		
BMIS 211	Intro to Bus Decision Support <sup>1</sup>	3	EDLD 531	Theoretical Fndtns/Col Stdnts (blended) <sup>4</sup>	3
BMIS 311	Management Information Systems (online) <sup>3</sup>	3	<b>Education - Special</b>		
<b>Business - Marketing</b>			EDSP 306	Exceptional Learners <sup>1</sup>	3
BMKT 325	Principles of Marketing (online) <sup>1</sup>	3	<b>Civil Engineering</b>		
<b>Chemistry</b>			ECIV 505	Quality Assure/Risk Management (online) <sup>4</sup>	3
CHMY 121IN	Introduction of General Chemistry <sup>1</sup>	4	<b>Engineering - Electrical</b>		
CHMY 123	Introduction of Organic Chemistry and Biochemistry <sup>2</sup>	4	EELE 203	Circuits II for Engineering <sup>1</sup>	4
CHMY 141	College Chemistry I <sup>1</sup>	4	EELE 261	Intro To Logic Circuits (online) <sup>3</sup>	4
CHMY 143	College Chemistry II <sup>2</sup>	4	<b>Engineering - General</b>		
CHMY 321	Organic Chemistry I <sup>1</sup>	4	EGEN 125CS	Tech, Innovation, and Society <sup>2</sup>	3
CHMY 323	Organic Chemistry II <sup>2</sup>	4	EGEN 201	Engineering Mechanics--Statics (on campus) <sup>1</sup>	3
<b>Coaching</b>			EGEN 201	Engineering Mechanics--Statics (online) <sup>1</sup>	3
COA 205	Introduction to Coaching (online) <sup>3</sup>	3	EGEN 202	Engineering Mechanics: Dynamics (on campus) <sup>1</sup>	3
COA 395	Practicum:Coaching Application (online) <sup>3</sup>	1	EGEN 202	Engineering Mechanics: Dynamics (online) <sup>1</sup>	3
COA 405	Advanced Concepts in Coaching (online) <sup>3</sup>	3	EGEN 203	Applied Mechanics <sup>1</sup>	3
<b>Communications</b>			EGEN 205	Mechanics of Mtls (equiv 305) (on campus) <sup>2</sup>	3
COMX 111US	Introduction to Public Speaking (Formerly COM 110US) <sup>1,2</sup>	3	EGEN 205	Mechanics of Mtls (equiv 305) (online) <sup>2</sup>	3
<b>Community Health</b>			EGEN 208	Applied Strength of Materials <sup>2</sup>	3
CHTH 205	Drugs and Society (online) <sup>1</sup>	3	EGEN 310R	Multidisciplinary Engineering Design <sup>1</sup>	3
CHTH 245	Physical Activity, Nutrition and Health in Aging (online) <sup>1</sup>	3	EGEN 324	Applied Thermodynamics <sup>1</sup>	3
CHTH 317	Health Behavior Theories (online) <sup>2</sup>	3	EGEN 325	Engineering Economic Analysis <sup>1</sup>	3
CHTH 435	Human Response To Stress (online) <sup>1,2</sup>	3	EGEN 335	Fluid Mechanics (online) <sup>2</sup>	3
<b>Computer Science</b>			EGEN 350	Applied Engineering Data Analysis <sup>1</sup>	2
CS 145RA	Web Design (online) <sup>2</sup>	3	<b>Engineering - Mechanical</b>		
<b>Computer Science - Programming</b>			EMEC 103	CAE I-Engineering Graphics Communications <sup>1</sup>	2
			EMEC 320	Thermodynamics I <sup>1</sup>	3

EMEC 403	CAE IV--Design Integration <sup>1</sup>	3	KIN 491	Special Topics (Exercise Physiology) <sup>4</sup>	3
<b>Engineering Technology - Mechanical</b>			<b>Land Resources &amp; Environmental Sciences</b>		
ETME 215	Manufacturing Processes <sup>1</sup>	3	LRES 562	Land Rehab Field Problem <sup>4</sup>	2
ETME 310	Machining and Industrial Safety <sup>1</sup>	3	<b>Literature</b>		
ETME 311	Joining Processes <sup>1</sup>	3	LIT 110IH	Introduction to Literature: Explorations in Literature (online) <sup>1</sup>	3
ETME 360	Measurements and Instrumentation Applications <sup>2</sup>	3	LIT 214D	Regional Literature <sup>2</sup>	3
<b>Family and Consumer Science</b>			LIT 285D	Mythologies (online) <sup>1</sup>	3
FCS 101IS	Indiv and Fam Dev: Lifespan (online) <sup>1</sup>	3	<b>Mathematics</b>		
FCS 261	Adult Development and Aging (online) <sup>2</sup>	3	M 121Q	College Algebra (online) <sup>1</sup>	3
FCS 263	Relationships and Fam Systems (online) <sup>1</sup>	3	M 121Q	College Algebra (on campus) <sup>1,2</sup>	3
FCS 371	Research Methods in HHD (online) <sup>3,4</sup>	3	M 145Q	Math for the Liberal Arts <sup>1,2</sup>	3
FCS 461	Principles Wellbeing in Aging (online) <sup>2</sup>	3	M 151Q	Precalculus <sup>2</sup>	4
FCS 465R	Family Law & Public Policy (online) <sup>1</sup>	3	M 161Q	Survey of Calculus <sup>1,2</sup>	4
<b>Film</b> <sup>4</sup>			M 171Q	Calculus I <sup>1,2</sup>	4
FILM 101IH	Understanding Film and Media <sup>2</sup>	3	M 172Q	Calculus II <sup>1,2</sup>	4
FILM 381	Studies in Film <sup>1</sup>	3	M 221	Introduction to Linear Algebra <sup>1</sup>	3
FILM 481	Advanced Studies in Film <sup>2</sup>	3	M 273Q	Multivariable Calculus <sup>1,2</sup>	4
FILM 494	Seminar/Workshop (Film and Photobarding) <sup>1</sup>	3	M 274	Introduction to Differential Equation <sup>1,2</sup>	4
FILM 494	Seminar/Workshop (Color Correction with DaVinci Resolve Bootcamp) <sup>1</sup>	3	M 424	Algebraic Thinking and Number Sense in the Middle Grades <sup>4</sup>	3
FILM 494	Seminar/Workshop (Advanced Narrative Production) <sup>1</sup>	3	M 518	Statistics For Teachers (online) <sup>4</sup>	3
<b>Geography</b>			M 523	Number Structure for Teachers (online) <sup>4</sup>	3
GPHY 141D	Geography of World Regions <sup>1</sup>	3	M 526	Discrete Mathematics for Teachers <sup>4</sup>	3
GPHY 284	Intro to GIS Science & Cartog <sup>2</sup>	3	<b>Media Arts</b>		
GPHY 497	Geography Instruction <sup>3</sup>	1-2	MART 145RA	Web Design (online) <sup>2</sup>	3
<b>Geology</b>			MART 145RA	Web Design (on campus) <sup>2</sup>	3
GEO 429R	Field Geology <sup>1</sup>	6	<b>Modern Languages</b>		
<b>Graphic Design</b>			ML 100IH	Intro to World Cultures (online) <sup>2</sup>	3
GDSN 360	Yellowstone Digital (6/13-6/18/16) <sup>4</sup>	3	<b>Music -Education</b>		
GDSN 361	Teton Digital (7/11-7/16/16) <sup>3</sup>	3	MUSE 530	Music, Society, Education (online) <sup>1</sup>	3
GDSN 378	Guerrilla Advertising (5/23-6/9/16) <sup>4</sup>	5	<b>Music - General</b>		
<b>Health</b>			MUSI 101IA	Enjoyment of Music (online) <sup>1,2</sup>	3
HTH 220	Human Sexuality (online) <sup>1</sup>	3	MUSI 106	Music Theory II (online) <sup>3</sup>	3
HTH 455	The Ethic of Care <sup>4</sup>	3	MUSI 203IA	American Popular Music (blended) <sup>1</sup>	3
<b>History - American</b>			MUSI 203IA	American Popular Music (online) <sup>1,2</sup>	3
HSTA 102IH	American History II (online) <sup>1</sup>	4	MUSI 307IA	World Music <sup>1</sup>	3
HSTA 322	Am History: WWII to Present (online) <sup>1</sup>	3	MUSI 495	Applied Music IV <sup>4</sup>	1-2
<b>History - World</b>			<b>Native American Studies</b>		
HSTR 205CS	The World Environment (online) <sup>1</sup>	3	NASX 105D	Intro Native Amer Studies (blended) <sup>2</sup>	3
HSTR 436	Armed Conflict Mod Lat Am (online) <sup>1</sup>	3	NASX 105D	Intro Native Amer Studies (online) <sup>1</sup>	3
<b>Horticulture and Landscape Design</b>			NASX 232D	MT Indian Cult, Hist, Cur Issu (online) <sup>2</sup>	3
HORT 345	Market Gardening <sup>1</sup>	3	NASX 491	Special Topics (Activism & Indigeneity-online) <sup>3</sup>	1-4
<b>Human Development - Counseling</b>			NASX 554	Indian Education for All (online) <sup>3</sup>	3
HDCO 502	Cnsl Ethic Prof Orient (blended) <sup>2</sup>	2	<b>Nursing</b>		
HDCO 506	School Counsel Programs (blended) <sup>2</sup>	3	NRSG 220	Foundatns Ethcl Nrsng Recitatn (online) <sup>1,2</sup>	2
HDCO 508	Counseling Theories I (blended) <sup>2</sup>	3	NRSG 220	Foundatns Ethcl Nrsng Recitatn (on campus) <sup>1</sup>	2
HDCO 524	Consultation and Crisis: Theory and Practice (blended) <sup>2</sup>	3	NRSG 225	Fndtns Plng Prvdng Clin Nrs Cr <sup>2</sup>	4
HDCO 526	Adventure Counseling (blended) <sup>2</sup>	3	NRSG 238	Hlth Assmnt Across Lifespan <sup>1</sup>	4
HDCO 551	Appraisal (blended) <sup>2</sup>	3	NRSG 258	Principles of Pathophysiology (online) <sup>3</sup>	3
HDCO 558	Career Counseling (blended) <sup>2</sup>	2	NRSG 258	Principles of Pathophysiology (on campus) <sup>3</sup>	3
<b>Kinesiology</b>			NRSG 336	Nursing Pharmacotherapeutics <sup>3</sup>	3
			NRSG 341	Psychosocial Nursing Concepts <sup>1</sup>	3

NRSG 469	Cultural Apps in Nursing <sup>1</sup>	1-6	PSCI 439	International Human Rights (online) <sup>2</sup>	3
NRSG 477	Pop Based Nursing Care in Comm <sup>3,4</sup>	6	PSCI 454	Cinema and Political Theory <sup>1</sup>	3
NRSG 487	Nursing Ldrshp/Mgmt Dvlpmnt <sup>3</sup>	6	<b>Psychology</b>		
NRSG 504	Assmnt and Eval of Education (online) <sup>1</sup>	3	PSYX 100IS	Intro to Psychology <sup>1</sup>	4
NRSG 519	Pharm for Middle Aged Adults (online) <sup>3</sup>	1	PSYX 223	Research Design and Analysis I <sup>1</sup>	4
NRSG 562	Primary Care II <sup>3</sup>	6	PSYX 225	Research Design and Analysis II <sup>1</sup>	3
NRSG 591	Special Topics (Resilience & Healthcare-blended) <sup>1</sup>	3	PSYX 230	Developmental Psychology <sup>2</sup>	3
NRSG 609	Adv Practice Nrsg Ldrshp (blended) <sup>3</sup>	2	PSYX 263CS	The Psychology of Film <sup>1</sup>	3
NRSG 620	Adv Pharm II (blended) <sup>3</sup>	3	PSYX 375	Behavior Modification (online) <sup>1,2</sup>	3
NRSG 621	Advanced Clinical I-FI (blended) <sup>3</sup>	6	PSYX 385	Psychology of Personality <sup>1</sup>	3
NRSG 623	Advanced Clinical III Primary Care for Aging Families (blended) <sup>3</sup>	6	PSYX 462	Psychology of Prejudice <sup>1</sup>	3
NRSG 630	Adv Psychopharm II (blended) <sup>3</sup>	3	PSYX 494	Seminar (Drugs & Behavior-online) <sup>1</sup>	3
NRSG 631	Advanced Clinical I – Psych/Mental Health (blended) <sup>3</sup>	6	<b>Religious Studies</b>		
NRSG 633	Advanced Clinical III, Psych/Mental Health (blended) <sup>3</sup>	6	RLST 100D	Intro to the Study of Religion (online) <sup>2</sup>	3
<b>Nutrition</b>			RLST 202D	Hindu Traditions (online) <sup>2</sup>	3
NUTR 221CS	Basic Human Nutrition (online) <sup>3</sup>	3	RLST 203D	Buddhist Traditions (online) <sup>1</sup>	3
NUTR 351	Nutrition and Society <sup>3</sup>	3	<b>Sociology</b>		
NUTR 524	Adolescent Nutrition (online) <sup>4</sup>	2	SOCI 101IS	Introduction to Sociology (online) <sup>1,2</sup>	3
<b>Philosophy</b>			SOCI 221IS	Criminal Justice System (online) <sup>2</sup>	3
PHL 101IH	Intro Phil:Reason and Reality (online) <sup>1,2</sup>	3	SOCI 318R	Sociological Research Methods (online) <sup>2</sup>	3
PHL 103D	Philosophy and Popular Culture (online) <sup>1</sup>	3	SOCI 326	Sociology of Gender (online) <sup>1</sup>	3
PHL 110IH	Intro Ethics:Good and Evil (online) <sup>2</sup>	3	SOCI 332	Sociology of the Family (online) <sup>1</sup>	3
PHL 322	Philosophy & Environmntl Ethics (online) <sup>1</sup>	3	<b>Spanish</b>		
PHL 327	Aesthetics and the Arts (online) <sup>2</sup>	3	SPNS 101	Elementary Spanish I <sup>1</sup>	3
<b>Photography</b>			SPNS 102D	Elementary Spanish II <sup>2</sup>	3
PHOT 113RA	Understanding Photography <sup>1</sup>	3	SPNS 335IH	Travel in Latin Am Lit & Film <sup>1</sup>	3
PHOT 494	Seminar/Workshop (Small Town Documentary) <sup>1</sup>	3	<b>Statistics</b>		
<b>Physics</b>			STAT 216Q	Introduction to Statistics (on campus) <sup>1,2</sup>	3
PHSX 205	College Physics I <sup>1</sup>	4	STAT 216Q	Introduction to Statistics (online) <sup>1,2</sup>	3
PHSX 207	College Physics II <sup>2</sup>	4	STAT 217Q	Intermediate Statistical Concepts <sup>1,2</sup>	3
PHSX 220	Physics I (w/ calculus) <sup>1</sup>	4	STAT 332	Statistics for Scientists and Engineers <sup>1</sup>	3
PHSX 222	Physics II (w/ calculus) <sup>2</sup>	4	<b>Surveying</b>		
PHSX 224	Physics III <sup>1</sup>	4	SRVY 230	Intro to Srvyg for Engineers <sup>1</sup>	3
PHSX 401	Physics by Inquiry I <sup>4</sup>	3	<b>Sustainable Food and Bioenergy Systems</b>		
PHSX 403	Physics by Inquiry III <sup>4</sup>	3	SFBS 296	Practicum: Towne's Harvest <sup>3</sup>	3
PHSX 491	Special Topics (Conceptual Physics-online) <sup>4</sup>	1-4	SFBS 445R	Culinary Marketing: Farm/Table <sup>2</sup>	3
PHSX 511	Astronomy for Teachers (online) <sup>3</sup>	3	SFBS 541	Culinary Marketing: Farm to Table (co-convended with SFBS 445R) <sup>2</sup>	3
PHSX 513	Quantum Mechanics Online (online) <sup>4</sup>	3	<b>Technology Education</b>		
PHSX 591	Special Topics (Tchg Electric & Magnetism) <sup>4</sup>	2	TE 250CS	Technology and Society (online) <sup>4</sup>	3
PHSX 591	Special Topics (Elect Circuits & Magnetism-online) <sup>4</sup>	2	<b>Theatre</b>		
PHSX 591	Special Topics (Physics Renew Energy Tchrs-online) <sup>4</sup>	3	THTR 122IA	Acting for Non-Majors <sup>1</sup>	3
PHSX 591	Special Topics (The World of Motion-online) <sup>2</sup>	1	<b>University Studies</b>		
<b>Physics - Astronomy</b>			COMX 111US	Introduction to Public Speaking (formerly COM 110US) <sup>1,2</sup>	3
ASTR 110IN	Introduction to Astronomy: Mysteries of the Sky <sup>2</sup>	3	<b>Women's and Gender Studies</b>		
<b>Political Science</b>			WGSS 201IH	Intro to Feminist Theories (online) <sup>1</sup>	3
PSCI 210IS	Introduction to American Government (online) <sup>1</sup>	3	<b>Writing</b>		
			WRIT 101W	College Writing I (on campus) <sup>1,2</sup>	3
			WRIT 101W	College Writing I (online) <sup>1</sup>	3
			WRIT 201	College Writing II <sup>1,2</sup>	3

<sup>1</sup> Offered First Six Week Session

<sup>2</sup> Offered Second Six Week Session

<sup>3</sup> Offered Full 12 Week Session

<sup>4</sup> Intersession-Non-Standard Term Dates

Please also see additional course offerings in the following sections:

- Summer Master's Degree Programs (p. 44)
- Non-Degree and Certificate Programs (p. 46)

## Uniquely Montana

### A Selection of Unique Academic Credit Courses Offered at MSU This Summer

A wide variety of special courses is available at MSU during Summer Session 2016, and we've highlighted a few of them here. Many of these courses are offered only during the summer and take advantage of southwestern Montana's natural environment; others provide professional development opportunities for teachers and coaches; still others offer unique experiences in archaeology. There's a little something for everyone—including selections in art, music, languages, theatre, geology, ecology, and gardening.

**Course registration will take place through the MSU Registrar or the School of Art. The method of registration is noted with each course description.** To enroll in courses through the Registrar or the School of Art, students must be admitted to MSU; Extended University courses do not carry this requirement.

*Please note:* This is not a complete listing of Summer Session courses. For all Registrar courses, days of offering, times and locations, refer to the Summer Session Schedule of Classes via the Web; information regarding registration can be found in the How to Register for Classes (p. 6) section.

For a listing of Extended University offerings and information on how to register, visit the Extended University website at <http://eu.montana.edu/ContinuingEd>.

## Accounting

*Enroll through the Registrar*

ACTG 524 International Accounting \* 3

\* Non-standard Term Dates

## Activities - General

Try an activity course this summer and earn academic credit for it! All courses will run 6 weeks, from May 16-June 24 or June 27-August 5, and are worth 1 credit each.

*Enroll through the Registrar*

ACT 110	Beginning Weight Training (First & Second Six Week Session) <sup>1,2</sup>	1
ACT 129	Circuit Training (First Six Week Session) <sup>1</sup>	1
ACT 150	Beginning Yoga (First & Second Six Week Session) <sup>1,2</sup>	1

For more information, contact Abbey Keene, Recreational Sports and Fitness, 994-6278 or [abbey.keene@montana.edu](mailto:abbey.keene@montana.edu).

<sup>1</sup> First Six Week Session

<sup>2</sup> Second Six Week Session

## Animal and Range Sciences

*Enroll through the Registrar*

ARNR 529/ WILD 429	Yellowstone Wildlife Habitat Ecology *	2
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- \* This course has non-traditional term dates:
- 6/13-6/16/16, 6:00-9:00 pm, ABB 138
  - Required Field Trips: 6/17-6/18/16, 7:30 am-7:30pm

## Art - Art History

*Enroll through the Registrar*

ARTH 310	Ancient Art Mesoamerica	3
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<sup>1</sup> Second Six Week Session

\* Offered even years, Summer Session only

## Biology - Ecological

*Enroll through the Registrar*

BIOE 416	Alpine Ecology (Second Six Week Session) <sup>2*</sup>	3
BIOE 421	Yellowstone Wildlife Ecology (First Six Week Session) <sup>1</sup>	3

<sup>1</sup> First Six Week Session

<sup>2</sup> Second Six Week Session

\* Required field trip: Contact the department for specific dates.

## Coaching

*Enroll through the Registrar*

COA 395	Practicum:Coaching Application (online) *	1
COA 405	Advanced Concepts in Coaching (online) *	3

\* This course is offered the Full Twelve Week Session. Contact instructor for more information: [cstewart@montana.edu](mailto:cstewart@montana.edu).

## Education

*Enroll through the Registrar*

EDCI 591	Special Topics <sup>1*</sup>	3
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\* This course is offered online.

<sup>1</sup> Non-Standard term dates. Contact the department for exact dates.

## Film

*Enroll through Registrar-Consent of instructor is required for FILM 481*

FILM 381	Studies in Film (Italian Cinema) <sup>1</sup>	3
FILM 481	Advanced Studies in Film (Quentin Tarantino-The Cinema of Cool) <sup>2</sup>	3
FILM 494	Seminar/Workshop (Storyboarding & Photobarding) <sup>2*</sup>	3
FILM 494	Seminar/Workshop (Color Correct DaVinci Resolve Bootcamp) <sup>2*</sup>	3
FILM 494	Seminar/Workshop (Advanced Narrative Production) <sup>1*</sup>	3

<sup>1</sup> First Six Week Session

<sup>2</sup> Second Six Week Session

<sup>3</sup> Full Twelve Week Session

- \* Actual Dates:
  - Storyboarding & Photobarding: 6/27-7/8/16
  - Color Correct DaVinci Reslove Bootcamp: Contact School of Film for actual dates
  - Advanced Narrative Production: Contact School of Film for actual dates

## Fish and Wildlife Science and Management

*Enroll through the Registrar*

WILD 429/ ARNR 529	Yellowstone Wildlife Habitat Ecology *	2
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- \* This course has non-traditional term dates, 6/13-8/5/16:
  - 6/13-6/16/16 from 6:00-9:00 pm in ABB 138
  - Required Field Trips-6/17-6/18/16 from 7:30 am-7:30 pm

## Geology

*Enroll through the Registrar*

GEO 429R	Field Geology <sup>1*</sup>	6
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- <sup>1</sup> First Six Week Session
- \* Refer to the Earth Sciences webpage (<http://www.montana.edu/earthsciences>) for more details.

## Graphic Design

*Enroll through the Registrar with consent of instructor*

GDSN 360	Yellowstone Digital *	3
GDSN 361	Teton Digital *	3
GDSN 378	Guerrilla Advertising *	5

- \* Actual Term Dates:
  - GDSN 360: 6/13-6/18/16
  - GDSN 361: 7/11-7/16/16
  - GDSN 378: 5/23-6/9/16

## Media Arts

*Note:* The lecture material for the summer offering is online. The laboratory may be done either in a supervised setting or online.

*Enroll through the Registrar*

MART/CS 145RA	Web Design <sup>1</sup>	3
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- <sup>1</sup> Second Six Week Session

## Music - Education

*Enroll through the Registrar*

MUSE 530	Music, Society, Education (online) <sup>1*</sup>	3
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- <sup>1</sup> First Six Week Session
- \* Contact the School of Music for exact dates

## Music - General

*Enroll through the Registrar*

MUSI 348	Ensemble (Bozeman Community Concert Band) <sup>1</sup>	1
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- <sup>1</sup> Full Twelve Week Session

## Philosophy

*Enroll through the Registrar*

PHL 327	Aesthetics and the Arts (online) <sup>1</sup>	3
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- <sup>1</sup> Second Six Week Session

## Photography

*Enroll through the Registrar*

PHOT 494	Seminar/Workshop (Small Town Documentary) <sup>1</sup>	3
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- <sup>1</sup> First Six Week Session

## Political Science

*Enroll through the Registrar*

PSCI 439	International Human Rights (online) <sup>2</sup>	3
PSCI 454	Cinema and Political Theory <sup>1</sup>	3

- <sup>1</sup> First Six Week Session
- <sup>2</sup> Second Six Week Session

## Psychology

*Enroll through the Registrar*

PSYX 263CS	The Psychology of Film <sup>1</sup>	3
PSYX 462	Psychology of Prejudice <sup>1</sup>	3

- <sup>1</sup> First Six Week Session

## Spanish

*Enroll through the Registrar*

SPNS 101	Elementary Spanish I <sup>1*</sup>	3
SPNS 102D	Elementary Spanish II <sup>2*</sup>	3
SPNS 335IH	Travel in Latin Am Lit & Film <sup>1</sup>	3

- <sup>1</sup> First Six Week Session
- <sup>2</sup> Second Six Week Session
- \* Requires consent of instructor

## Theatre

*Enroll through the Registrar*

THTR 122IA	Acting for Non-Majors <sup>1</sup>	3
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- <sup>1</sup> First Six Week Session

## Summer Core Courses

The mission of MSU's core curriculum is to enhance students' use of multiple perspectives in making informed critical and ethical judgments in

their personal, public and professional lives through inquiry and research experiences. Details regarding the core curriculum may be found at [www.montana.edu/wwwcat/requirements/reqs4.html](http://www.montana.edu/wwwcat/requirements/reqs4.html).

For incoming freshmen and current high school students accepted into the Early Admission Program, Summer Session core courses offer a jump start on a college career as well as an introduction to the level of work that is expected as a student at MSU. The courses also serve as a catch-up opportunity for continuing students who need to progress toward or complete their core requirements.

Core courses are designated by a letter following the course number, e.g., WRIT 101W. The following letters are used to specify the core groups:

US	University Seminar
W	College Writing
Q	Quantitative Reasoning
D	Diversity
CS	Contemporary Issues in Science
IA	Arts Inquiry or
RA	Arts Research
IH	Humanities Inquiry or
RH	Humanities Research
IN	Natural Science Inquiry or
RN	Natural Science Research
IS	Social Science Inquiry or
RS	Social Science Research
R	Additional Research and Creative Experience Courses

The following courses offered for Summer Session 2016 are listed by core groups. For information regarding dates, times and location of offerings, refer to the Summer Class Schedule online. For course descriptions, go to [www.montana.edu/wwwcat/courses/courses2.html](http://www.montana.edu/wwwcat/courses/courses2.html).

*Please note:* New courses may have been added to this listing since the time of publishing. For updates, go to [www.montana.edu/summer/corecourses.html](http://www.montana.edu/summer/corecourses.html).

#### US - University Seminar

AGED 140US	Leadership Dev For Agriculture (blended) <sup>1</sup>	3
COMX 111US	Introduction to Public Speaking <sup>1,2</sup>	3

#### W - College Writing

WRIT 101W	College Writing I (on campus or online) <sup>1,2</sup>	3
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#### Q - Quantitative Reasoning

M 121Q	College Algebra (on campus or online) <sup>1,2</sup>	3
M 145Q	Math for the Liberal Arts <sup>1,2</sup>	3
M 151Q	Precalculus <sup>1,2</sup>	4
M 161Q	Survey of Calculus <sup>1,2</sup>	4
M 171Q	Calculus I <sup>1,2</sup>	4
M 172Q	Calculus II <sup>1,2</sup>	4
M 273Q	Multivariable Calculus <sup>1,2</sup>	4
STAT 216Q	Introduction to Statistics (on campus or online) <sup>1,2</sup>	3
STAT 217Q	Intermediate Statistical Concepts <sup>1,2</sup>	3

#### D - Diversity

AMST 101D	Introduction to American Studies (online) <sup>2</sup>	3
ANTY 101D	Anthropology and the Human Experience (online) <sup>1</sup>	3
BGEN 242D	Intro to Int'l Business (online) <sup>1</sup>	3

GPHY 141D	Geography of World Regions <sup>1</sup>	3
LIT 214D	Regional Literature <sup>2</sup>	3
LIT 285D	Mythologies (online) <sup>1</sup>	3
NASX 105D	Intro Native Amer Studies (online) <sup>1,2</sup>	3
NASX 232D	MT Indian Cult, Hist, Cur Issu (online) <sup>2</sup>	3
PHL 103D	Philosophy and Popular Culture (online) <sup>1</sup>	3
RLST 100D	Intro to the Study of Religion (online) <sup>2</sup>	3
RLST 202D	Hindu Traditions (online) <sup>2</sup>	3
RLST 203D	Buddhist Traditions (online) <sup>1</sup>	3
SPNS 102D	Elementary Spanish II <sup>2</sup>	3

#### CS - Contemporary Issues in Sciences

CSCI 215CS	Social & Ethical Issues in CS <sup>1</sup>	3
EGEN 125CS	Tech, Innovation, and Society <sup>2</sup>	3
HSTR 205CS	The World Environment (online) <sup>1</sup>	3
NUTR 221CS	Basic Human Nutrition (online) <sup>3</sup>	3
PSYX 263CS	The Psychology of Film <sup>1</sup>	3
TE 250CS	Technology and Society (online) <sup>4</sup>	3

#### IA - Arts Inquiry or RA - Arts Research

AMST 202RA	The Arts in America (on campus or online) <sup>3</sup>	3
ARCH 121IA	Introduction to Design <sup>2</sup>	3
ARCH 151RA	Design Fundamentals I <sup>1</sup>	4
ARCH 152IA	Design Fundamentals II <sup>2</sup>	4
ARTH 201IA	Art of World Civilization II <sup>2</sup>	4
ARTZ 105RA	Visual Language - Drawing <sup>1</sup>	3
ARTZ 109RA	Visual Language: Comprehensive Foundation <sup>1</sup>	4
ARTZ 110RA	Visual Language: Ideation and Creativity <sup>2</sup>	4
CS 145RA	Web Design (online) <sup>1</sup>	3
MART 145RA	Web Design (on campus or online) <sup>2</sup>	3
MUSI 101IA	Enjoyment of Music (online) <sup>1,2</sup>	3
MUSI 203IA	American Popular Music (blended or online) <sup>1,2</sup>	3

MUSI 307IA	World Music <sup>1</sup>	3
PHOT 113RA	Understanding Photography <sup>1</sup>	3
THTR 122IA	Acting for Non-Majors <sup>1</sup>	3

#### IH - Humanities Inquiry or RH - Humanities Research

FILM 101IH	Understanding Film and Media <sup>2</sup>	3
HSTA 102IH	American History II (online) <sup>1</sup>	4
LIT 110IH	Introduction to Literature: Explorations in Literature (online) <sup>1</sup>	3
ML 100IH	Intro to World Cultures (online) <sup>2</sup>	3
PHL 101IH	Intro Phil:Reason and Reality (online) <sup>1</sup>	3
PHL 110IH	Intro Ethics:Good and Evil (online) <sup>1</sup>	3
SPNS 335IH	Travel in Latin Am Lit & Film <sup>1</sup>	3
WGSS 201IH	Intro to Feminist Theories (online) <sup>1</sup>	3

#### IN - Natural Science Inquiry or RN - Natural Science Research

ASTR 110IN	Introduction to Astronomy: Mysteries of the Sky <sup>2</sup>	3
CHMY 121IN	Introduction of General Chemistry <sup>1</sup>	4
ERTH 101IN	Earth System Sciences <sup>1</sup>	4

#### IS - Social Science Inquiry or RS - Social Science Research

ANTY 252IS	Mysteries of the Past (online) <sup>2</sup>	3
ECNS 204IS	Microeconomics <sup>2</sup>	3
FCS 101IS	Indiv and Fam Dev: Lifespan (online) <sup>1</sup>	3

PSCI 210IS	Introduction to American Government (online) <sup>1</sup>	3
PSYX 100IS	Intro to Psychology <sup>1</sup>	4
SOCI 101IS	Introduction to Sociology (online) <sup>1,2</sup>	3
SOCI 221IS	Criminal Justice System <sup>2</sup>	3
<b>R - Additional Research and Creative Experience Courses</b>		
EDU 397R	Methods:K-8 Social Studies <sup>4</sup>	3
EGEN 310R	Multidisciplinary Engineering Design <sup>1</sup>	3
FCS 465R	Family Law & Public Policy (online) <sup>1</sup>	3
GEO 429R	Field Geology <sup>1</sup>	6
SFBS 445R	Culinary Marketing: Farm/Table <sup>2</sup>	3
SOCI 318R	Sociological Research Methods (online) <sup>2</sup>	3

<sup>1</sup> First Six Week Session

<sup>2</sup> Second Six Week Session

<sup>3</sup> Full Twelve Week Session

<sup>4</sup> Intersession: Please, contact department for exact dates.

### Core Courses Offered Online This Summer

AMST 101D	Introduction to American Studies	3
AMST 202RA	The Arts in America	3
ANTY 101D	Anthropology and the Human Experience	3
ANTY 252IS	Mysteries of the Past	3
BGEN 242D	Intro to Int'l Business	3
CS 145RA	Web Design	3
FCS 101IS	Indiv and Fam Dev: Lifespan	3
FCS 465R	Family Law & Public Policy	3
HSTA 102IH	American History II	4
HSTR 205CS	The World Environment	3
LIT 110IH	Introduction to Literature: Explorations in Literature	3
LIT 285D	Mythologies	3
M 121Q	College Algebra	3
MART 145RA	Web Design	3
ML 100IH	Intro to World Cultures	3
MUSI 101IA	Enjoyment of Music	3
MUSI 203IA	American Popular Music	3
NASX 105D	Intro Native Amer Studies	3
NASX 232D	MT Indian Cult, Hist, Cur Issu	3
NUTR 221CS	Basic Human Nutrition	3
PHL 101IH	Intro Phil:Reason and Reality	3
PHL 103D	Philosophy and Popular Culture	3
PHL 110IH	Intro Ethics:Good and Evil	3
PSCI 210IS	Introduction to American Government	3
RLST 100D	Intro to the Study of Religion	3
RLST 202D	Hindu Traditions	3
RLST 203D	Buddhist Traditions	3
SOCI 101IS	Introduction to Sociology	3
SOCI 318R	Sociological Research Methods	3
STAT 216Q	Introduction to Statistics	3
TE 250CS	Technology and Society	3
WGSS 201IH	Intro to Feminist Theories	3
WRIT 101W	College Writing I	3

## Summer Online Courses

Online courses offer a flexible alternative to attending the traditional classroom by delivering a variety of educational resources via the Internet. Whether you're working a summer job, leaving Bozeman for a few months, or just trying to fit an extra class into your schedule, you can still begin or continue your MSU education by enrolling in one or more online courses.

**Please note:** The courses listed in the Preliminary Course Listing (p. 32) reflect the summer class schedule as of January 2016. Since that time, some courses may have been added and other courses cancelled. For the most current information, please refer to the following websites:

- **For Registrar courses:** See the 2016 Summer Class Schedule (p. 32)
- **For Extended University courses:** Go to <http://eu.montana.edu/> online

## How Do Online Courses Work?

Online courses—also known as distance delivery courses—use a personal computer to connect participants from across the country and around the world via the Internet. Distance courses at MSU are offered on Desire2Learn, an online course delivery tool that allows students and instructors to interact with each other as a learning community on the Web.

Generally speaking, in an online course, you can expect to:

- connect via the Internet with a personal username and password
- participate in a course with set start and end dates (many classes have been developed with a structure similar to traditional on-campus courses with due dates tied to assignments, readings, and other course-related activities)
- proceed through course requirements together with your class, but be able to access the course at a time of day that is convenient to you
- make a time commitment that is about the same as for an on-campus course

## Is Online Learning Right for Me?

Learning at a distance requires a different set of resources than traditional face-to-face learning. If you're thinking about taking an online course but are not quite sure if you're ready to make the commitment, take the interactive quiz at <http://eu.montana.edu/online/quiz> to help you decide.

Whether it's face-to-face or online, a typical three-credit course offered over six weeks requires approximately 20 hours of time per week (in the classroom and outside of class). Such a course is equivalent to a half-time load.

Online instruction provides a level of flexibility that students find attractive. Also, with appropriate effort, the level of student-to-student and student-to-teacher interaction can exceed that of a face-to-face class. However, success in this environment requires a personal commitment and responsibility that is often much greater than that required in a face-to-face class. Before registering for an online course, think carefully about whether or not you have what it takes to be successful.

## Learning to Use Desire2Learn

Information on how to use Desire2Learn is available via the Desire2Learn login page at <https://ecat.montana.edu>.

## Required Equipment

At a minimum, online courses require:



- A computer running either Windows XP or higher or Mac OS 10.X.X
- A current browser
- Internet access

To ensure that you are using a supported browser and your settings are optimized for the best possible online learning experience, go to the Desire2Learn login page (address listed above) and click on the “System Check” link.

## How to Register

### Registrar Courses

You must be admitted to MSU in order to enroll in online courses offered through the Registrar; refer to the Admissions (p. 10) section starting of this bulletin for more information.

Registration for online courses is done in the same manner as that for on-campus courses. Refer to the Registration section (p. 6) for more information. Online courses and on-campus courses are listed together, along with Course Reference Numbers (CRN), in the Summer Class Schedule (p. 32).

### Extended University Courses

If you would like to register for a course offered through Extended University, please visit Extended University’s credit course web page at <http://eu.montana.edu/credit> for a listing of summer course offerings and information on how to register for Extended University courses.

## Fees

### Registrar Courses

Fees for online courses are the same as those charged for on-campus courses. Please refer the summer fee schedule (p. 15).

### Extended University Courses

Fees for online courses vary; refer to the Extended University Tuition, Fees and Financial Aid page, <http://eu.montana.edu/online/cost>, for specific courses and fees.

## Getting Started

Prior to the first day of class, Extended University students will receive notification (via email or regular mail) with information regarding required materials and how to login. Students enrolled in courses through the Registrar should check their official MSU email box for this notification.

MSU-Bozeman participants may use either their **first.last Desire2Learn** username or their **NetID** to login to Desire2Learn (D2L). **Important:** With either ID, D2L requires participants to use the **password associated with their NetID** to log in to D2L. Find out your first.last D2L username and/or your NetID via the Secure Area of **MyInfo** ([www.montana.edu](http://www.montana.edu)); click on “MyInfo” at bottom of page).

Set your NetID password at MSU’s Password Help Page: <http://password.montana.edu>.

Once you know your NetID, you can login to Desire2Learn by going to <http://ecat.montana.edu>; use your NetID and password.

Summer courses will be made active by the first day of class.

## For More Information

For more information about online learning, visit the Distance Learning Resources Web page at <http://eu.montana.edu/online/about>. You’ll find links to information about Desire2Learn as well as a full range of student services, library resources, and a comprehensive FAQ page.

## 2016 Summer Session Dates

First session (6 weeks)	May 16 - June 24
Second session (6 weeks)	June 27 - August 5
Full semester (12 weeks)	May 16 - August 5
Intercession	Dates vary; see individual courses

## Undergraduate Courses

### Enroll through the Registrar

AMST 101D	Introduction to American Studies <sup>2</sup>	3
AMST 202RA	The Arts in America <sup>3</sup>	3
ANTY 101D	Anthropology and the Human Experience <sup>1</sup>	3
ANTY 252IS	Mysteries of the Past <sup>1</sup>	3
BFIN 322	Business Finance <sup>1</sup>	3
BGEN 242D	Intro to Int'l Business <sup>1</sup>	3
BMGT 205	Prof Business Communication <sup>1</sup>	3
BMGT 335	Management and Organization <sup>2</sup>	3
BMIS 311	Management Information Systems <sup>3</sup>	3
BMKT 325	Principles of Marketing <sup>1</sup>	3
CHTH 205	Drugs and Society <sup>1</sup>	3
CHTH 245	Physical Activity, Nutrition and Health in Aging <sup>1</sup>	3
CHTH 317	Health Behavior Theories <sup>2</sup>	3
CHTH 325	Economic & Public Policies in Aging <sup>1</sup>	3
CHTH 435	Human Response To Stress <sup>1,2</sup>	3
COA 205	Introduction to Coaching <sup>3</sup>	3
COA 395	Practicum:Coaching Application <sup>3</sup>	1
COA 405	Advanced Concepts in Coaching <sup>3</sup>	3
CS/MART 145RA	Web Design <sup>2</sup>	3
EDU 370	Integrating Tech into Educ <sup>4</sup>	2
EDU 408	Professional Issues: K-12 <sup>3</sup>	2
EELE 261	Intro To Logic Circuits <sup>3</sup>	4
EGEN 201	Engineering Mechanics--Statics <sup>1</sup>	3
EGEN 202	Engineering Mechanics: Dynamics <sup>1</sup>	3
EGEN 205	Mechanics of Mtls (equiv 305) <sup>2</sup>	3
EGEN 335	Fluid Mechanics <sup>2</sup>	3
FCS 101IS	Indiv and Fam Dev: Lifespan <sup>1</sup>	3
FCS 261	Adult Development and Aging <sup>2</sup>	3
FCS 263	Relationships and Fam Systems <sup>1</sup>	3
FCS 371	Research Methods in HHD <sup>4</sup>	3
FCS 461	Principles Wellbeing in Aging <sup>2</sup>	3
FCS 465R	Family Law & Public Policy <sup>1</sup>	3
HSTA 102IH	American History II <sup>1</sup>	4
HSTA 322	Am History: WWII to Present <sup>1</sup>	3
HSTR 205CS	The World Environment <sup>1</sup>	3
HSTR 436	Armed Conflict Mod Lat Am <sup>1</sup>	3
HTH 220	Human Sexuality <sup>1</sup>	3
LIT 110IH	Introduction to Literature: Explorations in Literature <sup>1</sup>	3
LIT 285D	Mythologies <sup>1</sup>	3
M 121Q	College Algebra <sup>1,2</sup>	3
MART/CS 145RA	Web Design <sup>2</sup>	3
ML 100IH	Intro to World Cultures <sup>2</sup>	3
MUSI 101IA	Enjoyment of Music <sup>1,2</sup>	3

MUSI 106	Music Theory II <sup>3</sup>	3
MUSI 203IA	American Popular Music <sup>1,2</sup>	3
NASX 105D	Intro Native Amer Studies <sup>1,2</sup>	3
NASX 232D	MT Indian Cult, Hist, Cur Issu <sup>2</sup>	3
NASX 491	Special Topics (Activism & Indegeneity) <sup>3</sup>	3
NRSG 220	Foundatns Ethcl Nrsng Recitatn <sup>1,2</sup>	2
NRSG 258	Principles of Pathophysiology <sup>3</sup>	3
NUTR 221CS	Basic Human Nutrition <sup>3</sup>	3
PHL 101IH	Intro Phil:Reason and Reality <sup>1</sup>	3
PHL 103D	Philosophy and Popular Culture <sup>1</sup>	3
PHL 110IH	Intro Ethics:Good and Evil <sup>2</sup>	3
PHL 322	Philosophy & Envirnmntl Ethics <sup>1</sup>	3
PHL 327	Aesthetics and the Arts <sup>2</sup>	3
PHSX 491	Special Topics (Conceptual Physics) <sup>4</sup>	3
PSCI 210IS	Introduction to American Government <sup>1</sup>	3
PSCI 439	International Human Rights <sup>2</sup>	3
PSYX 375	Behavior Modification <sup>1,2</sup>	3
RLST 100D	Intro to the Study of Religion <sup>2</sup>	3
RLST 202D	Hindu Traditions <sup>2</sup>	3
RLST 203D	Buddhist Traditions <sup>1</sup>	3
SOCI 101IS	Introduction to Sociology <sup>1,2</sup>	3
SOCI 318R	Sociological Research Methods <sup>2</sup>	3
SOCI 326	Sociology of Gender <sup>1</sup>	3
SOCI 332	Sociology of the Family <sup>1</sup>	3
STAT 216Q	Introduction to Statistics	3
TE 250CS	Technology and Society <sup>4</sup>	3
WGSS 201IH	Intro to Feminist Theories <sup>1</sup>	3
WRIT 101W	College Writing I <sup>1,2</sup>	3

<sup>1</sup> First Six Week Session

<sup>2</sup> Second Six Week Session

<sup>3</sup> Full Twelve Week Session

<sup>4</sup> Intersession/Non-Standard Term Dates

Course schedule available at [https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW\\_SelSchClass](https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW_SelSchClass) (select Term, Subject, and Search Class)

## Nursing - Undergraduate and Graduate Courses

### Summer 2016 Online Courses

Enroll through the Registrar

NRSG 220	Foundatns Ethcl Nrsng Recitatn <sup>1</sup>	2
NRSG 258	Principles of Pathophysiology <sup>3</sup>	3
NRSG 504	Assmnt and Eval of Education <sup>1</sup>	3
NRSG 519	Pharm for Middle Aged Adults <sup>3</sup>	1

<sup>1</sup> First Six Week Session

<sup>2</sup> Second Six Week Session

<sup>3</sup> Full Twelve Week Session

Course descriptions available at <http://www.montana.edu/wwwcat/courses/nrsg.html>

Course schedule available at [https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW\\_SelSchClass](https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW_SelSchClass) (select Term, "NRSG" for Subject, and Search Class)

## Education - Graduate Courses

### Summer 2016 Courses

Enroll through the Registrar

EDCI 531	Contemp Issues in Ed <sup>2</sup>	3
EDCI 536	Construction of Curriculum <sup>2</sup>	3
EDCI 542	Creative Processes in Education <sup>2</sup>	3
EDCI 546	Schl Library Media Specialist <sup>1</sup>	3
EDCI 548	Mgmt of Information/Resources <sup>1</sup>	3

<sup>1</sup> Full Twelve Week Session

<sup>2</sup> Intersession

<sup>3</sup> Non-Standard Term Dates

Course descriptions available at <http://catalog.montana.edu/courseDescriptions/edci/>

Course schedule available at [https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW\\_SelSchClass](https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW_SelSchClass) (select Term, "EDCI" or "EDLD" for Subject, and Search Class)

## Summer Science and Mathematics Courses for Pre-Med

Summer Session 2016 offers the following series of science and mathematics courses designed to meet the special academic needs of students who plan to apply to medical, dental, or other health professional schools. The scheduling for this series of courses has been developed to allow students to enroll in one of the Chemistry courses and one of the Physics, Mathematics, or Statistics courses during each of MSU's two six-week summer sessions, thus enabling students to earn up to 16 science and mathematics credits in only 12 weeks. Other courses available to pre-med students this summer are BIOH 201—Human Anatomy & Physiology I for 5 credits, PSYX100 – Introduction to Psychology for 4 cr, or PSYX 230 – Developmental Psychology for 32 cr.

### Chemistry

CHMY 141	College Chemistry I <sup>1</sup>	4
CHMY 143	College Chemistry II <sup>2</sup>	4
CHMY 321	Organic Chemistry I <sup>1</sup>	4
CHMY 323	Organic Chemistry II <sup>2</sup>	4

### Physics

PHSX 205	College Physics I <sup>1</sup>	4
PHSX 207	College Physics II <sup>2</sup>	4

### Mathematics

M 161Q	Survey of Calculus <sup>1,2</sup>	4
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### Statistics

STAT 216Q	Introduction to Statistics <sup>1,2</sup>	3
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### Biology

BIOH 201	Human Anatomy and Physiology I <sup>3</sup>	5
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<sup>1</sup> First Six Week Session, May 16-June 24

<sup>2</sup> Second Six Week Session, June 27-August 5:

<sup>3</sup> Full Twelve Week Session, May 16-August 5

Please refer to the Summer Class Schedule at [www.montana.edu](http://www.montana.edu) (MyInfo) for more detailed information regarding course reference numbers (CRN), class locations and instructors.

## Post-Baccalaureate Pre-Medical Certificate Program

In September of 2005, MSU received approval from the Montana Board of Regents to institute a Post-Baccalaureate Pre-Medical Certificate Program, through which students who have completed their bachelor's degree may take the science and mathematics courses traditionally required for application to medical, dental, or other health professional schools.

For more information, visit the program's Web page at: [www.montana.edu/hpa/postbaccadvising.html](http://www.montana.edu/hpa/postbaccadvising.html)

### Admission to MSU

Admission to MSU is required and must be completed prior to registration for the Summer Science and Mathematics Courses.

#### New Students

Students not previously admitted to MSU must apply for admission to the University.

#### Undergraduates

Undergraduate students should apply for admission by following the steps below:

- Complete the MSU Application for Admission available online at [www.montana.edu/wwwcat/appopts.html](http://www.montana.edu/wwwcat/appopts.html)  
OR
- Complete a paper application (available from the MSU Admissions Office: (406) 994-2452 or [admissions@montana.edu](mailto:admissions@montana.edu))
- Submit the application along with the application fee (\$36 online or \$30 paper)
- Submit record of immunizations and Tuberculosis (TB) screening form to the Student Health Service (for more information see Applying for Admission (p. 10))

#### Post-Baccalaureates

Students who have completed their bachelor's degrees should apply for admission as non-degree graduate students by following the steps below:

- Complete the Application for Graduate Admission (available online via the Graduate School Web page at [www.montana.edu/gradschool](http://www.montana.edu/gradschool))
- Submit completed form to the Graduate School along with:
  - a. \$60.00 fee
  - b. official transcript from your degree-granting institution showing a posted bachelor's degree
- Submit record of immunizations and Tuberculosis (TB) screening form to the Student Health Service (for more information see Applying for Admission (p. 10))

*Please note:* Students interested in completing the Pre-Medical Certificate Program **must first be accepted into that program** through the MSU Division of Health Sciences. For more information go to [www.montana.edu/dhs/hpa/postbaccadvising.html](http://www.montana.edu/dhs/hpa/postbaccadvising.html).

#### Continuing & Former Students

Continuing students are those who attended MSU Spring Semester 2016.

Former students are those who previously attended MSU but were not enrolled Spring Semester 2016.

#### Undergraduates

Continuing MSU undergraduate students are automatically admitted to Summer Session. Former MSU undergraduate students must file an Intent to Register form with the Registrar's office. Former students should use the online Intent to Register through MyInfo.

#### Post-Baccalaureates

Students who have completed the requirements for their bachelor's degree should apply for admission to the Graduate School as non-degree graduate students (see instructions above under "New Students—Post-Baccalaureates").

*Please note:* Students interested in completing the Pre-Medical Certificate Program **must first be accepted into that program** through the MSU Division of Health Sciences. For more information go to [www.montana.edu/dhs/hpa/postbaccadvising.html](http://www.montana.edu/dhs/hpa/postbaccadvising.html).

### Course Registration

#### New Students

#### Undergraduates

Contact the Academic Advising Center at (406) 994-3532 to discuss advising and registration for summer courses.

#### Post-Baccalaureates (Graduates)

Graduate students may register on the Web. Instructions will be included with your admission acceptance letter from the Graduate School.

#### Continuing & Former Students

Continuing students may register beginning March 23 on the Web via MyInfo. Former students must file an Intent to Register form with the Registrar's Office. Former students should use the online Intent to Register through MyInfo and register for classes online. Registration information will be sent via the email address provided on the Intent to Register form.

Students may check their registration status on the Web by going to the MSU home page ([www.montana.edu](http://www.montana.edu)) and following these links: MyInfo; Enter Secure Area; Login (follow instructions on that page); Student Services; Registration; Student Detail Schedule.

### Tuition & Fees

A schedule of Tuition & Fees can be found in Summer Fees (p. 15) .

The following additional laboratory fees will be charged for the Summer Science Courses (subject to change with Board of Regents approval):

CHMY 141	\$20.65
CHMY 143	\$20.65
CHMY 321	\$35.10
CHMY 323	\$35.10
PHSX 205	\$20.40
PHSX 207	\$20.40
BIOH 201	\$30.80

#### Payment of Fees

Students may obtain a summary of their fees on the Web (My Info) via the following links: 1) Enter Secure Area; 2) Student Services; 3) Student Records; 4) Electronic Billing and Payment. Fees may be paid online, by mail, or in person at Montana Hall.

#### Credit Transfer

Students who wish to transfer their science and mathematics credits from MSU to another institution may do so by requesting a transcript from the

Registrar's Office. For more information visit the Registrar's Transcript Office page at [www.montana.edu/registrar/transcript/index.html](http://www.montana.edu/registrar/transcript/index.html).

## Housing & Meals

Please refer to the Summer Housing and Meals (p. 17) section.

## General Engineering Courses

Take them on campus or online!

*Enroll through the Registrar*

Each of the following General Engineering courses will be offered this summer with both an on-campus section and an online section.

EGEN 201	Engineering Mechanics--Statics <sup>1</sup>	3
EGEN 202	Engineering Mechanics: Dynamics <sup>1</sup>	3
EGEN 205	Mechanics of Mtls (equiv 305) <sup>2</sup>	3
EGEN 335	Fluid Mechanics <sup>2</sup>	3

\* For information about online courses and how they work, please see Summer Online Courses (p. 39).

<sup>1</sup> First 6 Week Session

<sup>2</sup> Second 6 Week Session

## Native American Studies Graduate Certificate

Montana State University's graduate certificate in Native American Studies is the only program of its type in the world. Courses cover current and historical aspects of Native American art, law, culture and contemporary issues, and students will gain a deeper insight into the American Indians of Montana, the region and the nation. Please check the website for more information and current summer offerings.

<http://eu.montana.edu/online/degrees/native-american-studies/>

## Sustainable Food and Bioenergy Systems

The Sustainable Food and Bioenergy Systems (SFBS) B.S. degree program (<http://sfbs.montana.edu>) is an exciting, innovative interdisciplinary program from Montana State University that promotes the sustainable production, distribution, and consumption of food and bioenergy. You will experience collaborative learning, directed coursework, and hands-on training.

SFBS 296	Practicum: Towne's Harvest (additional hours required outside of scheduled times) <sup>3</sup>	3
SFBS 346	Sustainable Food and Bioenergy Systems Summer Field Course <sup>2</sup>	2
SFBS 445R	Culinary Marketing: Farm/Table (co-convened with SFBS 541) <sup>2</sup>	3
SFBS 498	Internship <sup>3</sup>	1-12
SFBS 541	Culinary Marketing: Farm to Table (co-convened with SFBS 445R) <sup>2</sup>	3

<sup>1</sup> First Six Week Session

<sup>2</sup> Second Six Week Session

<sup>3</sup> Full Twelve Week Session

## Education for Educators

Education for Educators consists of Master's Degree Programs and Non-Degree and Certification Programs geared toward those in the education field.

### Summer Master's Degree Programs

- Family and Financial Planning (<http://www.montana.edu/online/degrees/FFP>): This program helps working professionals who already have bachelor's degrees start careers assisting people with personal finances. The program is conducted in cooperation with the Board of Standards for the Certified Financial Planner™ program. Successful students will be eligible to take the Certified Financial Planner™ Certification Examination.
- Master of Science in Mathematics (Mathematics Education Option) (<http://www.math.montana.edu/grad/msmath.html>): The Master of Science degree in mathematics at Montana State University is designed to prepare students for further graduate work or for employment in academic, industrial, business, or government forums. The prerequisites for the master's degree program in mathematics consist of the following courses or their equivalent: 4 semesters of Calculus through Differential Equations, Linear Algebra and a proof based course in Advanced Calculus or Real Analysis.
- Master of Science in Science Education (MSSE) (<http://www.montana.edu/msse/prospective-students/degree-program.html>): MSSE is an intercollege, interdisciplinary effort. Online graduate courses are offered during the fall semester, spring semester, and summer session and will be taken by asynchronous, computer-mediated communication. Montana-based field and lab graduate courses are offered during the summer session.

### Non-Degree and Certificate Programs

- Addiction Counseling Certificate Program (<http://www.montana.edu/online/degrees/addiction-counseling>): The MSU Addiction Counseling certificate represents 12 addiction specific coursework credits. These credits may be counted toward the Montana Licensed Addiction Counselor ([http://bsd.dli.mt.gov/license/bsd\\_boards/lac\\_board/board\\_page.asp](http://bsd.dli.mt.gov/license/bsd_boards/lac_board/board_page.asp)) credential.
- Educational Leadership-Superintendent Certification (<http://www.montana.edu/education/grad/edlead/supt-prep.html>): This is a post-master's program. Although formal admission into the Educational Leadership program is not required, candidates must hold a master's degree and principal endorsement as a prerequisite for taking courses within this option. The Superintendent Licensure Program provides the minimum academic requirements needed for a Superintendent endorsement in Montana to those currently holding a Class III License with a K-12 Principal Endorsement
- National Teachers Enhancement Network (NTEN) (<http://btc.montana.edu/courses.aspx/ntenhome.aspx>): The National Teachers Enhancement Network (NTEN) is one of the country's most-established online professional development programs for teachers. Courses are designed to help elementary, secondary and community college teachers develop a deeper understanding of science concepts while interacting with and learning new techniques from other teachers and researchers around the globe.
- School Library Media Certificate Program (<http://www.montana.edu/education/grad/librarymedia>): This program is geared toward licensed teachers who want to obtain the school library media endorsement. This certification program/endorsement can only be added to an existing teaching license.

## Summer Master's Degree Programs

### Family and Financial Planning (<http://www.montana.edu/online/degrees/FFP>):

This program helps working professionals who already have bachelor's degrees start careers assisting people with personal finances. The program is conducted in cooperation with the Board of Standards for the Certified Financial Planner™ program. Successful students will be eligible to take the Certified Financial Planner™ Certification Examination.

The Family Financial Planning program is offered through the Great Plains Distance Education Alliance (<http://www.gpidea.org>), a consortium of eight mid-western and western land-grant universities.

MSU Family Financial Planning students can expect to take approximately 2 to 3 three-credit online courses from each of the participating institutions throughout the course of their degree, benefiting from shared resources and shared intellectual expertise.

### Master of Science in Mathematics (Mathematics Education Option) (<http://www.math.montana.edu/grad/msmath.html>):

*The Master of Science Degree in Mathematics under the Mathematics Education Option is designed for practicing high school mathematics teachers. The degree consists of 30 semester hours of course work.*

Designed specifically to meet the needs of secondary mathematics teachers, the core courses and electives are drawn from common core content including mathematical modeling, statistics, algebra, geometry, analysis and discrete mathematics, as well as pedagogy courses focusing on technology, standards, curriculum and assessment. The program of study emphasizes inquiry-based learning and use of technology in the context of the Common Core State Standards for mathematics. Classroom research projects give teachers the opportunity to try new ideas for improving mathematics teaching and learning in their schools.

Courses are offered on the Bozeman campus each summer. Additionally, two Internet-based courses are offered each summer, fall, and spring.

All course credits may be applied toward teacher re-certification.

### Master of Science in Science Education (MSSE) (<http://www.montana.edu/msse/prospective-students/degree-program.html>):

*Designed to be completed in two Summer Sessions with five or more semesters interim distance learning course work.*

The Master of Science in Science Education degree program is designed for practicing science educators. This intercollege-interdisciplinary degree is sponsored by the colleges of Agriculture; Education, Health and Human Development; Letters and Science; and The Graduate School at MSU. The degree program is coordinated by Intercollege Programs for Science Education.

Thirty semester credits of course work are required for the degree. The program of study includes distance courses that students take by computer-mediated conferencing from their homes or work places and summer campus courses. The program ends with an on-campus summer session in which the student presents the culminating capstone project.

All students complete core courses (12 credits) in education and develop interdisciplinary combinations of courses (18 credits) from offerings in biology, chemistry, earth sciences, microbiology, physics, and other areas.

About three-fourths of the courses are offered through a distance learning mode of instruction.

Each student is advised by a three-person faculty graduate committee, and graduate programs are designed taking into account the student's background, interests, and career goals.

## Family Financial Planning

MSU offers a Master of Science Degree in Health & Human Development with an option in Family Financial Planning through the Great Plains Interactive Distance Education Alliance. The entire program is delivered online through Extended University and a consortium of eight state universities, including MSU. Students enrolled in the degree program have first priority to enroll in the courses. Students not enrolled in the program may register if room is available.

## Summer 2016 Courses

### Enroll through Extended University

HDFP 520	Investing for Family's Future	3
HDFP 545	Family Theory and Research I	3
HDFP 550	Housing/Real Estate	3
HDFP 575	Professional Paper	1-4
HDFP 576	Professional Practicum	3
HDFP 594	Seminar	1

### To learn more about the program, contact:

Janine Hansen  
jhansen@montana.edu  
(406) 994-5240

or visit the website:  
<http://eu.montana.edu/online/degrees/ffp>

## Master of Science in Mathematics (Mathematics Education Option)

*The Master of Science Degree in Mathematics under the Mathematics Education Option is designed for practicing high school mathematics teachers. The degree consists of 30 semester hours of course work.*

Designed specifically to meet the needs of secondary mathematics teachers, the core courses and electives are drawn from common core content including mathematical modeling, statistics, algebra, geometry, analysis and discrete mathematics, as well as pedagogy courses focusing on technology, standards, curriculum and assessment. The program of study emphasizes inquiry-based learning and use of technology in the context of the Common Core State Standards for mathematics. Classroom research projects give teachers the opportunity to try new ideas for improving mathematics teaching and learning in their schools.

Courses are offered on the Bozeman campus each summer. Additionally, two Internet-based courses are offered each summer, fall, and spring.

All course credits may be applied toward teacher re-certification.

**Summer Session 2016, which begins June 13 and ends July 29 for Mathematics Education, will include the following courses:**

## On-Campus Courses

June 20 - July 8, 2016

Enroll through the Office of the Registrar		
M 424	Algebraic Thinking and Number Sense in the Middle Grades	3

**June 20 - July 8, 2016**

Enroll through the Office of the Registrar		
M 526	Discrete Mathematics for Teachers	3

**Distance Delivery Courses****June 13 - July 29, 2016**

Enroll through the Office of the Registrar		
M 518	Statistics For Teachers	3
M 523	Number Structure for Teachers	3

**For more information on the Master of Science in Mathematics - Mathematics Education option** consult the Web page [www.math.montana.edu/MSMME](http://www.math.montana.edu/MSMME) or contact:

Jennifer Luebeck  
Dept of Mathematical Sciences  
Montana State University  
Bozeman, MT 59717-2400  
(406) 994-5341  
[jennifer.luebeck@montana.edu](mailto:jennifer.luebeck@montana.edu)

**Master of Science in Science Education (MSSE)**

*Designed to be completed in two Summer Sessions with five or more semesters interim distance learning course work.*

The Master of Science in Science Education degree program is designed for practicing science educators. This intercollege-interdisciplinary degree is sponsored by the colleges of Agriculture; Education, Health and Human Development; Letters and Science; and The Graduate School at MSU. The degree program is coordinated by Intercollege Programs for Science Education.

Thirty semester credits of course work are required for the degree. The program of study includes distance courses that students take by computer-mediated conferencing from their homes or work places and summer campus courses. The program ends with an on-campus summer session in which the student presents the culminating capstone project.

All students complete core courses (12 credits) in education and develop interdisciplinary combinations of courses (18 credits) from offerings in biology, chemistry, earth sciences, microbiology, physics and other areas. About three-fourths of the courses are offered through a distance learning mode of instruction.

Each student is advised by a three-person faculty graduate committee, and graduate programs are designed taking into account the student's background, interests and career goals.

**Summer Session 2016 will include the following courses:**

**On-Campus Courses**

Courses are restricted entry. For more information and registration details, contact [dianap@montana.edu](mailto:dianap@montana.edu) or (406) 994-5679.

**June 13-17**

CSCI 591	Special Topics	2
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**June 20-24**

EELE 591	Special Topics	2
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BIOE 520	Animal Biodiversity in GYE	2
PSPP 548	Flower Plnts of North Rock Mtn	2

**June 25**

ERTH 594	Seminar	1
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**June 27-July 1**

BIOE 523	Wildlife Ecology	2
ERTH 516	North Rocky Mtn Geology	2
LRES 557	Thermal Biology in YNP	2
PSPP 591	Special Topics	2

**July 5-9**

EDCI 575	Professional Paper and Project (Summer 2015 graduate candidates only)	3
CHMY 594	Seminar	1
LRES 569	Ecol of Invasive Plants in GYE	2

**July 11-15**

PHSX 591	Special Topics (Teaching Mechanics Using Research-based Curriculum)	2
BIOE 591	Special Topics	2
GEO 521	Dinosaur Paleontology	2

**July 18-22**

PHSX 401	Physics by Inquiry I (1st week of 2 weeks)	3
BIOE 591	Special Topics	2
BIOE 591	Special Topics	2

**July 25-29**

PHSX 401	Physics by Inquiry I (2nd week of 2 weeks)	3
LRES 591	Special Topics	2

**Distance Delivery Courses**

For more information and registration details, visit the MSSE website at [www.montana.edu/msse](http://www.montana.edu/msse) or call (406) 994-5679.

**June 13 - July 29**

EDCI 536	Construction of Curriculum	3
BIOE 513	Terrestrial Ecology of Plains and Prairies	1
BIOE 519	Riparian Zones/Wetlands	2
BIOE 591	Special Topics	3
CHMY 591	Special Topics	3
CHMY 591	Special Topics	3
CHMY 591	Special Topics	3
MB 541	Microbial Genetics	3
MSSE 501	Inquiry Sci Eng Prac	2

**For more information on the Master of Science in Science Education (MSSE) Program** visit our website at [www.montana.edu/msse](http://www.montana.edu/msse) or contact:

Diana Paterson  
MSSE Associate Director  
451 Reid Hall  
P.O. Box 172805  
Montana State University  
Bozeman, MT 59717-2805  
(406) 994-5679  
[dianap@montana.edu](mailto:dianap@montana.edu)

## Non-Degree and Certificate Programs

### Addiction Counseling Certificate Program (<http://www.montana.edu/online/degrees/addiction-counseling/>):

The MSU Addiction Counseling certificate represents 12 addiction specific coursework credits. These credits may be counted toward the Montana Licensed Addiction Counselor ([http://bsd.dli.mt.gov/license/bsd\\_boards/lac\\_board/board\\_page.asp](http://bsd.dli.mt.gov/license/bsd_boards/lac_board/board_page.asp)) credential.

Montana State University will award you an addiction counseling certificate upon successful completion of the 12 credits.

Montana State University offers a series of fully online courses for those interested in working in the addiction counseling field. The program, which is available to both Montana and out-of-state residents, provides coursework that can be applied toward the State of Montana's Addiction Counselor License. The program is specifically designed to provide the required coursework for the State of Montana licensure requirements; out-of-state students should check their state's general licensing criteria. State licensure also requires additional coursework, clinical internship and a board exam. MSU does not facilitate the internship process.

### Educational Leadership-Superintendent Certification (<http://www.montana.edu/education/grad/edlead/supt-prep.html>):

The purpose of this program is to provide the minimum skills and knowledge required for the position of district superintendent. In addition to improving skill and knowledge, it is the goal of the program to create strong networks among students to support effective practices. To that end, classes are generally offered in a blended format which combines face-to-face delivery and distance delivery. An appropriate balance of theory and practice is designed into the content of the coursework.

Courses are offered in a hybrid format. During the academic year, the courses are delivered using distance delivery technology with a face-to-face meeting held in conjunction with a state-level administrator conference. The summer courses start with online instruction in early June and face-to-face instruction is held later in June with course completion in July.

Contact the Department of Education's Graduate Program Office (see contact information below) to complete the Graduate Application.

*\*Note, there will be no fee attached to the application, as students will not be associated with the MSU Graduate School. The application is merely for contact and previous schooling information.*

Contact Dr. Tena Versland, Program Leader in Educational Leadership, to discuss the lineup of courses required for certification and individual circumstances.

Information about course offerings may be found on the Department of Education website: <http://www.montana.edu/education/grad/edlead/index.html>

### National Teachers Enhancement Network (NTEN) (<http://btc.montana.edu/courses/aspx/ntenhome.aspx>):

The National Teachers Enhancement Network (NTEN) is one of the country's most-established online professional development programs for teachers. Courses are designed to help elementary, secondary and community college teachers develop a deeper understanding of science concepts while interacting with and learning new techniques from other teachers and researchers around the globe.

NTEN faculty are university scientists, engineers, mathematicians, and science educators, all experienced in online teaching. Through NTEN, educators can also access professional resources and discuss issues with other

educators online. NTEN was created by Montana State University and originally funded by the National Science Foundation. NTEN is part of the National Science Teachers Association (NSTA) Institute.

### School Library Media Certificate Program (<http://www.montana.edu/education/grad/librarymedia/>):

This program is geared toward licensed teachers who want to obtain the school library media endorsement. This certification program/endorsement can only be added to an existing teaching license.

We have received official approval from accreditation officials in Alaska, Colorado, Idaho, Montana, Oregon, South Dakota, North Dakota, Washington, and Wyoming. Many other states accept our program as well. Contact your state's Department of Education to ensure that the program is accepted. Our education programs are accredited by the Montana Board of Public Education, the Teacher Education Accreditation Council/Council for the Accreditation of Educator Preparation (TEAC/CAEP), and we participate in the National Association of State Directors of Teacher Education and Certification's (NASDTEC) Interstate Contract.

Additionally, the Library Media program offers an option to earn a Masters degree (MEd) in Curriculum & Instruction after completion of all Library Media coursework. The Masters portion involves completion of 9 additional credits past the 21 required by the Library Media Certificate program, and these courses are also offered online. A student must apply to the full MEd program either initially or before 9 credits of Library Media coursework have been completed. See Master of Education in Curriculum & Instruction - Professional Educator Option (<http://catalog.montana.edu/graduate/education-health-human-development/education/med-curriculum-leadership/professional-educator-option>)

## Addiction Counseling Certificate Program

The Addiction Counseling Program provides all of the required coursework for the state of Montana licensure requirements.

The program is administered by the Dept. of Health & Human Development and is offered completely online. You must be admitted into the program to take these courses. The admission deadline for summer is April 15.

### Summer 2016 Courses

#### Enroll through the Registrar

LAC 505	Cross Cultural & Ethical Considerations in Addictions Counseling	3
LAC 508	Counseling Theories in Addiction Settings	3

#### For more information, contact:

Sarah Hendriks  
sarah.hendriks@montana.edu  
(406) 994-7441

Or visit the website: <http://www.montana.edu/online/degrees/addiction-counseling/>

## Educational Leadership - Superintendent Certification

The Superintendent Certification Program provides the required coursework for current principals to receive their superintendent endorsement by the Montana Office of Public Instruction.

The program is administered by the Department of Education.

## Summer 2016 Courses

### Courses to be announced

#### For more information, contact:

Tena Versland  
 Montana State University  
 tena.versland@montana.edu  
 (406) 994-6799

or visit the website:  
[www.montana.edu/education/grad/edlead/supt-prep.html](http://www.montana.edu/education/grad/edlead/supt-prep.html) (<http://catalog.montana.edu/summer-bulletin/summer-offerings/education-educators/non-degree-certificate-programs/educational-leadership-superintendent-certification/www.montana.edu/education/grad/edlead/supt-prep.html>)

## National Teachers Enhancement Network (NTEN)

### About NTEN

The National Teachers Enhancement Network (NTEN) is one of the country’s most-established online professional development programs for teachers. Courses are designed to help elementary, secondary and community college teachers develop a deeper understanding of science concepts while interacting with and learning new techniques from other teachers and researchers around the globe.

NTEN faculty are university scientists, engineers, mathematicians, and science educators, all experienced in online teaching. Through NTEN, educators can also access professional resources and discuss issues with other educators online. NTEN was created by Montana State University and originally funded by the National Science Foundation. NTEN is part of the National Science Teachers Association (NSTA) Institute.

#### How is NTEN different from other online science programs?

- NTEN strives to teach science concepts, not just educational methods
- NTEN faculty practice a hands-on, inquiry-based style that mirrors the classroom and sparks new ideas
- NTEN facilitates connections among participants, so that teachers learn best practices from colleagues around the world
- NTEN credits come from Montana State University, a top-tier public research institution

#### For general information and registration:

<http://eu.montana.edu/NTEN>  
 (406) 994-6812  
 (800) 282-6062

#### Registration for Summer will open in March!

## Summer 2016 Courses

Enroll through Extended University at [eu.montana.edu/NTEN](http://eu.montana.edu/NTEN)

BIOL 591	Special Topics	1
EDCI 591	Special Topics	3
EDCI 591	Special Topics	3
ERTH 591	Special Topics	3
ERTH 591	Special Topics	3
ERTH 591	Special Topics	2
LRES 591	Special Topics	3

M 518	Statistics For Teachers	3
MB 540	Environmental Microbiology	3
NUTR 524	Adolescent Nutrition	2
PHSX 491	Special Topics (Conceptual Physics)	3
PHSX 511	Astronomy for Teachers	3
PHSX 513	Quantum Mechanics Online	3
PHSX 591	Special Topics (The World of Motion)	1
PHSX 591	Special Topics (Electric Circuits and Magnetism)	2
PHSX 591	Special Topics (Physics of Renewable Energy for Teachers)	3

## School Library Media Certificate Program

The online School Library Media Certificate Program is housed in the Department of Education in the College of Education, Health & Human Development.

If you are interested in acquiring the endorsement on your teaching license to become a school library media specialist, please consider joining us. The Library Media website contains most of the information you need in order to plan your route to certification and to select courses.

We have received official approval from accreditation officials in Alaska, Colorado, Idaho, Montana, Oregon, South Dakota, North Dakota, Washington, and Wyoming. Many other states accept our program as well. Our education programs are accredited by the Montana Office of Public Instruction and the Montana Board of Public Education, and we participate in the National Association of State Directors of Teacher Education and Certification’s (NASDTEC) Interstate Contract.

## Summer 2016 Courses

You must be accepted into the Library Media Certificate Program in order to take courses.

EDCI 546	Schl Library Media Specialist <sup>1</sup>	3
EDCI 548	Mgmt of Information/Resources <sup>1</sup>	3

<sup>1</sup> Full Twelve Week Session

Visit Library Media Program website: <http://www.montana.edu/education/grad/librarymedia/index.html>

#### For additional information about admission contact:

Library Media Program  
 Montana State University  
 P.O. Box 172880  
 Bozeman, MT 59717-2880

Tel: (406) 994-3120  
 Fax: (406) 994-3261  
 E-mail: [ann.ewbank@montana.edu](mailto:ann.ewbank@montana.edu)  
 Location: 222 Reid Hall



# Early Enrollment for Pre-College Students

## Opportunities for Recent High School Graduates

Summer Session 2016 is a great way to introduce yourself to MSU and ease your transition from high school into college life. As an incoming freshman, you can get a jump start on your college career during the summer by completing one or more of your core course requirements.

Summer Session students enjoy smaller class sizes, a relaxed atmosphere on campus, organized outdoor group recreation, and academic advisors available to assist in making choices that will lead to a successful college experience. Come join the fun at Summer Session 2016!

### For More Information

#### Admission to MSU (p. 10)

#### Core courses offered during Summer 2016

#### Academic Advising Center

130 Gaines Hall  
8:30 a.m.-4:30 p.m., M, T, Th, F  
9:30 a.m.-4:30 p.m., W  
(406) 994-3532  
universitystudies@montana.edu

*Walk-in* advising for assistance with such things as drop/add, tutoring referrals, completion of change of curriculum forms, or other quick questions is available during our open hours. Special advising *appointments* to discuss matters such as choosing a major or minor, mapping out academic plans, or dealing with suspension or probation can be made by telephoning, e-mailing, or stopping by the office.

University Studies advising services are available to all students on campus. We also welcome inquiries from faculty and staff.

### General questions about Summer Session

Contact the Office of Summer Session (<http://www.montana.edu/summer>).

## Early Admission for Current High School Students

Summer Session 2016 provides an opportunity for current high school students to experience the college atmosphere and the level of coursework that is expected of a student at MSU. Whether you're trying to get a head start on your core courses or are just taking a class for fun, MSU offers a variety of summer courses that are sure to interest and challenge you.

Early Admission (concurrent high school/university attendance) allows a high-ability student who has not yet completed high school to take courses for university credit. If you have completed your sophomore year in high school, have a grade point average of at least 3.25, and have completed the majority of the college preparatory course work, you are welcome to apply.

### Early Admission Guidelines

#### Academic Eligibility

To be eligible for Early Admission, the applicant must:

1. Demonstrate ability to do university-level work in at least one academic area
2. Demonstrate a strong likelihood of success at university-level work in that area
3. Meet the course requirements for Early Admission set by the departments offering the courses to be attended

Normally such students will have completed the sophomore year in high school and will have a grade-point average of at least 3.25, documented on an official high school transcript.

### Application Procedure

Receipt of the following credentials in the Office of Admissions constitutes a complete application for admission. Requests to have final credentials sent to MSU must be initiated by the applicant. Requests should be made by contacting the high school, the registrar's office at the college/university, or the testing agency.

1. **Admissions Application:** An application for admission (<https://www.msuadmissions.org/application/index.cfm?&isndsl>) may be submitted online or downloaded and printed; if completing the paper application, please return the completed and signed application form to the Office of Admissions. The application may also be obtained from a high school counselor or from the Office of Admissions
2. **Application Fee:** An application fee is not required
3. **High School transcript:** An official transcript must be sent directly from the high school to the Office of Admissions. The transcript must post all courses completed and a minimum grade point average (GPA) of 3.25 and/or test scores listed below
4. **ACT/SAT scores:** An ACT score of 27 or an SAT score of 1820. Official ACT/SAT scores should be sent electronically directly to the Office of Admissions from the ACT/SAT testing agency. The MSU school code for ACT is 2420; the MSU school code for SAT is 4488
5. **Coursework:** Must have completed the majority of the College Preparatory coursework outlined under Freshmen Admission Requirements (<http://www.montana.edu/admissions/apply.shtml/#freshman>)
6. **Letter of Recommendation:** A letter must be submitted from the high school principal and/or guidance counselor recommending the student for Early Admission
7. **University Professor Recommendation:** A letter from a faculty member in the university department in which the course is to be taken must state that the student is prepared to take the course in question and is granted permission to do so
8. **Interview:** The MSU Early Admissions Committee must recommend acceptance in the Early Admission program. Applicants and their parents may be interviewed by the committee. Contact the Assistant Director of Admissions to schedule an interview: phone (406) 994-2452

### For More Information

#### Core courses offered during Summer 2016

#### General questions about Summer Session

Contact the Office of Summer Session (<http://www.montana.edu/summer>)

# Welcome to Bozeman

Home of Montana State University, Bozeman nestles against the Rocky Mountains in the heart of the scenic Gallatin Valley in southwestern Montana.

## Population

- 38,700 with an additional 15,000 Montana State University enrollment during the academic year.

One of the most diverse small towns in the Rocky Mountain West, Bozeman's residents are an eclectic mix of ranchers, artists, professors, ski enthusiasts and entrepreneurs drawn here by world-class outdoor recreation, Montana State University and a slice of old fashioned Americana. Bozeman prides itself in offering a small town feel with all the amenities and conveniences of a big city.

## Elevation & Summer Weather

- Elevation: 4,800 feet
- Average high summer temperatures: 70s and 80s
- Average low summer temperatures: mid 40s and low 50s
- Annual precipitation: 18.61 inches, one-third of which falls during May and June

Bozeman's climate reflects its mountain valley location. Summers are pleasant, characterized by warm days, cool nights, and an abundance of sunshine. Bozeman is one of the few areas of the country where the average summer climate is comfortable due to the moderate combined heat and humidity. Most summers have seven or fewer days with temperatures exceeding 90 degrees.

## City Attractions

- More than 100 shops, restaurants and coffeehouses lining a beautiful and historic retailing corridor in downtown Bozeman
- Art galleries, opera, symphony and ballet
- Theatre, including Shakespeare in the Parks and the Vigilante Theatre Company
- Sweet Pea Festival (an annual celebration of the arts) and the Gallatin County Fair
- Exceptional museums, including the Gallatin Pioneer Museum, the American Computer Museum, and the world-renowned Museum of the Rockies, featuring one of the finest paleontology collections in North America
- Ten city parks with picnic and playground areas, tennis courts, indoor and outdoor swimming pools, skateboard facilities and a BMX bike park
- Four golf courses in the city and surrounding area

## Transportation Services

- Interstate 90
- Greyhound Bus Lines (Belgrade)
- Streamline Transit Bus Service (servicing Bozeman and Belgrade)
- Gallatin Field Airport (8 miles northwest of Bozeman; serviced by Northwest, Delta, Horizon Air, Big Sky, and United Express airlines)

## Summer Outdoor Recreation

- Hiking & backpacking
- Rock climbing
- Mountain biking
- Fly fishing
- River rafting, kayaking & canoeing

- Wildlife viewing
- Photography
- Yellowstone National Park (west entrance 90 miles south of Bozeman)

Considered a winter mecca to skiers throughout the country, Bozeman is also renowned for its summer activities. Surrounded by four mountain ranges, thousands of acres of national forest, and hundreds of miles of blue ribbon trout streams, the area offers endless recreation opportunities.

## Awards & Distinctions

- 2006—America's #1 Dreamtown, Bizjournals Publications
- 2003—Fifth Best College Town (North America), *Outside Magazine*
- 2001—All-America City Award (one of 10 communities nationwide), American Civic League

Bozeman has been nationally recognized for its highly educated workforce, small business growth and strong local economy, civic excellence, intellectual and cultural activity, a world-class museum, its spectacular mountain setting and abundant outdoor recreation opportunities, and the overall outstanding quality of life.

# Special Summer Events

Summer 2016 brings special cultural events to MSU and the Bozeman community including musical and theatrical performances, historical exhibits, farmers' markets, and an arts festival. There's something for everyone here, so come join the fun!

## Music

### Lunch on the Lawn

#### July-August

Sponsored by the Emerson, this free lunch time concert series features a variety of musical styles including blues, jazz, rock, bluegrass and others. Also enjoy local food vendors, kid's activities, face painting and more! Join other music lovers on the Emerson's lawn, 111 S. Grand Ave., every Wednesday from 11:30 a.m.-1:30 p.m.

#### For more information:

Emerson Center for the Arts & Culture  
(406) 587-9797  
renee@theemerson.org  
www.TheEmerson.org (<http://www.TheEmerson.org>)

### Music on Main

#### June-August

Every Thursday evening, June 30-August 18, downtown Bozeman comes alive by featuring a different musical group from an eclectic range of talent. Local restaurants and food vendors join the festival by providing an assortment of dinner options, drinks and treats. Kids' activities begin at 6:30 p.m.; the free concerts begin at 7:00 p.m. and run through 8:30 p.m. Located on Main Street between Rouse and Black Avenues.

#### For more information:

Downtown Bozeman Association  
(406) 586-4008  
ellie@downtownbozeman.org  
www.downtownbozeman.org (<http://www.downtownbozeman.org>)

### Bozeman Community Concert Band

#### June-August

Beginning mid-June through early August, the Bozeman Community Concert Band presents concerts every Tuesday evening in the Bogert Park Band Shell, South Church Avenue. Programs use traditional concert band literature including overtures, medleys, Broadway show tunes, and marches. The membership of the band consists of students and adults from throughout the Gallatin Valley as well as MSU students and other guest performers.

#### For more information:

Department of Music  
(406) 994-3562  
music@montana.edu

## Theatre

### Shakespeare in the Parks

#### June-September

Montana Shakespeare in the Parks, a recipient of the 1991 Governor's Award for the Arts, is entering its 42nd season presenting live, professional theatre productions in parks throughout Montana and surrounding areas. Montana Shakespeare in the Parks is the only professional theatre program in the state producing Shakespearean plays that offers its performances free to the public, ensuring that all are able to attend regardless of income level or community size. Whether performing in Birney or Billings, Shakespeare in the Parks has become a major summer event in communities across the

region. A complete statewide tour schedule is available on the company's website.

#### For more information:

Shakespeare in the Parks  
(406) 994-3901  
info@shakespeareintheparks.org  
www.shakespeareintheparks.org (<http://www.shakespeareintheparks.org>)

## Celebration of the Arts

### Sweet Pea Festival 2015

#### August 5-7

The Sweet Pea Festival, now in its 39th year, takes its name from the Sweet Pea carnivals held in Bozeman more than a century ago. The Festival is a celebration of the arts and includes a parade, arts and crafts sales, a juried art show, children's activities, a flower show, a craft brew and wine garden, theatre, music and dance workshops and performances, and major evening concerts. Most activities are located in Lindley Park at the east end of Bozeman's Main Street. The Festival is supported by admission to the event (sold in advance or at the gates) and is run and organized by volunteers in the community.

Preceding the weekend Festival, Sweet Pea presents the annual **Bite of Bozeman** on Wednesday, Aug. 3 from 6:00-9:00 p.m. Come mingle on Main Street with your friends and family, enjoy the fine cuisine offered by more than 40 local restaurants, and listen to great local bands.

#### For more information:

Sweet Pea Festival  
(406) 586-4003  
admin@sweetpeafestival.org  
www.sweetpeafestival.org (<http://www.sweetpeafestival.org>)

## Art Walks

### June-September

Every second Friday of the month, June through September, meander down Main Street from 6:00 to 8:00 p.m. and investigate Bozeman's impressive collection of galleries. Meet artists at opening receptions or explore the past with some of the finest collections of Western art in the world. Live music while you stroll. Galleries feature wine and hors d'oeuvres.

#### For more information:

Downtown Bozeman Association  
(406) 586-4008  
ellie@downtownbozeman.org  
www.downtownbozeman.org (<http://www.downtownbozeman.org>)

## Museum Exhibits

### Museum of the Rockies

Museum of the Rockies (MOR) at Montana State University is a Smithsonian Affiliate and is accredited by the American Alliance of Museums.

Recognized for its vast collection of dinosaur fossils and its permanent regional history exhibits, MOR also thrills visitors with changing exhibits from around the world, the Martin Children's Discovery Center, the Living History Farm (open summers), and the Taylor Planetarium, featuring a state-of-the-art digital projection system.

The Siebel Dinosaur Complex at MOR is curated by Jack Horner, 2013 recipient of the Romer-Simpson Lifetime Achievement Award from the Society of Vertebrate Paleontology and scientific advisor on all of the Jurassic Park films. The Complex features more than 10,000 square feet of exhibit space, and many of its displays are based on the latest discoveries from the Museum's world-renowned paleontology program. It houses

specimens that span millions upon millions of years and range from *T. rex* to *Triceratops* and beyond.

### Changing Exhibits

For more information on MOR's changing exhibits, please visit [www.museumoftherockies.org](http://www.museumoftherockies.org). (<http://www.museumoftherockies.org>)

### Living History Farm

#### Open Memorial Day – Labor Day

Costumed interpreters share what life was like in 1890s Montana when you visit this historically accurate, working homestead, featuring a blacksmith shop, Heirloom Gardens, the original Tinsley house and more.

### Taylor Planetarium

From the colors of the cosmos to the brilliance and beauty of Montana's night skies, the Taylor Planetarium gives you an edge-of-your-seat look at the earth, the stars and the universe that surrounds us. One of only a handful of planetariums in the world to feature the advanced Digistar 5 projection system, the Taylor Planetarium provides a unique viewing experience to visitors young and old.

For current shows and showtimes, visit [www.museumoftherockies.org](http://www.museumoftherockies.org). (<http://www.museumoftherockies.org>)

### Museum Store

The Museum Store features the latest in "Made in Montana" gifts—including casual clothing, kids' toys, delicious treats, artisan jewelry, pottery, and soaps, as well as a wide variety of regional products. You'll also find a large selection of books that engage and children's toys that entertain based on Montana history and the Museum's latest exhibits. It's the perfect place to find just the right gift for kids of every age.

### Visiting the Museum

#### Location

On West Kagy between S. 7th and 3rd and directly next to Bobcat Stadium

#### Summer Hours

Open 8:00 a.m. to 8:00 p.m.

#### Admission

Admission fee is charged to non-members; MSU students receive a discount with valid student ID. For our latest admission fees, visit [www.museumoftherockies.org](http://www.museumoftherockies.org). (<http://www.museumoftherockies.org>)

#### For more information:

Museum of the Rockies  
600 W. Kagy Blvd., Bozeman  
(406) 994-2251  
[museum@montana.edu](mailto:museum@montana.edu)  
[www.museumoftherockies.org](http://www.museumoftherockies.org) (<http://www.museumoftherockies.org>)

### American Computer Museum

Open since 1990, the American Computer Museum in Bozeman is the world's oldest continually operating exhibition dedicated to the history of the Information Age. This award winning museum has assembled more than 5,000 years of technology through thousands of artifacts displayed in a visitor friendly environment. The exhibits are designed to appeal to both the novice and technology expert. See scores of displays including original Babylonian clay tablets, historic Bible leaves, and Isaac Newton's the *Principia* and the *Opticks*. Travel through the evolution of the information age with exhibits such as the telegraph, telephone, radio, television, slide rules, computers and computer technology—including the ENIAC, Apple I, the Internet, and DNA.

### Museum Location & Hours

#### Location

2023 Stadium Dr., Suite 1-A  
Bozeman

#### Summer Hours (June-August)

Daily: 10:00 a.m. to 4:00 p.m. (closed July 4th)

#### Admission

Free (donations welcomed)

#### Group Tours

Available by appointment

#### For more information:

American Computer Museum  
(406) 582-1288  
[director@compustory.com](mailto:director@compustory.com)  
[www.compustory.com](http://www.compustory.com) (<http://www.compustory.com>)

### The Gallatin History Museum

#### Gallatin Historical Society

The Gallatin History Museum of Bozeman, operated by the Gallatin Historical Society, promotes, fosters, and preserves the history of Gallatin County and southwest Montana. Located in the former county jail and listed on the national register of historic places, the museum features dozens of displays on various aspects of local history, including the American Indian, Lewis and Clark, Fort Ellis, fur traders, gold miners, pioneers, and settlers.

Indian tools and arrowheads are shown on the main floor, as is the impact of the Sioux War of 1876 and the trek of the Nez Perce under Chief Joseph in 1877.

The routes used by Lewis and Clark and some of the fauna and animals they discovered are part of a display that also features implements used by fur traders. There are also scale models of wagons, stagecoaches, and even a keelboat.

The Fort Ellis display explores the importance of the military post to the early growth and development of Bozeman. The museum's gun collection includes rifles and pistols manufactured in the 1800s by Remington and Sharps and a single-bore cannon used in fights against the Sioux nation in the Yellowstone Valley. The agricultural room has tools and implements used by early farmers, including a butter churn, sheep shears, a drill press, and a centrifuge.

An overview of every community in the county is available in the balcony area, as is a display on the history of the Sweet Pea Festival. A turn-of-the-century lady's parlor shows furniture and keepsakes treasured by 19th century Montana women. Visitors can also learn about the history of Montana State University and the earthquake-prone Gallatin Canyon.

Because the building was once the county jail, visitors will get to view jail cells and even a hanging gallows during their tour. The museum also houses a research center that stores nearly 18,000 historical photographs, as well as documents, newspapers, journals and diaries on local history. The museum bookstore holds hard-to-find books on southwest Montana history.

### Museum Location & Hours

#### Location

317 W. Main St., Bozeman

#### Hours

Labor Day to Memorial Day,

Tues. - Sat., 11 a.m.-4 p.m.  
Memorial Day to Labor Day,  
Mon. - Sat., 10 a.m. - 5 p.m.

### **Admission Fee**

\$5.00 per person (children age 12 and under, and Museum members admitted free)

### **For more information:**

Gallatin History Museum  
(406) 522-8122  
director@gallatinhistorymuseum.org  
www.gallatinhistorymuseum.org (<http://www.gallatinhistorymuseum.org>)

## **Farmers' Markets**

### **Bogert Farmers' Market**

#### **June-September**

Gather, socialize and share at a great community event, the Bogert Farmers' Market, held every Tuesday evening from 5:00-8:00 p.m. starting in early June. Locally grown produce, arts, crafts, music, food, family activities and more are featured each week at Bogert Park, South Church Avenue. The Market is a non-profit and commits its revenues to the preservation and improvement of Bozeman parks.

### **Volunteer and internship opportunities available.**

### **For more information:**

Bogert Farmers' Market  
(406) 539-0216  
www.bogertfarmersmarket.org (<http://www.bogertfarmersmarket.org>)

### **Gallatin Valley Farmers' Market**

#### **June-September**

The original Gallatin Valley Farmers' Market is a project of Career Transitions, a non-profit organization providing job search activities for the past 30 years. In addition to fresh vegetables, fruits, and herbs sold by local growers, the Gallatin Valley Farmers' Market offers arts and crafts, baked goods, jewelry, coffee, and beef and pork. Free and open to the public, the Market is held every Saturday morning, June 21-Sept. 13, from 9:00 a.m.-12:00 noon at the Gallatin County Fairgrounds on Tamarak Street.

### **For more information:**

Gallatin Valley Farmers' Market  
(406) 388-6701  
farmersmarket@careertransitions.com  
www.gallatinvalleyfarmersmarket.com (<http://www.gallatinvalleyfarmersmarket.com>)

## **County Fair**

### **Gallatin County Fair**

#### **July 18-24**

The Gallatin County Fair celebrates the Montana lifestyle with music, livestock, special entertainment, children's activities, competitive exhibits, carnival, food, agriculture education, class exhibits, 4-H exhibits and animals, rodeo, mud bog, dog contests and more. Located at 901 N. Black, Bozeman.

### **For more information:**

Gallatin County Fair  
(406) 582-3270  
www.gallatincountyfair.com (<http://www.gallatincountyfair.com>)  
facebook.com/gallatincountyfairgrounds (<http://www.facebook.com/gallatincountyfairgrounds>)  
Twitter@gcfFUN

## **Crazy Days**

### **Downtown Crazy Days**

#### **July 22-24**

It's the biggest, the best and the original—it's the Downtown Crazy Days on the third weekend in July. From 10:00 a.m. to 6:00 p.m., downtown merchants take to the sidewalks with unbelievable sales on spring and summer merchandise.

### **For more information:**

Downtown Crazy Days  
(406) 586-4008  
www.downtownbozeman.org (<http://www.downtownbozeman.org>)

## **Car Show**

### **"Cruisin' on Main"**

#### **Annual Car Show**

#### **August 21**

Car enthusiasts are invited to enter their vehicles in the "Cruisin' on Main" Annual Car Show. All classes are welcome. Entrants may preregister ahead of time or register on the day of the show. Dash plaques will be presented to the first 50 cars to register and trophies will be awarded in all classes including Best of Show. The Show is always held on the third Sunday of August, 9:00 a.m. to 3:00 p.m., on Main Street between Rouse and Willson Avenues.

### **For more information:**

"Cruisin' on Main"  
(406) 586-4008  
www.downtownbozeman.org (<http://www.downtownbozeman.org>)

# Summer Programs for Young People

## Office of Continuing Education

**For a brochure or more information contact:**

Nicole Soll

(406) 994-6633

ContinuingEd@montana.edu (ContinuingEd@montana.edu)

eu.montana.edu/ContinuingEd/youth

## Peaks and Potentials

### Grades 5-7, June 19-24

Peaks and Potentials is a residential/commuter camp designed for high ability/high potential students. Participants will select from a variety of workshops designed to provide academically challenging opportunities presented by university faculty and other qualified instructors. Recommendation from school personnel is required.

## Expanding Your Horizons in Math and Science (EYH)

**Dates:** April 9, 2016

**Cost:** \$30

**Grades:** 6th-8th grade girls

**Location:** Montana State University, Bozeman, MT

**Registration:** Opens February 2016

This one-day conference includes hands-on workshops in the fields of math and science for girls in grades 6, 7, and 8. The purpose of the program is to encourage young women to participate in these academic areas.

## Museum of the Rockies

### Kids' Summer Camps

Museum of the Rockies (MOR) offers week-long summer camps for children in elementary and middle school. Focusing on paleontology, space, homesteading and more, camp themes and activities draw on MOR's collections, research, and Living History Farm on the Museum's grounds. Registration opens in early January for MOR summer camps.

## Summer Daily Activities

There's always something interesting to do at the Museum of the Rockies.

From our Living History Farm, Native American Hall and Martin Children's Discovery Center to our Changing Exhibits, Taylor Planetarium and Siebel Dinosaur Complex, young people find a multitude of ways to learn and play at MOR every single day. For dates and details about specific programs and daily activities, please visit: [www.museumoftherockies.org](http://www.museumoftherockies.org) (<http://www.museumoftherockies.org>)

### For more information, contact:

Museum of the Rockies

(406) 994-5257

visitmor@montana.edu

[www.museumoftherockies.org](http://www.museumoftherockies.org) (<http://www.museumoftherockies.org>)

## MSU Extension Service

### Montana 4-H Congress

#### July 13-16

The annual Montana 4-H Congress will bring approximately 500 young people, volunteers and Extension professionals from around the state to the MSU campus for a week of educational activities and events. The program is co-sponsored by MSU Extension and the Montana 4-H Foundation.

**For more information contact:**

Your local county Extension agent or the 4-H Center for Youth Development

MSU Extension Service

210 Taylor Hall

Bozeman, MT 59717-3580

(406) 994-3501

[www.montana4h.org](http://www.montana4h.org) (<http://www.montana4h.org>)

## Community Programs

### Bozeman Parks and Recreation Department

The Bozeman Parks and Recreation Department offers a variety of programs, special events, and recreation classes in a variety of subjects for children, teens, adults and seniors. Children ages two and up may register for classes such as soccer, art, music and movement, Outdoor Adventure Skills, and many more. Outdoor fitness classes and leagues are available for teens and adults. Summer brochures are available in March.

### For more information contact:

Bozeman Parks and Recreation Department

P.O. Box 1230

Bozeman, MT 59771

(406) 582-2910

[www.bozeman.net/recreation](http://www.bozeman.net/recreation) (<http://www.bozeman.net/recreation>)

### Beall Park Recreation Center Rental

The Beall Park Recreation Center located at 415 N. Bozeman Ave. is available for the public to rent for meetings, dinners, and other special occasions. The Recreation Center is also home to the Recreation Department staff offices.

### Call for reservations:

Bozeman Parks and Recreation Department

(406) 582-2290

### Lindley Center Rental

The Lindley Center, located at 1102 E. Curtiss, is the City of Bozeman's Recreation Building and is available for the public to rent for meetings, dinners, receptions and other special occasions. The facility has two rooms and a kitchen.

### Call for reservations:

Bozeman Parks and Recreation Department

(406) 582-2290

### Bozeman Swim Center

The Bozeman Swim Center features a 50-meter indoor pool equipped with pool toys. There is also a fitness corner with stationary bikes and weight machines. The Center offers a variety of youth special events and family programs. The general public is invited to participate in water aerobics, lap swimming, recreation swimming, lessons, snorkeling, and a master's workout, swim team or synchronized swimming. The Center offers lifeguarding classes which include CPR for the professional rescuer, first aid, and AED certification.

### Call for pool hours and fees:

Bozeman Swim Center

1211 W. Main

(406) 582-2910

### Bogert Pool

Bogert Pool is a family outdoor facility. The pool is open for recreation swimming beginning at 1:00 p.m. each day with a fee of \$3.00 for youth and \$4.00 for adults. Youth swimming lessons are offered beginning in June.

**Check website for opening info:** [www.bozeman.net/recreation](http://www.bozeman.net/recreation) (<http://www.bozeman.net/recreation>)

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## ACT - Activities: General

### ACT 110. Beginning Weight Training. 1 Credit. (1 Lab; 3 cr max) F,S

Learn proper weight lifting techniques, how to create a personalized weight training program, and the basics of anatomy/physiology as they relate to weight lifting.

CRN	Section	Session/Dates	Days	Location	Time
11057	001	First Half Session	MW	MHFCLOBBY	1:45pm - 3:45pm
11113	002	Second Half Session	MWF	MHFCLOBBY	10:00am - 11:15am

### ACT 129. Circuit Training. 1 Credit. (1 Lab; 3 cr max) S

Learn different modes of fitness utilizing a timed sequence of exercises. This includes instruction on weight training and aerobic training. Students will gain knowledge on how to improve muscular strength, body composition, and cardiovascular endurance.

CRN	Section	Session/Dates	Days	Location	Time
11461	001	First Half Session	MWF	MHFCSTUDIO 3	7:00am - 8:15am

### ACT 150. Beginning Yoga. 1 Credit. (1 Lab; 3 cr max) F,S,Su

This class is designed for the beginning yoga student. Students will learn to demonstrate basic knowledge of yoga postures and philosophy, identify basic anatomy and principles of alignment and identify the values of mind-body fitness toward a healthy lifestyle. Pass/Fail.

CRN	Section	Session/Dates	Days	Location	Time
11030	001	First Half Session	MTWR	MHFCSTUDIO 3	8:45am - 9:35am
11114	002	Second Half Session	MTWR	MHFCSTUDIO 3	8:45am - 9:35am

### ACT 169. Beginning Tennis. 1 Credit. (1 Lab; 3 cr max) F,S,Su

Students will learn the rules of tennis and how to play singles and doubles. The instructor will teach the basic tennis strokes including forehand, backhand, overhead, volley, and the serve.

CRN	Section	Session/Dates	Days	Location	Time
11072	001	First Half Session	-	-	-

## ACTG - Accounting

### ACTG 201. Principles of Financial Acct. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: M 121Q or higher math course. An introduction to the principles of financial accounting for students of all business curricula. Specific topics include key accounting concepts, accounting transaction recording, financial statement preparation, accounting systems overview, business entity structures and financial statement analysis.

CRN	Section	Session/Dates	Days	Location	Time
10034	001	First Half Session	MTR	JABS111	7:30am - 9:50am

### ACTG 202. Principles of Managerial Accounting. 3 Credits. (3 Lec)F,S,Su

PREREQUISITE: ACTG 201. An introduction to the principles of managerial accounting. The majority of the semester will address managerial accounting, the process of providing information to managers for use in planning, control and decision making. Managerial accounting topics include product costing, cost-volume-profit analysis, budgeting, variance analysis, and decision analysis tools. The managerial accounting coverage will be preceded by a brief continuation of study of selected principles of financial accounting.

CRN	Section	Session/Dates	Days	Location	Time
10035	001	Second Half Session	MTR	JABS315	7:30am - 9:50am

### ACTG 223. Principles of Accounting II. 3 Credits. (3 Lec) F,S

PREREQUISITE: ACTG 201. A continuation of the financial accounting topics introduced in ACTG 201. The course helps students learn how to prepare and analyze financial statements, and understand the role that accounting plays in business decisions. Additional topics include: stock and bond investments, cash flow reporting, and a study of the conceptual framework and process by which accounting standards are established.

CRN	Section	Session/Dates	Days	Location	Time
10601	001	Second Half Session	MTR	JABS315	10:00am - 12:20pm

### ACTG 292. Independent Study. 1-3 Credits. (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Consent of instructor and approval of Associate Dean. Directed research and study on an individual basis. Not to be used as a substitute for a required course.

CRN	Section	Session/Dates	Days	Location	Time
10001	001	Full Semester	-	-	-
10002	002	First Half Session	-	-	-
10003	003	Second Half Session	-	-	-

### ACTG 492. Independent Study. 1-3 Credits. (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Formal admission to the College of Business, consent of instructor, and approval of Associate Dean. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Not to be used as a substitute for a required course. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10004	001	Full Semester	-	-	-
10005	002	First Half Session	-	-	-
10006	003	Second Half Session	-	-	-

### ACTG 498. Internship. 2-12 Credits. (2-12 Ind; 12 cr max) On Demand

PREREQUISITE: Formal admission to the College of Business and consent of instructor. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10007	001	Full Semester	-	-	-

### ACTG 515. Professional Services Mgmt. 3 Credits. (3 Lec)

On demand PREREQUISITE: Admission to the MPAC program or consent of instructor. This course is designed to expose students to the internal operations and client management efforts of professional services organizations and providers, with a particular focus on accounting firms. Topics include managing service relationships, service firm structure and the service-profit chain.

CRN	Section	Session/Dates	Days	Location	Time
10836	001	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-

### ACTG 524. International Accounting. 3 Credits. (3 Lec) On Demand

PREREQUISITE: ACTG 328 and admission to MPAC Program. Introduction to international accounting with special emphasis on four major topics: 1) accounting systems as expressions of cultural, political, and ideological forces, 2) comparative international accounting patterns, 3) efforts to harmonize international accounting standards worldwide, and 4) accounting issues faced by multinational corporations.

CRN	Section	Session/Dates	Days	Location	Time
10681	001	Non-standard term dates 16-MAY-16 03-JUN-16	MTWRF	JABS415	8:30am - 11:20am

### ACTG 575. Professional Paper and Project. 1-4 Credits. (1-4 Ind; 4 cr max) On Demand

PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10008	001	Full Semester	-	-	-

**ACTG 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Graduate standing, consent of instructor, approval of College of Business Associate Dean and The Graduate School Dean. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10695	001	Full Semester	-	-	-
10696	002	First Half Session	-	-	-
10697	003	Second Half Session	-	-	-

**ACTG 598. Internship. 1-3 Credits.** (1-3 Ind; 12 cr max) On Demand  
 PREREQUISITE: Graduate standing and consent of instructor. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10698	001	Full Semester	-	-	-

## AGBE - Agricultural Business and Econ

**AGBE 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10009	001	Full Semester	-	-	-

**AGBE 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S,Su  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their coursework (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10011	001	Full Semester	-	-	-

**AGBE 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10012	001	Full Semester	-	-	-

**AGBE 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand.  
 Maximum 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of the Graduate School. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10010	001	Full Semester	-	-	-

## AGED - Agricultural Education

**AGED 140US. Leadership Dev For Agriculture. 3 Credits.** (2 Lec, 1 Lab) F,S,Su  
 Process of developing and managing individuals by providing leadership and guidance at all levels of personnel development. Self-concepts developed through situational leadership and management, principles of people management, goal setting, and belief systems. Collaborative learning and field experience utilized.

CRN	Section	Session/Dates	Days	Location	Time
11021	001	First Half Session	TWR	LINH231	8:45am - 9:50am
11021	001	First Half Session	TW	LINH231	12:30pm - 2:50pm

**AGED 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
 Max 12 cr. IND May be repeated. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10435	001	Full Semester	-	-	-

**AGED 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10013	001	Full Semester	-	-	-
11396	002	Full Semester	-	-	-
11397	003	Full Semester	-	-	-

**AGED 494. Seminar. 3 Credits.** (3 Sem; 6 cr max) S  
 PREREQUISITE: Junior standing and as determined for each offering and consent of instructor. Focuses on planning and implementing agricultural activities for youth. The emphasis is on planning an event, developing awareness and utilization of resources (people and things), developing a log and records regarding the event, and evaluating the effectiveness of an implementation plan and the actual event.

CRN	Section	Session/Dates	Days	Location	Time
10524	001	Intersession	-	-	-

**AGED 498. Internship. 2-8 Credits.** (2-8 Ind; 12 cr max) On Demand  
 IND PREREQUISITE: Junior standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field of Agricultural Education.

CRN	Section	Session/Dates	Days	Location	Time
10014	001	Full Semester	-	-	-

**AGED 575. Prof Paper & Project. 1-4 Credits.** (1 Ind; 6 cr max) On Demand  
 IND Maximum 6 cr. PREREQUISITE: Graduate Standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student, the major advisor, and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10352	001	Full Semester	-	-	-

**AGED 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S,Su  
 IND PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their coursework (and thesis, if on a thesis plan), but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10353	001	Full Semester	-	-	-

**AGED 590. Master's Thesis. 1-10 Credits.** (1 Ind; 10 cr max) S,F  
 SU PREREQUISITE: Master's Standing.

CRN	Section	Session/Dates	Days	Location	Time
10314	001	Full Semester	-	-	-

**AGED 598. Internship. 2-12 Credits.** (2 Ind; 12 cr max) S,F  
 SU PREREQUISITE: Graduate Standing, consent of instructor, approval of department head and Dean of Graduate Studies. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10776	001	Full Semester	-	-	-

## AHMA - Allied Health: Medical Assist

**AHMA 280. Med Assisting Exam Prep. 1 Credit.** (1 Sem) Su  
 Preparation for the AMT (American Medical Technologists) registration exam and/or AAMA (American Association of Medical Assistants) certification exam.

CRN	Section	Session/Dates	Days	Location	Time
10803	001	Full Semester	-	-	-

**AHMA 298. Medical Assisting Externship. 4 Credits.** (4 Ind) Su  
 Prerequisites: AHMA 203 and AHMS 220 Practical experience in clinical medical environments under supervision.

CRN	Section	Session/Dates	Days	Location	Time
10804	001	Full Semester	-	-	-

## AHMS - Allied Health: Medical Support

**AHMS 144. Medical Terminology. 3 Credits.** (3 Lec) F  
 Offered by Gallatin College. Basic elements, rules of building and analyzing medical words, and medical terms associated with the body as a whole. In addition to medical terms, common abbreviations applicable to each body system will be interpreted.

CRN	Section	Session/Dates	Days	Location	Time
11042	001	First Half Session	TR	GCNB13	4:00pm - 7:10pm

## AMST - American Studies

**AMST 101D. Introduction to American Studies. 3 Credits.** (2 Lec, 1 Lab) F  
Introduction to the field of American Studies and to major issues in American history, literature, and the arts.

CRN	Section	Session/Dates	Days	Location	Time
11468	801	Second Half Session	-	-	-

**AMST 202RA. The Arts in America. 3 Credits.** (2 Lec) F,S  
PREREQUISITE: WRIT 101W. Uses the methodologies of American Studies to question the history, theory, and criticism of various American art forms and movements. Disciplines covered include: film, photography, television, sculpture, painting, architecture, and music.

CRN	Section	Session/Dates	Days	Location	Time
11288	098	First Half Session	-	-	-
11288	098	First Half Session	MTR	GCE2	5:15pm - 7:35pm
11470	801	Full Semester	-	-	-

**AMST 401R. Seminar in American Studies. 4 Credits.** (4 Sem) S to be offered even years.

PREREQUISITE: AMST 201. Capstone course in American Studies. Students will research and design solutions to contemporary problems in American Society.

CRN	Section	Session/Dates	Days	Location	Time
10869	801	First Half Session	-	-	-

**AMST 502. Research in American Studies. 3 Credits.** (3 Sem) F,S  
PREREQUISITE: AMST 501. Graduate research and advanced readings in American Studies.

CRN	Section	Session/Dates	Days	Location	Time
11049	801	First Half Session	-	-	-

**AMST 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10683	001	Full Semester	-	-	-

**AMST 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
Max credits unlimited PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10682	001	Full Semester	-	-	-

## ANSC - Animal Science

**ANSC 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11413	001	Full Semester	-	-	-

**ANSC 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10436	001	Full Semester	-	-	-

**ANSC 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10024	001	Full Semester	-	-	-
10025	002	First Half Session	-	-	-

**ANSC 498. Internship. 1-12 Credits.** (2-12 Ind; 12 cr max) On Demand  
PREREQUISITE: Junior standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10026	001	Full Semester	-	-	-
10356	002	Full Semester	-	-	-

## ANTY - Anthropology

**ANTY 101D. Anthropology and the Human Experience. 3 Credits.** (3 Lec) F,S  
Comparative focus on human behavior and human cultural systems from the local to global levels. The nature and sources of diversity associated with the human experience are explored and reinforced using examples from archaeology, biological anthropology, cultural anthropology, and linguistics.

CRN	Section	Session/Dates	Days	Location	Time
11163	801	First Half Session	-	-	-

**ANTY 225IS. Culture, Language, and Society. 3 Credits.** (3 Lec) F,S  
The nature of culture through selected societies: symbolism and world view as related to cultural dynamics and representational forms. A survey of social practices, linguistic and cultural representations, exchange, identity, and the dynamics of power.

CRN	Section	Session/Dates	Days	Location	Time
11128	001	First Half Session	-	-	-

**ANTY 252IS. Mysteries of the Past. 3 Credits.** (3 Lec) F  
Focuses on archaeological thinking and the use of the scientific method in archaeology. Examines a variety of archaeological and pseudo archaeological claims from this perspective.

CRN	Section	Session/Dates	Days	Location	Time
10856	801	First Half Session	-	-	-

**ANTY 467. Archaeology Field School. 1-9 Credits.** (1-9 Lec; 9 cr max) Su  
On demand PREREQUISITE: ANTY 101. A summer of archaeological field work at a location away from the University; training in excavation and laboratory methods. (Offered when funding available).

CRN	Section	Session/Dates	Days	Location	Time
11498	001	Second Half Session	-	-	-

**ANTY 490R. Undergraduate Research and Instruction. 1-6 Credits.** (1 Ind; 12 cr max) F

S, Su Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10437	001	Full Semester	-	-	-

**ANTY 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10015	001	Full Semester	-	-	-
10016	002	First Half Session	-	-	-
10017	003	Second Half Session	-	-	-

## ARCH - Architecture

**ARCH 121IA. Introduction to Design. 3 Credits.** (2 Lec) F,S,Su  
PREREQUISITE: For majors and non-majors. Introduction to the design and creative process through global architecture and allied professions. Exploration of the history of design. Emphasis on 20th and 21st century architecture. Individual projects where students apply and explore creative process are required.

CRN	Section	Session/Dates	Days	Location	Time
10429	001	Second Half Session	TR	CHVR131	8:00am - 10:15am
10430	002	Second Half Session	TR	CHVR131	10:25am - 12:15pm

**ARCH 151RA. Design Fundamentals I. 4 Credits.** (2 Lec, 2 Lab) F,Su  
A study of the creative design process with emphasis on two-dimensional design, basic three dimensional design concepts and introduction to the essential tools for graphic communication. Development of students' self-critical skills.

CRN	Section	Session/Dates	Days	Location	Time
10456	001	First Half Session	MWF	-	1:30pm - 4:50pm

**ARCH 152. Design Fundamentals II. 4 Credits.** (3 Stu, 1 Rct) S,Su  
 A study of the design process and methods employed by design disciplines as an introduction to architectonic principles, architectural graphic skills and further understanding of the creative process. Development of student's ability to make critical and analytical judgments.

CRN	Section	Session/Dates	Days	Location	Time
10285	001	Second Half Session	MWF	-	8:00am - 11:30am

**ARCH 253. Architectural Design I. 5 Credits.** (1 Lec, 4 Lab) F  
 PREREQUISITE: ARCH 152 Formal admission into the environmental design program. Small-scale design projects requiring integration of spatial, visual concepts, emphasizing relationship of architecture to its context with principles of order, constituents of form, light, structural awareness, nature of materials, architectural coherency. Includes inclusive orthographic graphics design drawing conventions.

CRN	Section	Session/Dates	Days	Location	Time
11155	001	Full Semester	MTR	CHVR207	8:00am - 11:30am

**ARCH 254. Architectural Design II. 5 Credits.** (1 Lec, 4 Lab) S  
 PREREQUISITE: ARCH 253 Small to medium-size projects extending the development of the design process to site and adjacency analysis, diagramming, fundamental relationship to landscape and context. Topics include hybrid uses of hand and digital graphic communication including 2D and 3D drawing and modeling.

CRN	Section	Session/Dates	Days	Location	Time
11156	001	Full Semester	MTR	CHVR207	8:00am - 11:30am

**ARCH 290R. Undergraduate Research. 1-6 Credits.** (1-6 Ind; max unlimited) F,S  
 Directed undergraduate research/creative activity which may culminate in a written work or other creative project. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10575	001	Second Half Session	TR	CHVR108	2:00pm - 4:00pm
10585	002	Full Semester	-	-	-

**ARCH 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Consent of instructor and approval of department head. Directed study and research on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10018	001	Full Semester	-	-	-
10019	002	First Half Session	-	-	-
10020	003	Second Half Session	-	-	-

**ARCH 355. Architectural Design III. 5 Credits.** (1 Lec, 4 Lab) F  
 PREREQUISITE: ARCH 254. Further exploration of ecologically-sound design with emphasis on the integration of structures, building envelope service systems, and building materials, including design for life safety and accessibility. Building scale and program complexity increases, utilizing long-span structural systems. Notebook computer required. Field trip required.

CRN	Section	Session/Dates	Days	Location	Time
11157	001	Full Semester	MTR	CHVR207	8:00am - 11:30am

**ARCH 356. Arch Design IV. 5 Credits.** (1 Lec, 4 Lab) S  
 PREREQUISITE: ARCH 355. Advanced architectural design projects integrating site analysis, programming, building systems, and contemporary design theory. Emphasis placed on the inclusive synthesis of conceptual processes, analysis preliminary design investigation, and design development. Notebook computer required.

CRN	Section	Session/Dates	Days	Location	Time
11508	001	Full Semester	MTR	CHVR207	8:00am - 11:30am

**ARCH 414. Architectural Study Abroad. 9 Credits.** (6 Lec, 3 Ind) S,Su  
 PREREQUISITE: ARCH 355. COREQUISITE: ARCH 428. Structured study in foreign countries under the direction of an architecture faculty member to obtain an understanding of modern and historical architecture and the forces shaping them. Holistic study of urban environments combines design, urban design, architectural history, drawing, and pre-travel design and research. Itineraries include opportunities for additional destinations and independent travel.

CRN	Section	Session/Dates	Days	Location	Time
10881	001	Full Semester	-	-	-
11247	002	Full Semester	-	-	-

**ARCH 425. West Architectural History. 3 Credits.** (3 Sem; 6 cr max) On Demand  
 PREREQUISITE: ARCH 322 and ARCH 323. A study of events and influences that led to the development of western architectural styles, ideology, and forms of individual expression.

CRN	Section	Session/Dates	Days	Location	Time
10653	001	Full Semester	-	-	-

**ARCH 426. History of Identity of Contemporary Places. 3 Credits.** (3 Lec; 6 cr max) On Demand  
 PREREQUISITE: ARCH 322 and ARCH 323. A course in applied architectural history and theory. Lectures, discussions, and student projects investigate characteristics which convey a sense of place based on historical development, architectural styles, and urban design.

CRN	Section	Session/Dates	Days	Location	Time
10654	001	Full Semester	-	-	-

**ARCH 428. Foreign Study History. 3 Credits.** (2 Lec, 1 Ind) S,Su  
 PREREQUISITE: ARCH 322 and ARCH 323. COREQUISITE: ARCH 414. An on-site study in a foreign country of the social, cultural, and historic influences on architectural design. This course is only offered in conjunction with the foreign study program within the School of Architecture. Course shall include research on-site visits documented in an appropriate media form.

CRN	Section	Session/Dates	Days	Location	Time
10882	001	Full Semester	-	-	-
11160	002	Full Semester	-	-	-

**ARCH 431. Sustainability in Architecture. 3 Credits.** (3 Lec) F,Su  
 PREREQUISITE: ARCH 332 and ARCH 356. Architectural and site strategies for reducing the energy footprint of structures and spaces with an emphasis on the profession's ethical responsibility and techniques that maximize the potential of active and passive design strategies to sustain our natural resources.

CRN	Section	Session/Dates	Days	Location	Time
11511	001	Full Semester	-	-	-

**ARCH 450. Community Design Center. 5 Credits.** (1 Lec, 4 Lab) S,Su  
 PREREQUISITE: ARCH 355. The CDC assists public and non-profit groups by providing planning, programming, and conceptual design ideas. Emphasis and scope of projects are determined by the community needs. Projects are intended to complement and promote the professional practice of architecture in the State of Montana.

CRN	Section	Session/Dates	Days	Location	Time
10883	001	Full Semester	MTR	CHVR120	8:00am - 11:30am
11158	002	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-

**ARCH 451. Design for Community. 3 Credits.** (3 Ind; 6 cr max) On Demand  
 PREREQUISITE: ARCH 355. Students will be engaged in architecturally-related activities with government and non-profit agencies. This will enable students to be involved in a service learning academic experience.

CRN	Section	Session/Dates	Days	Location	Time
11236	001	First Half Session	-	-	-
11237	002	Second Half Session	-	-	-

**ARCH 457. Architectural Design V. 5 Credits.** (1 Lec, 4 Lab) S  
 PREREQUISITE: ARCH 356. Senior capstone course. Architectural design integrating building, landscape, and urban context using multi-story projects of medium scale and complexity with particular focus on mixed-use. Integrated topics include programming structural and mechanical integration, ecologically-sound design, building envelope systems and building codes.

CRN	Section	Session/Dates	Days	Location	Time
11509	001	Full Semester	MTR	CHVR207	8:00am - 11:30am

**ARCH 458. Arch Design VI. 5 Credits.** (1 Lec, 4 Lab; 12 cr max) On Demand  
 PREREQUISITE: ARCH 355. A continuation of the holistic design synthesis encountered in ARCH 457 with emphasis on development of student's emerging design values and theoretical perspective. Field trip possible. Notebook computer required.

CRN	Section	Session/Dates	Days	Location	Time
10655	001	Full Semester	-	CHVR145	-

**ARCH 471. Directed Research/Creative Act. 1-6 Credits.** (1-6 Ind; max unlimited) F,S,Su

COREQUISITE: ARCH 472. Directed research/creative activity which may culminate in a research paper, journal article, or design project. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10325	001	Full Semester	-	-	-
10611	002	Full Semester	-	-	-
10657	003	Full Semester	-	-	-
10658	004	Full Semester	-	-	-

**ARCH 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10021	001	Full Semester	-	-	-
10022	002	First Half Session	-	-	-
10023	003	Second Half Session	-	-	-

**ARCH 494. Seminar. 1-3 Credits.** (1-3 Sem; 4 cr max) F,S,Su

PREREQUISITE: Junior standing and as determined for each offering. Topics offered at the upper division level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

CRN	Section	Session/Dates	Days	Location	Time
10635	001	Second Half Session	-	-	-

**ARCH 498. Internship. 6 Credits.** (12 Ind) F,S,Su

PREREQUISITE: ARCH 340, ARCH 355 and all other architectural courses through the third year. Students arrange for employment in an architectural office for a continuous period of 12 weeks. Students will participate in a structured work/study professional practice experience and are required to present the content of this experience upon their return to campus.

CRN	Section	Session/Dates	Days	Location	Time
11510	001	Full Semester	-	-	-

**ARCH 521. Arch Theory. 3 Credits.** (3 Sem; 9 cr max) On Demand

PREREQUISITE: Graduate standing or seniors by petition. Specific architectural, urban, planning and preservation theories, their application and context within contemporary practice will be investigated through the study of essays, drawings, models and built projects. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10761	001	First Half Session	MW	CHVR131	1:00pm - 5:00pm
10762	002	Second Half Session	-	-	-

**ARCH 522. Historical Issues in Arch. 3 Credits.** (3 Sem; max unlimited) On Demand

PREREQUISITE: ARCH 322, ARCH 323. Graduate standing or seniors by petition. Close examination of historic periods and individuals. Emphasis upon in-depth studies of particular personalities and the social, cultural, artistic and scientific developments that influenced the progress of architecture, urban design and city planning. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10574	001	First Half Session	-	-	-
10763	002	Second Half Session	MW	CHVR131	1:00pm - 5:00pm

**ARCH 525. Special Design Topic. 3 Credits.** (3 Lab; 12 cr max) On Demand

PREREQUISITE: ARCH 355 and consent of instructor. Admission to graduate program or seniors by petition. Students will work under the direction of a faculty member in the research, design, development and presentation of a design, research, or historic preservation project. May be repeated as topics vary.

CRN	Section	Session/Dates	Days	Location	Time
10636	001	First Half Session	-	-	-
10637	002	Full Semester	-	-	-
10764	003	Second Half Session	-	-	-
10765	004	Second Half Session	-	-	-

**ARCH 527. Architecture: Meaning & Place. 3 Credits.** (3 Sem; 9 cr max)

On demand Close examination of the psychological, existential and traditional meaning and consequential sense of place in our natural and built environment.

CRN	Section	Session/Dates	Days	Location	Time
11161	001	First Half Session	-	-	-

**ARCH 543. Advanced Applied Design and Construction. 3 Credits.** (3 Lab; max unlimited) On Demand

PREREQUISITE: ARCH 241, consent of instructor, and graduate standing or seniors by petition. Small scale projects industrial products, furniture, buildings, etc., will be designed and built by students as an exploration of the opportunities and limitations of materials, technology, economics, and construction methods.

CRN	Section	Session/Dates	Days	Location	Time
10766	001	First Half Session	MW	CHVR108	1:00pm - 5:30pm
10767	002	Second Half Session	M	CHVR108	1:00pm - 3:00pm
10767	002	Second Half Session	W	CHVR108	1:00pm - 5:30pm
11162	003	First Half Session	-	-	-

**ARCH 551. Advanced Arch Studio. 6 Credits.** (4 Lab, 2 Stu) S,Su

PREREQUISITE: ARCH 558. Design projects which explore specific critical positions with regard to contemporary architectural issues. Research and analysis of theoretical positions are emphasized along with the development of contemporary methods and techniques for analysis. Field trip required.

CRN	Section	Session/Dates	Days	Location	Time
10659	001	Full Semester	MTR	CHVR145	8:00am - 11:30am
10768	002	Full Semester	MTR	CHVR145	8:00am - 11:30am
10769	003	Full Semester	MTR	CHVR145	8:00am - 11:30am
10770	004	Full Semester	MTR	CHVR145	8:00am - 11:30am

**ARCH 552. Arch Research Methods. 3 Credits.** (3 Sem) F,S,Su

PREREQUISITE: Graduate standing or seniors by petition. An examination of the types of inquiry used to conduct architectural research. Students will engage in initial studies of traditional and non-traditional research methods in architecture and its related fields followed by an individual research project.

CRN	Section	Session/Dates	Days	Location	Time
10660	001	Full Semester	-	-	-

**ARCH 558. Comprehensive Design Studio. 6 Credits.** (4 Lab, 2 Stu) F

PREREQUISITE: Graduate Standing. COREQUISITE: ARCH 535. Comprehensive architectural studio which integrated design thinking and investigative skills with site design, accessibility and life safety, sustainability and environmental, and structural systems in the design and presentation of a programmatically complex building.

CRN	Section	Session/Dates	Days	Location	Time
10771	001	Full Semester	MTR	-	8:00am - 11:30am
10772	002	Full Semester	MTR	CHVR145	8:00am - 11:30am

**ARCH 564. Adv Arch Graphics. 3 Credits.** (3 Lab; max unlimited) F

Su PREREQUISITE: ARCH 262, admission to graduate program or seniors by petition. Advanced architectural presentation strategies for exploring visual perception and design development through graphic exploration. May be taken more than once as topics vary.

CRN	Section	Session/Dates	Days	Location	Time
10500	001	Second Half Session	F	LINH233	9:00am - 1:40pm
10500	001	Second Half Session	W	LINH233	1:00pm - 3:00pm

**ARCH 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind; 3 cr max) F,S,Su

PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10301	001	Full Semester	-	-	-

**ARCH 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su

PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10582	001	Full Semester	-	-	-
10621	002	Full Semester	-	-	-

## ARNR - Animal & Range Natural Res

**ARNR 529. Yellowstone Wildlife Habitat Ecology. 2 Credits.** (2 Lec) Su  
 PREREQUISITE: WILD 426 OR WILD 428 or equivalent. This course will describe the native communities of the internationally prominent northern Yellowstone winter range for wild ungulates. The ecology of many organisms, both plant and animal will be studied. Plant identification skills will be incorporated with an emphasis on the recognition of the Yellowstone northern range's flora and its importance as wildlife habitat. Ecosystem interrelationships will form the basis for understanding the ecology of the range and interpreting the consequences of management alternatives.

CRN	Section	Session/Dates	Days	Location	Time
10867	001	Intersession	-	-	-

**ARNR 575. Prof Paper & Project. 1-4 Credits.** (1-4 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major adviser and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10027	001	Full Semester	-	-	-

**ARNR 589. Graduate Consultation. 3 Credits.** (3 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10028	001	Full Semester	-	-	-

**ARNR 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10029	001	Full Semester	-	-	-

**ARNR 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; 10 cr max) F,S,Su  
 PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10340	001	Full Semester	-	-	-

## ARTH - Art: Art History

**ARTH 201IA. Art of World Civilization II. 4 Credits.** (3 Lec) S

A survey of Renaissance, Baroque, and 19th and 20th century art which focuses on the evolution of humanistic expression and the emergence of the artist as an individual responding to the impact of modern society.

CRN	Section	Session/Dates	Days	Location	Time
10397	001	Second Half Session	MTR	ROBH209	1:45pm - 4:05pm

**ARTH 310. Ancient Art Mesoamerica. 3 Credits.** (3 Lec) Su alternate years to be offered even years A comparative survey that will examine the art and architecture of selected cultures of Mesoamerica, Central America and South America, commonly grouped under the designation of New World civilizations. The material presented will focus on the Aztecs and Maya of Mesoamerica (southern Mexico and northern Central America) and the Incas of Central Andes of South America.

CRN	Section	Session/Dates	Days	Location	Time
10846	001	Second Half Session	MTR	GH030	8:45am - 11:05am

**ARTH 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor, and approval of the director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10777	001	Full Semester	-	-	-
10780	002	Full Semester	-	-	-
10782	003	Full Semester	-	-	-

**ARTH 591. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand  
 PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11374	001	Full Semester	-	-	-

## ARTZ - Art: Visual Arts

**ARTZ 105RA. Visual Language - Drawing. 3 Credits.** (6 Stu) F,S

The development of basic drawing skills and concepts through an emphasis on observation and visual problem-solving. Representation and expression are explored through black and white drawing media. Critiques develop student's ability to formulate and verbalize knowledgeable responses to visual production.

CRN	Section	Session/Dates	Days	Location	Time
11117	001	First Half Session	MTWR	HAYH107	1:45pm - 5:00pm

**ARTZ 109RA. Visual Language: Comprehensive Foundation. 4 Credits.** (1 Lec, 3 Std) F

PREREQUISITE: Consent of instructor. The development of basic two-dimensional and three-dimensional technical and aesthetic concepts through an emphasis on design elements and principles. Visual problem-solving in 2D pictorial construction, 3D form and space, and color theory. Critiques develop student's ability to formulate and verbalize knowledgeable responses to visual production. Required weekly lecture on various aspects of visual arts practice. Art Department.

CRN	Section	Session/Dates	Days	Location	Time
11417	001	First Half Session	MTWR	-	8:45am - 1:00pm

**ARTZ 110RA. Visual Language: Ideation and Creativity. 4 Credits.** (1 Lec, 3 Std) S

Development and understanding of processes for ideation and creative thinking to generate questions and solutions. Develop basic abilities to interpret, recognize, construct, appreciate and negotiate information presented in the form of visible actions, images, objects and symbols, natural or human-made.

CRN	Section	Session/Dates	Days	Location	Time
11416	001	Second Half Session	MTWR	-	8:45am - 1:00pm

**ARTZ 221. Painting I. 4 Credits.** (2 Lec, 2 Lab) F,S

PREREQUISITE: ARTZ 106, ARTZ 105. Introduction to oil and/or acrylic painting. Exploration of basic aesthetic and technical concepts in painting. Primarily representational subject matter. Understanding and developing individual stylistic tendencies. Individual and group critiques.

CRN	Section	Session/Dates	Days	Location	Time
11483	001	Full Semester	-	-	-

**ARTZ 231RA. Ceramics I. 4 Credits.** (2 Lec, 2 Lab) F,S

PREREQUISITE: ARTZ 108. Contemporary ceramics - the history, development, and aesthetics of ceramic vessels and sculpture. The technical aspects of clay, glazes, and the firing of ceramic objects. Problem solving and the development of ideas.

CRN	Section	Session/Dates	Days	Location	Time
11118	001	First Half Session	-	-	-

**ARTZ 291. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand  
 PREREQUISITE: None required but some may be determined necessary by each offering department. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11135	001	Full Semester	-	-	-

**ARTZ 292. Independent Study. 1-3 Credits.** (.5-1.5 Lab; 6 cr max) On Demand  
 PREREQUISITE: Consent of instructor and approval of the director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10030	001	Full Semester	-	-	-
10031	002	First Half Session	-	-	-
10032	003	Second Half Session	-	-	-

**ARTZ 322. Intermediate Painting. 5 Credits.** (3 Std, 2 Rct; 15 cr max) F,S

PREREQUISITE: ARTZ 221. Advanced technical and aesthetic concepts. Emphasis on the development of a personal artistic style. Use of traditional and non-traditional subject matter. Individual and group critiques.

CRN	Section	Session/Dates	Days	Location	Time
11484	001	Full Semester	-	-	-

**ARTZ 374. Intermediate Printmaking - Serigraphy. 5 Credits.** (2 Lec, 3 Std; 15 cr max) S

PREREQUISITE: ARTZ 271. An intermediate course in which multiple original, multi-colored prints are made using various water-based silk-screen processes. Stencil techniques include paper, screen filler, drawing fluid, and photo.

CRN	Section	Session/Dates	Days	Location	Time
11119	001	Second Half Session	-	-	-

**ARTZ 411. Guided Research- Drawing. 1-5 Credits.** (1-5 Ind; 15 cr max) F,S,Su  
PREREQUISITE: ARTZ 312. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of drawing. Written, signed contract required prior to registering for this course.

CRN	Section	Session/Dates	Days	Location	Time
10039	001	Full Semester	-	-	-
10040	002	Full Semester	-	-	-

**ARTZ 421. Guided Research- Painting. 1-5 Credits.** (1-5 Ind; 15 cr max) F,S,Su  
PREREQUISITE: ARTZ 322. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of painting. Written, signed contract required prior to registering for this course.

CRN	Section	Session/Dates	Days	Location	Time
10041	001	Full Semester	-	-	-

**ARTZ 431. Guided Research- Ceramics. 1-5 Credits.** (1-5 Ind; 15 cr max) F,S,Su  
PREREQUISITE: ARTZ 332. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of ceramics. Written, signed contract required prior to registering for this course. Department of Art.

CRN	Section	Session/Dates	Days	Location	Time
10045	001	Full Semester	-	-	-

**ARTZ 453. Guided Research- Sculpture. 1-5 Credits.** (1-5 Ind; 15 cr max) F,S,Su  
PREREQUISITE: ARTZ 352. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of sculpture. Written, signed contract required prior to registering for this course.

CRN	Section	Session/Dates	Days	Location	Time
10042	001	Full Semester	-	-	-
10639	002	Full Semester	-	-	-

**ARTZ 461. Guided Research-Metalsmithing. 1-5 Credits.** (1-5 Ind; 15 cr max) F,S,Su

PREREQUISITE: ARTZ 361. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of metalsmithing. Written, signed contract required prior to registering for this course.

CRN	Section	Session/Dates	Days	Location	Time
10043	001	Full Semester	-	-	-

**ARTZ 472. Guided Research- Printmaking. 1-5 Credits.** (1-5 Ind; 15 cr max) F,S,Su

PREREQUISITE: ARTZ 373 or 374, ARTZ 376, ARTZ 375, ARTZ 379. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of printmaking. Written, signed contract required prior to registering for this course.

CRN	Section	Session/Dates	Days	Location	Time
10044	001	Full Semester	-	-	-

**ARTZ 491. Special Topics. 1-5 Credits.** (1-5 Lec; 12 cr max) On Demand  
PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11133	002	Second Half Session	-	-	-
11134	003	Full Semester	-	-	-

**ARTZ 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
PREREQUISITE: Junior standing, consent of instructor, and approval of the director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10778	001	Full Semester	-	-	-
10779	002	Full Semester	-	-	-
10781	003	Full Semester	-	-	-

**ARTZ 498. Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) On Demand  
PREREQUISITE: Junior standing, consent of instructor, and approval of the director. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10280	001	Full Semester	-	-	-
10591	002	Full Semester	-	-	-

**ARTZ 499R. Senior Thesis: Studio. 1-5 Credits.** (1 Ind; 12 cr max) F,S,Su  
Senior capstone course. Directed undergraduate research/creative activity which may culminate in a research paper, undergraduate thesis paper, or undergraduate thesis exhibition. Graphic design students must take this course in the spring. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10398	001	Full Semester	-	-	-

**ARTZ 505. Painting. 1-5 Credits.** (1-5 Ind) F,S,Su  
Maximum 15 cr PREREQUISITE: ARTZ 421, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of painting.

CRN	Section	Session/Dates	Days	Location	Time
10281	001	Full Semester	-	-	-

**ARTZ 515. Ceramics. 1-5 Credits.** (1-5 Ind) F,S,Su  
Maximum 15 cr PREREQUISITE: ARTZ 431, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of ceramics.

CRN	Section	Session/Dates	Days	Location	Time
10282	001	Full Semester	-	-	-

**ARTZ 524. Metalsmithing. 1-5 Credits.** (1-5 Ind) F,S,Su  
Maximum 15 cr PREREQUISITE: ARTZ 461, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of metalsmithing.

CRN	Section	Session/Dates	Days	Location	Time
10283	001	Full Semester	-	-	-

**ARTZ 526. Drawing. 1-5 Credits.** (1-5 Ind) F,S,Su  
Maximum 15 cr PREREQUISITE: ARTZ 411, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of drawing.

CRN	Section	Session/Dates	Days	Location	Time
10284	001	Full Semester	-	-	-

**ARTZ 527. Printmaking. 1-5 Credits.** (1-5 Ind) F,S,Su  
Maximum 15 cr PREREQUISITE: ARTZ 472, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of printmaking.

CRN	Section	Session/Dates	Days	Location	Time
10077	001	Full Semester	-	-	-
10078	002	Full Semester	-	-	-

**ARTZ 529. Sculpture. 1-5 Credits.** (1-5 Ind) F,S,Su  
Maximum 15 cr PREREQUISITE: ARTZ 453, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of sculpture.

CRN	Section	Session/Dates	Days	Location	Time
10079	001	Full Semester	-	-	-
10318	002	Full Semester	-	-	-

**ARTZ 530. Intermedia. 1-5 Credits.** (1-5 Ind) F,S,Su

Maximum 15 cr PREREQUISITE: ARTZ 352, ARTZ 312, ARTZ 322 and graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of intermedia.

CRN	Section	Session/Dates	Days	Location	Time
10080	001	Full Semester	-	-	-
10592	002	Second Half Session	-	-	-

**ASTR - Physics-Astronomy****ASTR 110IN. Introduction to Astronomy: Mysteries of the Sky. 3 Credits.** (3 Lec) F,S,Su

An introduction to contemporary astronomy that explores the nature, methods, and limitations of scientific inquiry within the context of our struggle to understand the structure and evolution of the Universe. Topics include the history of astronomy, motions of the night sky, the solar system, stellar evolution, galaxies, and cosmology.

CRN	Section	Session/Dates	Days	Location	Time
10372	001	Second Half Session	MTWR	EPS108	10:00am - 11:05am
10372	001	Second Half Session	MW	EPS108	11:15am - 12:20pm

**BCH - Biochemistry****BCH 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10081	001	Full Semester	-	-	-
10082	002	First Half Session	-	-	-
10083	003	Second Half Session	-	-	-

**BCH 380. Biochemistry. 5 Credits.** (4 Lec, 1 Lab) F,S,Su

PREREQUISITE: BIOB 160 or BIOB 260, and CHMY 211 or CHMY 323 or CHMY 333. Carbohydrate, lipid, protein, and nucleic acid structure and function; enzyme kinetics; energetics; major metabolic pathways for carbohydrates, lipids, and amino acids; photosynthesis; regulation of gene function.

CRN	Section	Session/Dates	Days	Location	Time
10084	001	First Half Session	MTWRF	GH243	8:00am - 9:45am
10085	002	First Half Session	TR	GH349	1:00pm - 3:50pm
10086	003	First Half Session	TR	GH349	10:00am - 12:50pm
10813	050	Full Semester	-	-	-
11284	004	First Half Session	MW	GH349	10:00am - 12:50pm

**BCH 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su

Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10426	001	Full Semester	-	-	-
10427	002	First Half Session	-	-	-
10428	003	Second Half Session	-	-	-

**BCH 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10087	001	Full Semester	-	-	-
10088	002	First Half Session	-	-	-
10089	003	Second Half Session	-	-	-

**BCH 575. Professional Paper. 1-6 Credits.** (1-6 Ind; 6 cr max) F,S

PREREQUISITE: Consent of instructor. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10814	001	Second Half Session	-	-	-

**BCH 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su

PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10090	001	Full Semester	-	-	-
10091	002	First Half Session	-	-	-
10092	003	Second Half Session	-	-	-

**BCH 592. Independent Study. 1-3 Credits.** (1 Ind; 3 cr max) On Demand

PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10699	003	Second Half Session	-	-	-
10700	002	First Half Session	-	-	-
10701	001	Full Semester	-	-	-

**BCH 689. Grad Research/Instruction. 1-3 Credits.** (1-3 Lec; 3 cr max) F,S,Su

PREREQUISITE: Graduate standing. COREQUISITE: BCH 590 or BCH 690. Classroom instruction associated with directed graduate research/creative activity projects.

CRN	Section	Session/Dates	Days	Location	Time
10093	001	Full Semester	-	-	-

**BCH 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su

PREREQUISITE: PhD standing.

CRN	Section	Session/Dates	Days	Location	Time
10094	001	Full Semester	-	-	-
10095	002	First Half Session	-	-	-
10096	003	Second Half Session	-	-	-

**BFIN - Business Finance****BFIN 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Consent of instructor and approval of Associate Dean. Directed research and study on an individual basis. Not to be used as a substitute for a required course.

CRN	Section	Session/Dates	Days	Location	Time
10121	001	Full Semester	-	-	-
10122	002	First Half Session	-	-	-
10123	003	Second Half Session	-	-	-

**BFIN 322. Business Finance. 3 Credits.** (3 Lec) F,S,Su

PREREQUISITE: Junior standing, ACTG 201, ECNS 204IS, and either M 161Q or STAT 216Q. Study of the principles of finance with emphasis on the application and integration of financial concepts in decision making.

CRN	Section	Session/Dates	Days	Location	Time
10744	801	First Half Session	-	-	-

**BFIN 490R. Undergrad Research. 1-6 Credits.** (1 Ind; 12 cr max) On Demand

PREREQUISITE: Senior standing and consent of instructor. For business majors: formal admission to the College of Business. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10440	001	Full Semester	-	-	-

**BFIN 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Junior standing, formal admission to the College of Business, consent of instructor, and approval of Associate Dean. Directed research and study on an individual basis. Not to be used as a substitute for a required course.

CRN	Section	Session/Dates	Days	Location	Time
10124	001	Full Semester	-	-	-
10125	002	First Half Session	-	-	-
10126	003	Second Half Session	-	-	-



**BFIN 498. Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) On Demand  
 PREREQUISITE: Formal admission to the College of Business, and consent of instructor. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11077	001	Full Semester	-	-	-

**BFIN 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Graduate standing consent of instructor, approval of Associate Dean and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10127	001	Full Semester	-	-	-

## BGEN - Business: General

**BGEN 204. Business & Entrepreneurship Fundamentals. 3 Credits.** (3 Lec) F,S  
 This interactive course focuses on developing an entrepreneurial mindset and understanding fundamental business concepts in management, marketing, accounting, and finance. Intended for transfers into the College of Business & Entrepreneurship, non-business majors, and those who have not taken BGEN 194US.

CRN	Section	Session/Dates	Days	Location	Time
10738	001	First Half Session	MTR	JABS311	12:30pm - 2:50pm

**BGEN 242D. Intro to Int'l Business. 3 Credits.** (3 Rct) F,S  
 Introduces topics of globalization: differences in political economies, culture, legal systems, and ethical standards; international trade laws; issues in foreign direct investment trade alliances; global economic, financial, marketing, and human resource challenges; and organizational and strategic issues for international business.

CRN	Section	Session/Dates	Days	Location	Time
10976	801	First Half Session	-	-	-

**BGEN 361. Principles of Business Law. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: Junior standing. Survey of the U.S. legal system, business ethics, and the following areas of law: civil procedure, torts, contracts, UCC Article 2, intellectual property, employment, agency, and organizational forms. Emphasis on written and oral communication skills, critical thinking, and collaborative learning.

CRN	Section	Session/Dates	Days	Location	Time
10324	001	First Half Session	MTR	JABS311	10:00am - 12:20pm

**BGEN 499. Senior Thesis/Capstone: Strategy Seminar. 4 Credits.** (1 Lec, 3 Sem) F,S,Su  
 PREREQUISITE: Senior standing, formal admission to the College of Business, and completion of BMGT 335, BMIS 311, BMGT 322, BMKT 325, BFIN 322, and BGEN 361. This course is taken the last semester prior to graduation. Explores how firms achieve competitive advantage in the context of single and multi-business firms using the tools of strategic analysis.

CRN	Section	Session/Dates	Days	Location	Time
10458	801	First Half Session	-	-	-
10459	802	First Half Session	-	-	-

BGEN - Business: General

## BIOB - Biology-General

**BIOB 290R. Undergraduate Research. 1-6 Credits.** (1-6 Ind; max unlimited) On Demand  
 PREREQUISITE: Sophomore standing. Directed undergraduate research. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10547	001	Full Semester	-	-	-

**BIOB 375. General Genetics. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: BIOB 160, BIOB 170IN, BIOB 260, or BIOM 360. Introduction to classical and molecular genetics of eukaryotes, with emphasis on transmission genetics, the structure and regulation of genes, and mechanisms of genetic change.

CRN	Section	Session/Dates	Days	Location	Time
11082	001	First Half Session	MTWR	LINH125	9:00am - 11:00am

**BIOB 490R. Undergraduate Research. 1-4 Credits.** (1-6 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Junior or Senior standing and approval of instructor and approval of department head. Undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10548	001	Full Semester	-	-	-

**BIOB 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10634	002	Full Semester	-	-	-

**BIOB 497. Educational Methods: Biology. 2 Credits.** (2 Lab; 4 cr max) F,S,Su  
 PREREQUISITE: Junior or senior standing, consent of instructor and department head. Provides deeper contact with a subject for those considering an academic profession. This provides experience in a teaching laboratory under detailed academic supervision in recognition that teaching enhances learning. Includes the preparation, organization, presentation of materials, and student evaluation.

CRN	Section	Session/Dates	Days	Location	Time
10097	002	Second Half Session	-	-	-
10323	001	First Half Session	-	-	-

**BIOB 498. Internship/Cooperative Edu. 1-6 Credits.** (1-6 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: Junior standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10739	001	Full Semester	-	-	-

## BIOE - Biology-Ecological

**BIOE 416. Alpine Ecology. 3 Credits.** (1 Lec, 2 Lab) Su  
 PREREQUISITE: Junior standing, BIOB 170IN. The ecology characteristics of alpine areas. A three-day field trip will confirm and reinforce material presented in class and is a course requirement.

CRN	Section	Session/Dates	Days	Location	Time
10690	001	Second Half Session	-	LEWH107	-
10690	001	Second Half Session	MW	LEWH306	8:45am - 9:50am

**BIOE 420. Field Ornithology. 3 Credits.** (3 Lab) Su  
 PREREQUISITE: Junior standing, and either BIOB 100IN or BIOB 170IN. Field identification, habitat affinities and life histories of birds of the northern Rockies. Includes early morning field trips.

CRN	Section	Session/Dates	Days	Location	Time
10809	001	First Half Session	-	-	-

**BIOE 421. Yellowstone Wildlife Ecology. 3 Credits.** (2 Lec, 1 Lab) Su  
 PREREQUISITE: Junior standing, and either BIOB 100IN or BIOB 170IN. Basic ecology of the major animal species of the Yellowstone area and the ecological controversies surrounding their management.

CRN	Section	Session/Dates	Days	Location	Time
10810	001	First Half Session	MWRF	AJM237	10:00am - 11:05am

**BIOE 490R. Undergraduate Research. 1-6 Credits.** (1-6 Lec; 12 cr max) F,S,Su  
 Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. Maximum of 6 credits as electives in Organismal Biology Option.

CRN	Section	Session/Dates	Days	Location	Time
10774	001	Full Semester	-	-	-

**BIOE 492. Independent Study. 1-3 Credits.** (1-3 Ind; 3 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor and approval of department head. Maximum of 6 as electives in Organismal Biology Option. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10773	001	Full Semester	-	-	-

**BIOE 575. Professional Paper and Project. 1-4 Credits.** (1 Ind; 4 cr max) F,S,Su  
Graduate standing and committee approval and consent of instructor. A research or professional paper or project dealing with a topic in the field. The topic must be mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10806	001	Full Semester	-	-	-

**BIOE 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10807	001	Full Semester	-	-	-

**BIOE 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10808	001	Full Semester	-	-	-

**BIOE 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10811	001	Full Semester	-	-	-

## BIOH - Biology-Human

**BIOH 201. Human Anatomy and Physiology I. 5 Credits.** (3 Lec, 2 Lab) F,S,Su  
PREREQUISITE: CHMY 121IN, CHMY 141, or CHMY 151, with a grade of "C-" or better; priority given to majors requiring this course. General principles of cell and tissue biology that apply to all living systems. Structure and function of skeletal, muscular, nervous, and endocrine systems. Homeostasis, control, and integration of the human body will be emphasized. Laboratory will cover related systems. This course is not repeatable without prior consent of instructor.

CRN	Section	Session/Dates	Days	Location	Time
10759	001	Full Semester	MTWR	JONH339	1:10pm - 2:30pm
10760	002	Full Semester	MTWR	JONH240	8:00am - 9:50am
10915	003	Full Semester	MTWR	JONH240	10:00am - 11:50am

**BIOH 464. Clinical Hematology and Body Fluids. 2 Credits.** (1 Lec, 1 Lab) Su  
PREREQUISITE: Acceptance in professional training program. Topics include a review of normal hematopoiesis; red blood cell, white blood cell, and platelet disorders; body fluid overview; and an introduction to hematology instrumentation.

CRN	Section	Session/Dates	Days	Location	Time
10692	001	Full Semester	-	-	-
10692	001	Full Semester	MTWRF	LEWH204	1:00pm - 5:00pm

**BIOH 466. Clin Microbiology I. 3 Credits.** (2 Lec, 1 Lab) Su  
PREREQUISITE: Acceptance in professional training program. Topics include a review of medical microbiology, virology, mycology, parasitology, and clinical laboratory testing procedures.

CRN	Section	Session/Dates	Days	Location	Time
10693	001	Full Semester	MTWRF	LEWH204	8:00am - 5:00pm

**BIOH 467. Clinical Chemistry I. 3 Credits.** (2 Lec, 1 Lab) Su  
PREREQUISITE: Acceptance in professional training program. Topics include an introduction to theories and principles with emphasis on all body systems, and the role of instrumentation in the clinical chemistry laboratory.

CRN	Section	Session/Dates	Days	Location	Time
10694	001	Full Semester	-	-	-
10694	001	Full Semester	MTWRF	LEWH204	8:00am - 12:00pm

**BIOH 468. Clinical Immunohematology I. 3 Credits.** (2 Lec, 1 Lab) Su  
PREREQUISITE: Acceptance in professional training program. Basic techniques in blood banking. Topics to be included are: ABO/Rh typing, antibody identification, transfusion therapy and reactions, donor collection and component preparation.

CRN	Section	Session/Dates	Days	Location	Time
10691	001	Full Semester	-	-	-
10691	001	Full Semester	MTWRF	LEWH204	8:00am - 5:00pm

**BIOH 469. Essentials of Clinical Lab Practice. 1 Credit.** (1 Lab) Su  
PREREQUISITE: Acceptance in professional training program. Provides an orientation to the program, safety information, phlebotomy training, and an overview of management practices. Also includes instruction in hemostasis, molecular diagnostics and urinalysis.

CRN	Section	Session/Dates	Days	Location	Time
10825	001	Full Semester	-	-	-
10825	001	Full Semester	MTWRF	LEWH204	8:00am - 5:00pm

**BIOH 470. Summer Clinical Laboratory. 12-13 Credits.** Su  
PREREQUISITE: To take this course, students must be accepted into a professional training program. This is a clinical laboratory science course, which will be conducted at affiliate training programs during the summer of a student's senior year. It includes student lecture and laboratory instruction in clinical immunohematology, clinical chemistry, phlebotomy, clinical hemostasis, clinical microscopy and urinalysis, clinical body fluids, transfusion techniques, and clinical microbiology.

CRN	Section	Session/Dates	Days	Location	Time
10296	001	Full Semester	-	-	-
10355	002	Full Semester	-	-	-

**BIOH 594. Seminar. 1 Credit.** (1 Sem; 4 cr max) On Demand  
PREREQUISITE: Graduate standing or seniors by petition and course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

CRN	Section	Session/Dates	Days	Location	Time
11093	001	Full Semester	-	-	-

## BIOL - Biology

**BIOL 409. Advanced Human Torso Anatomy. 4 Credits.** (2 Lec, 2 Lab) S  
PREREQUISITE: Junior standing and 2 upper division biology courses and consent of instructor. Covers thorax and abdomen anatomy, emphasizing topography and three dimensional relations. Instruction will be based on student dissections of human cadavers, with lectures covering structure and function, as well as pathology typically encountered in the dissection laboratory.

CRN	Section	Session/Dates	Days	Location	Time
10865	001	First Half Session	MTWR	JONH223	1:00pm - 2:00pm
10865	001	First Half Session	MTWR	JONH223	2:10pm - 4:00pm

**BIOL 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10407	001	Full Semester	-	-	-
10489	002	Full Semester	-	-	-

**BIOL 588. Professional Development. 1-3 Credits.** (1-3 Lec; 3 cr max) On Demand  
PREREQUISITE: Graduate standing, teaching experience and/or current employment in a school organization, consent of instructor and Dean of Graduate Studies. Courses offered on a one time basis to fulfill professional development needs of in service educators. A specific focus is given to each course which is appropriately subtitled. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10370	801	Full Semester	-	-	-

## BIOM - Biology-Micro

**BIOM 290R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S  
Directed undergraduate research/creative activity which may culminate in a written work or other creative project. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
11059	001	Full Semester	-	-	-

**BIOM 292. Independent Study. 1-4 Credits.** (1-4 Ind; 6 cr max) On Demand  
PREREQUISITE: Consent of instructor and approval of instructor. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11060	001	Full Semester	-	-	-

**BIOM 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Senior standing. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10400	001	Full Semester	-	-	-
11061	002	Full Semester	-	-	-
11062	003	Full Semester	-	-	-
11063	004	Full Semester	-	-	-
11064	005	Full Semester	-	-	-
11065	006	Full Semester	-	-	-
11066	007	Full Semester	-	-	-
11067	008	Full Semester	-	-	-
11068	009	Full Semester	-	-	-
11069	010	Full Semester	-	-	-

**BIOM 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11070	001	Full Semester	-	-	-

## BMGT - Business: Management

**BMGT 205. Prof Business Communication. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: Completion of University Seminar and Writing University Core Requirement. Recognizing and creating effective approaches and styles for written, oral, and nonverbal communications appropriate to organizational situation, nature of message, and co-communicators. Course addresses professional document and presentation designs, choices of media, and tones for individual and organizational communications.

CRN	Section	Session/Dates	Days	Location	Time
10033	801	First Half Session	-	-	-

**BMGT 292. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 PREREQUISITE: Consent of instructor and approval of Associate Dean. Directed research and study on an individual basis. Not to be used as a substitute for a required course.

CRN	Section	Session/Dates	Days	Location	Time
10219	001	Full Semester	-	-	-
10220	002	First Half Session	-	-	-
10221	003	Second Half Session	-	-	-

**BMGT 322. Operations Management. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: Junior standing; for business majors: BMIS 211, M 161Q, and STAT 216Q; for non-business majors: M 161Q and consent of instructor. Introduction to the topics and methods of production and operations management. Emphasis is given to critical thinking, business analyses and computer modeling. Application areas include accounting, finance, marketing, and management.

CRN	Section	Session/Dates	Days	Location	Time
10038	001	First Half Session	MTR	JABS215	12:30pm - 2:50pm

**BMGT 335. Management and Organization. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: Junior standing. A survey of contemporary research-based concepts relevant to management and organization including topics such as motivation, leadership, teamwork, organizational design, communication, decision making, entrepreneurship, diversity, and ethics.

CRN	Section	Session/Dates	Days	Location	Time
10036	801	Second Half Session	-	-	-

**BMGT 465. International Practicum. 1-12 Credits.** (1 Ind) On Demand  
 PREREQUISITE: By application; for business majors: formal admission to the College of Business. Intensive study of culture, customs, politics, history, and business practices of another country. Program culminates with extended visit to location for lectures, and other relevant activities.

CRN	Section	Session/Dates	Days	Location	Time
11087	001	Full Semester	-	-	-

**BMGT 490R. Undergraduate Research. 1-6 Credits.** (1-6 Ind; 12 cr max) On Demand  
 PREREQUISITE: Senior standing and consent of instructor; for business majors: formal admission to the College of Business. Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10461	001	Full Semester	-	-	-

**BMGT 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Formal admission to the College of Business, consent of instructor, and approval of Associate Dean. Directed research and study on an individual basis. Not to be used as a substitute for a required course.

CRN	Section	Session/Dates	Days	Location	Time
11078	001	Full Semester	-	-	-

**BMGT 498. Internship. 2-12 Credits.** (2-12 Ind) On Demand  
 PREREQUISITE: Junior standing, formal admission to the College of Business, and consent of instructor. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
11079	001	Full Semester	-	-	-

**BMGT 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 PREREQUISITE: Graduate standing consent of instructor, approval of Associate Dean and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10222	001	Full Semester	-	-	-

## BMIS - Business: Mgmt Info Systems

**BMIS 211. Intro to Bus Decision Support. 3 Credits.** (3 Lec) F,S  
 PREREQUISITE: M 121Q. Focuses on best business practices with word-processing, presentation, spreadsheet, and database software. Emphasis on producing and evaluating effective and efficient information designs with applications in finance, accounting, marketing, and management.

CRN	Section	Session/Dates	Days	Location	Time
10656	001	First Half Session	MTR	JABS211	10:00am - 12:20pm

**BMIS 311. Management Information Systems. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: Junior standing, BMIS 211, and ACTG 201. A survey of the uses of information in organizational management, with emphasis on strategic systems and systems to support managerial decision making. Students apply concepts in practical application projects using currently available software.

CRN	Section	Session/Dates	Days	Location	Time
10037	801	Full Semester	-	-	-

## BMKT - Business: Marketing

**BMKT 292. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Consent of instructor and approval of Associate Dean. Directed research and study on an individual basis. Not to be used as a substitute for a required course.

CRN	Section	Session/Dates	Days	Location	Time
10223	001	Full Semester	-	-	-
10224	002	First Half Session	-	-	-
10225	003	Second Half Session	-	-	-

**BMKT 325. Principles of Marketing. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: Junior standing and ECNS 101. Marketing management decision-making in the product, price, promotion, and distribution areas. The behavioral, legal, ethical, competitive, technological, and economic environments as they affect decisions in the domestic and international organization.

CRN	Section	Session/Dates	Days	Location	Time
10557	802	First Half Session	-	-	-
11081	801	First Half Session	-	-	-

**BMKT 490R. Undergraduate Research. 1-6 Credits.** (1-6 Ind; 12 cr max) On Demand

PREREQUISITE: Senior standing and consent of instructor. For business majors: Formal admission to the College of Business. Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10462	001	Full Semester	-	-	-

**BMKT 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand

Max 6 cr. PREREQUISITE: Junior standing, formal admission to the College of Business, consent of instructor and approval of Associate Dean. Directed research and study on an individual basis. Not to be used as a substitute for a required course.

CRN	Section	Session/Dates	Days	Location	Time
10226	001	Full Semester	-	-	-
10227	002	First Half Session	-	-	-
10228	003	Second Half Session	-	-	-

**BMKT 498. Internship. 2-12 Credits.** (2 Ind; 12 cr max) On Demand

PREREQUISITE: Formal admission to the College of Business and consent of instructor. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10229	001	Full Semester	-	-	-

**BMKT 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand

Max 6 cr. PREREQUISITE: Graduate standing consent of instructor, approval of Associate Dean and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10230	001	Full Semester	-	-	-

**CAA - College of Arts & Arch****CAA 290R. Collaborative Rsch/Creative. 1-4 Credits.** (1 Ind; 8 cr max) F,S,Su

Max 8 cr. COREQUISITE: Freshman or sophomore standing and consent of instructor. Intended for lower division undergraduate research and creative projects undertaken in an interdisciplinary team format. The student will work closely with students and faculty colleagues seeking creative project solutions while exploring innovative methods of collaborative problem solving. Course will address responsible conduct of research. May be repeated. Department Undeclared.

CRN	Section	Session/Dates	Days	Location	Time
10589	001	Full Semester	-	CHVR125	-

**CAA 490R. Collaborative Rsch/Creative. 1-4 Credits.** (1 Ind; 8 cr max) F,S,Su

Max 8 cr. COREQUISITE: Junior or higher standing and approval of instructor. Intended for upper division undergraduate research and creative projects undertaken in an interdisciplinary team format. The student will work closely with students and faculty colleagues seeking creative project solutions while exploring innovative methods of collaborative problem solving. Course will address responsible conduct of research. May be repeated. Department Undeclared.

CRN	Section	Session/Dates	Days	Location	Time
10590	001	Full Semester	-	CHVR125	-

**CAPP - Computer Applications****CAPP 120. Introduction to Computers. 3 Credits.** (3 Lec) F,S,Su

Offered by Gallatin College. Computer hardware and software concepts as they apply to all computers. Exposure to software packages such as Windows, word processors, spreadsheets, and Internet applications. Laboratory projects reflect practical usage in resolving real world problems/situations.

CRN	Section	Session/Dates	Days	Location	Time
11289	001	Second Half Session	-	-	-

**CAPP 156. Microsoft Excel. 3 Credits.** (3 Lec) F

Su Offered by Gallatin College. Introduces business applications using spreadsheets. Emphasis placed on the essential functions of spreadsheet operation, as well as an introduction to some advanced spreadsheet features such as lookup functions and list management. Covers expert level skills for the Microsoft Certified Application Specialist (MCAS) certification in Microsoft Excel.

CRN	Section	Session/Dates	Days	Location	Time
11268	001	Second Half Session	-	-	-

**CHMY - Chemistry****CHMY 121IN. Introduction of General Chemistry. 4 Credits.** (3 Lec, 1 Lab)

F,S,Su

PREREQUISITE: C- or above in M 096 or M 097 or placement in a Math Level 3 (ACT 23 or SAT 540). Introductory general chemistry. Measurement systems, atomic structure, chemical periodicity, bonding, chemical reactions, acid-base chemistry, electrochemistry, nuclear chemistry.

CRN	Section	Session/Dates	Days	Location	Time
10421	001	First Half Session	MTWR	GH043	7:30am - 8:35am
10421	001	First Half Session	F	GH043	7:30am - 9:50am
10422	002	First Half Session	TR	GH216	12:30pm - 4:05pm
10816	050	First Half Session	-	-	-
10918	003	First Half Session	TR	GH218	12:30pm - 4:05pm

**CHMY 123. Introduction of Organic Chemistry and Biochemistry. 4 Credits.** (3

Lec, 1 Lab) F,S,Su

PREREQUISITE: C- or above in CHMY 121IN or CHMY 143. An introduction into functional group organic chemistry and important biochemical structures, concepts, and processes. The laboratory is closely integrated with lecture coverage.

CRN	Section	Session/Dates	Days	Location	Time
10418	001	Second Half Session	MTWRF	GH043	7:30am - 8:45am
10419	002	Second Half Session	TR	GH347	9:00am - 12:00pm
10420	003	Second Half Session	TR	GH218	12:30pm - 4:05pm
10821	050	Second Half Session	-	-	-

**CHMY 141. College Chemistry I. 4 Credits.** (3 Lec, 1 Lab) F,S,Su

PREREQUISITE: C- or above in M 121Q or placement in a Math Level 4 (ACT 25 or SAT 580). The first of a two-semester course sequence about the general principles of modern chemistry with emphasis on atomic structure, chemical bonding, the periodic table, equilibria, chemical reactivity, and kinetics.

CRN	Section	Session/Dates	Days	Location	Time
10412	001	First Half Session	MWRF	GH043	10:00am - 11:05am
10412	001	First Half Session	T	GH043	10:00am - 12:20pm
10413	002	First Half Session	MW	GH210	12:30pm - 4:05pm
10414	003	First Half Session	MW	GH245	12:30pm - 4:05pm
10588	004	First Half Session	MW	GH247	12:30pm - 4:05pm
10641	050	First Half Session	-	-	-
11140	005	First Half Session	-	-	-
11145	006	First Half Session	-	-	-
11146	007	First Half Session	-	-	-

**CHMY 143. College Chemistry II. 4 Credits.** (3 Lec, 1 Lab) F,S,Su

PREREQUISITE: C- or above in CHMY 141. The second semester of the two-semester general chemistry sequence.

CRN	Section	Session/Dates	Days	Location	Time
10415	001	Second Half Session	MWRF	GH043	10:00am - 11:05am
10415	001	Second Half Session	T	GH043	10:00am - 12:20pm
10416	002	Second Half Session	MW	GH245	12:30pm - 4:05pm
10417	003	Second Half Session	MW	GH247	12:30pm - 4:05pm
10457	004	Second Half Session	MW	-	12:30pm - 4:05pm
10822	050	Second Half Session	-	-	-
11147	006	Second Half Session	-	-	-
11148	007	Second Half Session	-	-	-
11149	008	Second Half Session	-	-	-

**CHMY 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

Max 6 cr. PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10064	001	Full Semester	-	-	-
10065	002	First Half Session	-	-	-
10066	003	Second Half Session	-	-	-

**CHMY 321. Organic Chemistry I. 4 Credits.** (3 Lec, 1 Lab) F,Su  
PREREQUISITE: CHMY 143 or CHMY 153. The first of a two-semester professional sequence in organic chemistry. In-depth coverage of stereochemistry, synthetic organic chemistry, physical organic chemistry, spectroscopy, and nomenclature. Students should register for both semesters.

CRN	Section	Session/Dates	Days	Location	Time
10067	001	First Half Session	MTRF	WIL1122	10:00am - 11:05am
10067	001	First Half Session	W	WIL1122	10:00am - 12:20pm
10068	002	First Half Session	TR	GH316	12:00pm - 3:35pm
10069	003	First Half Session	M	GH316	12:00pm - 3:35pm
10069	003	First Half Session	W	GH316	1:00pm - 4:35pm
10300	004	First Half Session	M	GH318	12:00pm - 3:35pm
10300	004	First Half Session	W	GH318	1:00pm - 4:35pm
10823	050	First Half Session	-	-	-

**CHMY 323. Organic Chemistry II. 4 Credits.** (3 Lec, 1 Lab) S,Su  
PREREQUISITE: CHMY 321. The second semester of the two-semester professional sequence in organic chemistry.

CRN	Section	Session/Dates	Days	Location	Time
10286	001	Second Half Session	MTRF	WIL1143	10:00am - 11:05am
10286	001	Second Half Session	W	WIL1143	10:00am - 12:20pm
10287	002	Second Half Session	TR	GH316	12:00pm - 3:35pm
10288	003	Second Half Session	M	GH316	12:00pm - 3:35pm
10288	003	Second Half Session	W	GH316	1:00pm - 4:35pm
10306	004	Second Half Session	M	GH318	12:00pm - 3:35pm
10306	004	Second Half Session	W	GH318	1:00pm - 4:35pm
10824	050	Second Half Session	-	-	-

**CHMY 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
Max 12 cr. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10423	001	Full Semester	-	-	-
10424	002	First Half Session	-	-	-
10425	003	Second Half Session	-	-	-

**CHMY 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
Max 6 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10070	001	Full Semester	-	-	-
10071	002	First Half Session	-	-	-
10072	003	Second Half Session	-	-	-

**CHMY 575. Professional Paper. 1-6 Credits.** (1-6 Ind; 6 cr max) F,S  
Maximum 6 credits. PREREQUISITE: Consent of instructor. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10815	001	Second Half Session	-	-	-

**CHMY 589. Graduate Consultation. 1-3 Credits.** (3 Ind) F,S,Su  
PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10060	001	Full Semester	-	-	-

**CHMY 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
IND Maximum credits unlimited. PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10061	001	Full Semester	-	-	-
10062	002	First Half Session	-	-	-
10063	003	Second Half Session	-	-	-

**CHMY 592. Independent Study. 1-3 Credits.** (1-3 Ind; 3 cr max) On Demand  
Max 3 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10702	001	Full Semester	-	-	-
10703	002	First Half Session	-	-	-
10704	003	Second Half Session	-	-	-

**CHMY 689. Grad Research/Instruction. 1-3 Credits.** (1-3 Lec; 3 cr max) F,S,Su  
PREREQUISITE: Graduate standing. COREQUISITE: CHMY 590 or CHMY 690. Classroom instruction associated with directed graduate research/creative activity projects.

CRN	Section	Session/Dates	Days	Location	Time
10073	001	Full Semester	-	-	-

**CHMY 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10074	001	Full Semester	-	-	-
10075	002	First Half Session	-	-	-
10076	003	Second Half Session	-	-	-

## CHTH - Community Health

**CHTH 205. Drugs and Society. 3 Credits.** (3 Lec) F,S

Su On Demand Individual and social implications of psychoactive drug use. Basic pharmaceutical concepts, legal issues, common pharmaceutical preparations, and over-the-counter products are studied.

CRN	Section	Session/Dates	Days	Location	Time
10346	801	First Half Session	-	-	-

**CHTH 245. Physical Activity, Nutrition and Health in Aging. 3 Credits.** (3 Lec)  
On-Line Only To understand the intersection between nutrition, physical activity and health in an aged population. Theories of aging, physiological processes, nutritional needs, chronic health conditions and components of physical activity will be explored.

CRN	Section	Session/Dates	Days	Location	Time
11337	801	First Half Session	-	-	-

**CHTH 317. Health Behavior Theories. 3 Credits.** (3 Lec) F,S

PREREQUISITE: PSYX 1001S or SOCI 1011S. The study and application of theoretical models of exercise and health with emphasis on behavior change in the individual and group levels.

CRN	Section	Session/Dates	Days	Location	Time
11138	801	Second Half Session	-	-	-

**CHTH 325. Economic & Public Policies in Aging. 3 Credits.** (3 Lec) S

To understand the complex financial needs of older adults from retirement to end-of-life. To understand public policies associated with the politics of aging.

CRN	Section	Session/Dates	Days	Location	Time
11336	801	First Half Session	-	-	-

**CHTH 435. Human Response To Stress. 3 Credits.** (3 Lec) F,S,Su On Demand

PREREQUISITE: Junior standing. Analysis of human response to stress in relation to a variety of biopsychosocial factors; techniques for managing stress are also investigated.

CRN	Section	Session/Dates	Days	Location	Time
10834	801	First Half Session	-	-	-
11019	802	Second Half Session	-	-	-

**CHTH 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max)

PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11015	001	Full Semester	-	-	-
11016	002	First Half Session	-	-	-
11017	003	Second Half Session	-	-	-

**CHTH 495. Pract Experience in Aging. 3 Credits.** (3 Lec) Su

PREREQUISITE: Completion of 12-credits of coursework in the online gerontology. This class will provide students the opportunity to gain practical experience in working with older adults as well as provide students the opportunity to develop as professionals in the field of aging.

CRN	Section	Session/Dates	Days	Location	Time
11506	001	Full Semester	-	-	-

**CHTH 498. Internship. 1-12 Credits.** (1-12 Ind; 12 cr max) On Demand

PREREQUISITE: Consent of internship director in academic area. An individualized professional assignment arranged for specific discipline. Some academic areas will offer specific sections in sequence for their students. All students must receive department permission prior to registration, and register for a senior seminar in their major area.

CRN	Section	Session/Dates	Days	Location	Time
11018	001	Full Semester	-	-	-

**CHTH 575. Professional Paper and Project. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su

PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10670	001	Full Semester	-	-	-
10671	002	Full Semester	-	-	-

**CHTH 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind; 3 cr max) F,S,Su

PREREQUISITE: Graduate standing in health major and approval of committee chair. This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10664	001	Full Semester	-	-	-

**CHTH 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su

PREREQUISITE: Master's standing. Directed graduate research/creative activity.

CRN	Section	Session/Dates	Days	Location	Time
10338	001	Full Semester	-	-	-

**CHTH 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su

Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10663	001	Full Semester	-	-	-

## COA - Coaching

**COA 205. Introduction to Coaching. 3 Credits.** (3 Lec) F,S

Introductory coaching course which will cover basic information from the beginning level in the American Coach Effectiveness Program.

CRN	Section	Session/Dates	Days	Location	Time
10602	001	Full Semester	-	-	-

**COA 395. Practicum:Coaching Application. 1 Credit.** (1 Lec; 3 cr max) F,S,Su

PREREQUISITE: COA 205 with a grade of at least a "C" and declared Coaching minor. Assignment of prospective coaches to specific sports. Discussion and feedback on planning and implementation in practical setting.

CRN	Section	Session/Dates	Days	Location	Time
10522	801	Full Semester	-	-	-

**COA 405. Advanced Concepts in Coaching. 3 Credits.** (3 Lec) F,S,Su

PREREQUISITE: COA 205 with a grade of at least a "C" and declared Coaching minor or consent of instructor. The class is intended for student in the MSU coaching minor and/or experienced coaches who wish to examine current issues in coaching such as dealing with athletes with concussions, coaching the female athlete, emphasizing sportsmanship and ethics in sport, or coach/parent relationships in detail.

CRN	Section	Session/Dates	Days	Location	Time
10523	801	Full Semester	-	-	-

## COM - Communications

**COM 000. COM" COURSES ARE NOW "COMX. 0 Credits.**

-- All "COM" courses are now listed under the "COMX" subject code. COM 110US Public Communication, last offered in Spring 2015, was replaced with COMX 111US, beginning Summer 2015.

CRN	Section	Session/Dates	Days	Location	Time
11173	000	Full Semester	-	-	-

## COMX - Communication

**COMX 102. Interpersonal Skills in the Workplace. 1 Credit.** (1 Lec) F,S,Su

Offered by Gallatin College. This course covers the basic elements of communication in the business environment, including listening, speaking, and reading. It also looks at the importance of nonverbal communication, ethics, and professional courtesy.

It discusses the importance of internal skills like teamwork and external skills with customers such as reflective listening. Successful interview skills are discussed in class and demonstrated in final student project.

CRN	Section	Session/Dates	Days	Location	Time
11044	001	First Half Session	TR	GCE2	7:45pm - 9:00pm

**COMX 111US. Introduction to Public Speaking. 3 Credits.** (1 Lec, 2 Rec) F,S,Su

Overview of the theories, concepts, and principles of public speaking, to include audience analysis, evidence, sensory aids, small group communication, ethics and listening. Application of concepts and principles through preparation and delivery of impromptu, informative, persuasive, and group presentations.

CRN	Section	Session/Dates	Days	Location	Time
11152	001	First Half Session	TR	WIL1128	8:45am - 9:50am
11152	001	First Half Session	TR	WIL1128	12:30pm - 2:50pm
11153	002	Second Half Session	MW	WIL1128	8:45am - 9:50am
11153	002	Second Half Session	MW	WIL1128	12:30pm - 2:50pm

## CS - Computer Science

**CS 145RA. Web Design. 3 Credits.** (2 Lec, 1 Lab) F,S

Basic design principles and how these principles apply to website construction. HTML, HTML editors and Cascading Style Sheets. Laboratory projects reflect practical usage of course concepts. Cross-listed with MART 145.

CRN	Section	Session/Dates	Days	Location	Time
10752	001	Second Half Session	-	-	-
10753	002	Second Half Session	TR	EPS254	12:30pm - 2:50pm
10754	003	Second Half Session	-	-	-

## CSCI - Computer Science/Programming

**CSCI 107. Joy and Beauty of Computing. 3 Credits.** (3 Lec) F

Examines the computing field and how it impacts the human condition. Introduces exciting ideas and influential people. Provides a gentle introduction to computational thinking using the Python programming language.

CRN	Section	Session/Dates	Days	Location	Time
11108	001	First Half Session	-	-	-

**CSCI 111. Programming with Java I. 4 Credits.** (3 Lec, 1 Lab) F,S

COREQUISITE: M 151Q. Introduction to programming: program design, analysis, and implementation in Java, including I/O, assignment, decision, iteration, scalar types, arrays, control structures, methods, classes, and common data types. No previous programming experience required.

CRN	Section	Session/Dates	Days	Location	Time
11109	001	Second Half Session	MTWRF	WIL1126	1:45pm - 2:50pm
11109	001	Second Half Session	MWF	EPS254	3:00pm - 5:20pm

**CSCI 112. Programming with C I. 3 Credits.** (2 Lec, 1 Lab) S

PREREQUISITE: CSCI 111 or EELE 101. C Programming knowledge. Introduces imperative programming and the C standard library. Course covers pointers, memory management and structures.

CRN	Section	Session/Dates	Days	Location	Time
10917	001	First Half Session	MTWR	ROBH312A	8:45am - 9:50am
10917	001	First Half Session	TR	EPS254	10:00am - 12:20pm

**CSCI 132. Basic Data Structures and Algorithms. 4 Credits.** (3 Lec, 1 Lab) F,S  
 PREREQUISITE: CSCI 111 and M 151Q. 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.

CRN	Section	Session/Dates	Days	Location	Time
11110	001	First Half Session	MTWRF	WIL1123	12:30pm - 1:35pm
11110	001	First Half Session	MWF	EPS254	1:45pm - 4:05pm

**CSCI 215CS. Social & Ethical Issues in CS. 3 Credits.** (2 Lec, 1 Rec) F  
 PREREQUISITE: W core and US core. Social and ethical issues as they relate to computing, including privacy, risks, computer abuse, commerce, professionalism, free speech, intellectual property, social justice, and current issues. History of computing.

CRN	Section	Session/Dates	Days	Location	Time
11111	001	First Half Session	MTWR	GH030	4:15pm - 5:20pm
11111	001	First Half Session	TR	GH030	5:30pm - 6:35pm

**CSCI 232. Data Structures and Algorithms. 4 Credits.** (3 Lec, 1 Lab) S  
 PREREQUISITE: CSCI 132. Advanced data structures and programming techniques and their application. Topics include: trees, balanced trees, graphs, dictionaries, hash tables, heaps. Examines the efficiency and correctness of algorithms. The laboratory uses Java.

CRN	Section	Session/Dates	Days	Location	Time
10675	001	Second Half Session	MTWRF	WIL1123	8:45am - 9:50am
10675	001	Second Half Session	MWF	EPS254	10:00am - 12:20pm

**CSCI 246. Discrete Structures. 3 Credits.** (3 Lec) F  
 PREREQUISITE: M 171Q. COREQUISITE: CSCI 132. This course covers logic, discrete probability, recurrence relations, Boolean algebra, sets, relations, counting, functions, maps, Big-O notation, proof techniques including induction, and proof by contradiction.

CRN	Section	Session/Dates	Days	Location	Time
10684	001	First Half Session	-	-	-

**CSCI 292. Independent Study. 1-3 Credits.** (1-3 Ind; 3 cr max) On Demand  
 Max 3 cr. PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10101	001	Full Semester	-	-	-

**CSCI 338. Computer Science Theory. 3 Credits.** (3 Lec) S  
 PREREQUISITE: CSCI 246 and M 171Q. Formal languages, theory, automata, Turing Machines, computability, the Church-Turing thesis, computational complexity, and NP-completeness.

CRN	Section	Session/Dates	Days	Location	Time
11112	001	First Half Session	-	-	-

**CSCI 492. Independent Study. 1-4 Credits.** (1-3 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10102	001	Full Semester	-	-	-

**CSCI 498. Internship. 1-6 Credits.** (1-6 Ind; 6 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor, and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10103	001	Full Semester	-	-	-

**CSCI 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10106	001	Full Semester	-	-	-

**CSCI 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10104	001	Full Semester	-	-	-

**CSCI 598. Internship. 1-6 Credits.** (1-6 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10559	001	Full Semester	-	-	-

**CSCI 599. Graduate Consultation. 1-3 Credits.** (1-3 Ind; 3 cr max) On Demand  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work, and thesis, if on a thesis plan but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10105	001	Full Semester	-	-	-

**CSCI 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10293	001	Full Semester	-	-	-

## DDSN - Drafting Design

**DDSN 298. Internship. 4 Credits.** (4 Ind) F,S,Su  
 Prerequisite: Program Director approval only. Job experience within your chosen field. Typically Taken – 4th Semester (Spring).

CRN	Section	Session/Dates	Days	Location	Time
10758	001	Full Semester	F	HAM229	12:00pm - 3:20pm

## EBIO - Biological Engineering

**EBIO 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 Maximum 6 cr. PREREQUISITE: Consent of instructor and approval of the Associate Dean. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10787	001	Full Semester	-	-	-

**EBIO 490R. Undergraduate Research. 1-8 Credits.** (1-8 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Senior Standing. Directed undergraduate research/creative activity which may culminate in research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10788	001	Full Semester	-	-	-
10920	002	Full Semester	-	-	-
10921	003	Full Semester	-	-	-
10922	004	Full Semester	-	-	-
10923	005	Full Semester	-	-	-
10924	006	Full Semester	-	-	-
10925	007	Full Semester	-	-	-
10926	008	Full Semester	-	-	-
10927	009	Full Semester	-	-	-
11419	010	Full Semester	-	-	-
11420	011	Full Semester	-	-	-
11421	012	Full Semester	-	-	-
11422	013	Full Semester	-	-	-
11423	014	Full Semester	-	-	-
11424	015	Full Semester	-	-	-
11425	016	Full Semester	-	-	-

**EBIO 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10790	001	Full Semester	-	-	-

**EBIO 498. Internship. 1-12 Credits.** (1-12 Ind; 12 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor and approval of associate dean. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10789	001	Full Semester	-	-	-

**EBIO 590. Master's Thesis. 1-10 Credits.** (1-10 Ind) F,S,Su  
 PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10928	001	Full Semester	-	-	-
10929	002	Full Semester	-	-	-
10930	003	Full Semester	-	-	-
10931	004	Full Semester	-	-	-
10932	005	Full Semester	-	-	-
10934	006	Full Semester	-	-	-
10935	007	Full Semester	-	-	-
10936	008	Full Semester	-	-	-
10937	009	Full Semester	-	-	-
11426	010	Full Semester	-	-	-
11427	011	Full Semester	-	-	-
11428	012	Full Semester	-	-	-
11429	013	Full Semester	-	-	-
11430	014	Full Semester	-	-	-
11431	015	Full Semester	-	-	-
11432	016	Full Semester	-	-	-

**EBIO 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; 10 cr max)  
 PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10938	001	Full Semester	-	-	-
10939	002	Full Semester	-	-	-
10940	003	Full Semester	-	-	-
10941	004	Full Semester	-	-	-
10942	005	Full Semester	-	-	-
10943	006	Full Semester	-	-	-
10944	007	Full Semester	-	-	-
10945	008	Full Semester	-	-	-
10946	009	Full Semester	-	-	-
11433	010	Full Semester	-	-	-
11434	011	Full Semester	-	-	-
11435	012	Full Semester	-	-	-
11436	013	Full Semester	-	-	-
11437	014	Full Semester	-	-	-
11438	015	Full Semester	-	-	-
11439	016	Full Semester	-	-	-

## ECHM - Chemical Engineering

**ECHM 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 Maximum 6 cr. PREREQUISITE: Consent of instructor and approval of the Associate Dean. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11034	001	Full Semester	-	-	-

**ECHM 323. Chemical Engineering Mass Transfer Operations. 3 Credits.** (3 Lec) S  
 PREREQUISITE: ECHM 307, ECHM 322. Theory and equipment for fundamental chemical engineering operations involving mass transfer. Equipment design and computations of operational rates.

CRN	Section	Session/Dates	Days	Location	Time
11035	001	Full Semester	-	-	-

**ECHM 490R. Undergraduate Research. 1-8 Credits.** (1-8 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Senior Standing. Directed undergraduate research/creative activity which may culminate in research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10947	001	Full Semester	-	-	-
10948	002	Full Semester	-	-	-
10949	003	Full Semester	-	-	-
10950	004	Full Semester	-	-	-
10951	005	Full Semester	-	-	-
10952	006	Full Semester	-	-	-
10953	007	Full Semester	-	-	-
10954	008	Full Semester	-	-	-
10955	009	Full Semester	-	-	-
11440	010	Full Semester	-	-	-
11441	011	Full Semester	-	-	-
11442	012	Full Semester	-	-	-
11443	013	Full Semester	-	-	-
11444	014	Full Semester	-	-	-
11445	015	Full Semester	-	-	-
11446	016	Full Semester	-	-	-

**ECHM 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11036	001	Full Semester	-	-	-

**ECHM 498. Internship. 1-12 Credits.** (1-12 Lec; 12 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor and approval of associate dean. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10972	001	Full Semester	-	-	-

**ECHM 575. Research or Prof Paper/Project. 1-4 Credits.** (1-4 Ind; 6 cr max) On Demand  
 Maximum 6 cr. PREREQUISITE: Graduate standing. A research or professional dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10492	001	Full Semester	-	-	-

**ECHM 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; 10 cr max) F,S,Su  
 PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10493	001	Full Semester	-	-	-
10956	002	Full Semester	-	-	-
10957	003	Full Semester	-	-	-
10958	004	Full Semester	-	-	-
10959	005	Full Semester	-	-	-
10960	006	Full Semester	-	-	-
10961	007	Full Semester	-	-	-
10962	008	Full Semester	-	-	-
10963	009	Full Semester	-	-	-
11447	010	Full Semester	-	-	-
11448	011	Full Semester	-	-	-
11449	012	Full Semester	-	-	-
11450	013	Full Semester	-	-	-
11451	014	Full Semester	-	-	-
11452	016	Full Semester	-	-	-
11453	015	Full Semester	-	-	-



**ECHEM 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand Maximum 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10491	001	First Half Session	-	-	-
10584	002	Second Half Session	-	-	-

**ECHEM 598. CHBE Grad Internship. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su Maximum 6 cr. PREREQUISITE: Graduate standing, consent of advisor and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10561	001	Full Semester	-	-	-

**ECHEM 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; 10 cr max) F,S,Su PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10494	001	Full Semester	-	-	-
10964	002	Full Semester	-	-	-
10965	003	Full Semester	-	-	-
10966	004	Full Semester	-	-	-
10967	005	Full Semester	-	-	-
10968	006	Full Semester	-	-	-
10969	007	Full Semester	-	-	-
10970	008	Full Semester	-	-	-
10971	009	Full Semester	-	-	-
11454	010	Full Semester	-	-	-
11455	011	Full Semester	-	-	-
11456	012	Full Semester	-	-	-
11457	013	Full Semester	-	-	-
11458	014	Full Semester	-	-	-
11459	015	Full Semester	-	-	-
11460	016	Full Semester	-	-	-

## ECIV - Civil Engineering

**ECIV 490R. Undergraduate Research. 1-4 Credits.** (1 Ind; 12 cr max) F,S,Su Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10741	001	Full Semester	-	-	-

**ECIV 492. Independent Study. 1-3 Credits.** (1-3 Ind; 4 cr max) On Demand PREREQUISITE: Junior standing, consent of instructor, and approval of Department Head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10046	001	Full Semester	-	-	-
10047	002	First Half Session	-	-	-
10048	003	Second Half Session	-	-	-
11144	004	First Half Session	-	-	-

**ECIV 498. Internship. 2 Credits.** (2 Ind; 12 cr max) On Demand PREREQUISITE: Junior standing, consent of instructor and approval of Department Head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field. Students may not take this course the semester they graduate.

CRN	Section	Session/Dates	Days	Location	Time
10049	001	Non-standard term dates 16- MAY-16 12-AUG-16	-	-	-

**ECIV 505. Quality Assure/Risk Management. 3 Credits.** (3 Lec) Su PREREQUISITE: Either EGEN 350, EIND 354 or STAT 332 and ECIV 308 or equivalent plus one year of industrial experience or one internship (ECIV 498 or ETCC 498). PMSEM-CEM option requirement. ONLINE ONLY. Analysis of quality assurance and control concepts to include utilization of statistical analysis. Application of risk analysis principles to the construction process to minimize liability and project costs.

CRN	Section	Session/Dates	Days	Location	Time
11340	801	Non-standard term dates 09- MAY-16 01-JUL-16	-	-	-

**ECIV 506. Ad Construction Management. 3 Credits.** (3 Lec) F S; Lec 3 PREREQUISITE: One year of industrial experience or one internship (ECIV 498 or ETCC 498). COREQUISITE: ETCC 499 or equivalent. PMSEM-CEM option requirement. ONLINE ONLY. Broad issues of construction sustainability (LEED, Lean Construction, Environmental requirements, etc.) and how the construction industry needs to manage this process.

CRN	Section	Session/Dates	Days	Location	Time
11342	801	Non-standard term dates 15- JUN-16 16-AUG-16	-	-	-

**ECIV 575. Research or Prof Paper/Project. 1-4 Credits.** (1 Ind; 6 cr max) F,S,Su PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major adviser and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10051	001	Full Semester	-	-	-

**ECIV 589. Graduate Consultation. 1-3 Credits.** (3 Ind; 3 cr max) F,S PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10053	001	Full Semester	-	-	-

**ECIV 590. Master's Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10054	001	Full Semester	-	-	-

**ECIV 592. Independent Study. 1-9 Credits.** (1-9 Ind; 6 cr max) On Demand PREREQUISITE: Graduate standing, consent of instructor, approval of Department Head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10050	001	Full Semester	-	-	-
10502	002	Second Half Session	-	-	-
10604	003	First Half Session	-	-	-

**ECIV 598. Internship. 2 Credits.** (2 Ind; 12 cr max) On Demand Graduate standing, consent of instructor and approval of Department Head. An individual assignment arranged with an agency, business or other organizations to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10052	001	Full Semester	-	-	-

**ECIV 690. Doctoral Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10055	001	Full Semester	-	-	-

## ECNS - Economics

**ECNS 202. Principles of Macroeconomics. 3 Credits.** (3 Lec) F,S,Su PREREQUISITE: ECNS 101. COREQUISITE: M 121. Topics include inflation, unemployment, interest rates, money, and the impact of government surpluses or deficits. Government policies of growth, employment, income distribution, and international trade are examined.

CRN	Section	Session/Dates	Days	Location	Time
10438	001	First Half Session	MWR	LINH234	12:30pm - 2:50pm

**ECNS 204IS. Microeconomics. 3 Credits.** (3 Lec) F,S

SU PREREQUISITE: ECNS 101, M 121. Consumer theory and the theory of the firm are utilized to show how independent decisions by consumers and firms interact in markets to determine the price and output of goods and services.

CRN	Section	Session/Dates	Days	Location	Time
10606	001	Second Half Session	MWR	LINH109	12:30pm - 2:50pm

**ECNS 490R. Undergraduate Research. 1-8 Credits.** (1-8 Ind; 8 cr max) F,S,Su

PREREQUISITE: ECNS 204, junior standing, and approval of instructor. Intended for upper division undergraduate research/undergraduate scholars program. The student will work closely with the supervising faculty. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10439	001	Full Semester	-	-	-

**ECNS 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10107	001	Full Semester	-	-	-

**ECNS 575. Professional Paper and Project. 1-4 Credits.** (1-4 Ind; 6 cr max) F,S,Su

Max 6 cr. PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10108	001	Full Semester	-	-	-

**ECNS 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S,Su

PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10109	001	Full Semester	-	-	-

**ECNS 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su

PREREQUISITE: Master's standing. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10110	001	Full Semester	-	-	-

**ECNS 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Graduate standing, consent of instructor, and approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10705	001	Full Semester	-	-	-

## EDCI - Education Curriculum & Instr

**EDCI 501. Educational Statistics I. 3 Credits.** (3 Lec) F,Su

PREREQUISITE: STAT 216, graduate standing or consent of instructor. The application of statistical processes to the analysis of educational data. Educational problems that require hypothesis testing, regression, estimation and the T-distribution, analysis of frequencies, and ANOVA in their solution will be included.

CRN	Section	Session/Dates	Days	Location	Time
10746	001	Non-standard term dates 16-MAY-16 05-AUG-16	-	REID223	-

**EDCI 506. Applied Ed Rsch. 3 Credits.** (3 Lec) F,S,Su

PREREQUISITE: Graduate standing. Students are introduced to systematic scientific inquiry, its purpose in an educational environment, the different approaches to conducting educational research, and the major components of an educational research study. Providing a foundation for further study of research methodologies, students will identify and evaluate existing literature on a topic and conduct an educational research study. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10527	001	Intersession	-	-	-

**EDCI 531. Contemp Issues in Ed. 3 Credits.** (3 Lec) Su

This course is designed to establish the necessary social, technical, and research, foundations for cohort groups in the Master's degree program. This course will examine critical issues in education including advanced pedagogy, Indian Education for All, and school law.

CRN	Section	Session/Dates	Days	Location	Time
10528	001	Intersession	-	-	-

**EDCI 532. General School Curriculum. 3 Credits.** (3 Lec) S

PREREQUISITE: Graduate standing. A survey of developments in curriculum theory and the role of curriculum reform in school improvement initiatives. Also treated is the relationship between curriculum reform and implementation.

CRN	Section	Session/Dates	Days	Location	Time
10748	001	Intersession	-	-	-

**EDCI 534. Literacy Assessment and Instruction. 3 Credits.** (3 Lec) Su

PREREQUISITE: EDU 330, EDU 431, teaching experience. Current theory and techniques in assessment of reading. Emphasis on instructional strategies and assessment tools developing the literacy of all students. A practicum is included.

CRN	Section	Session/Dates	Days	Location	Time
10672	001	Intersession	-	-	-

**EDCI 536. Construction of Curriculum. 3 Credits.** (3 Lec) On Demand

PREREQUISITE: Graduate standing. The development and evaluation of curriculum based on psychological and social foundations of curriculum, curriculum theory, developmental models, design issues, purposes, implementation plans and techniques for assessing the impact of curriculum change.

CRN	Section	Session/Dates	Days	Location	Time
11287	001	Intersession	-	-	-

**EDCI 542. Creative Processes in Education. 3 Credits.** (3 Lec) On Demand

PREREQUISITE: EDU 495, Graduate standing. Reviews historical and current issues in art education, aesthetic education and related areas which inform how we know our world and construct meaningful ways to pursue creative endeavors. Emphasizes documentation and research while acknowledging growth as teachers and artists.

CRN	Section	Session/Dates	Days	Location	Time
11141	001	Intersession	-	-	-

**EDCI 546. Schl Library Media Specialist. 3 Credits.** (3 Lec) F alternate years, to be offered odd years.

PREREQUISITE: EDU 370 or equivalent and graduate standing. This course will examine the management and leadership role of the school library media specialist and how the library media center fits into the educational setting. Restricted to BATE Library Media program students.

CRN	Section	Session/Dates	Days	Location	Time
10465	801	Full Semester	-	-	-

**EDCI 548. Mgmt of Information/Resources. 3 Credits.** (3 Lec) S alternate years, to be offered even years.

PREREQUISITE: EDU 370 or equivalent and graduate standing. Students learn the management, development, use, and evaluation of materials for building library collections in K-12 library media centers. Restricted to BATE Library Media program students.

CRN	Section	Session/Dates	Days	Location	Time
10577	801	Full Semester	-	-	-

**EDCI 571. In-Service Education. 1-4 Credits.** (1-4 Lec; 4 cr max) On Demand

PREREQUISITE: Graduate standing and employment by sponsoring school organization. An approved supervised group study of an educational problem within a local school supervised by an MSU faculty member which culminates in a special report to be filed with the local district and the.

CRN	Section	Session/Dates	Days	Location	Time
10605	001	Intersession	-	-	-

**EDCI 575. Professional Paper and Project. 1-4 Credits.** (1-4 Ind; 6 cr max) F,S

PREREQUISITE: Graduate standing, EDCI 506. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10529	001	Intersession	-	-	-

**EDCI 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind) F,S,Su  
 PREREQUISITE: Master's standing and approval of the department head. This course may be used only by students who have completed all of their coursework (and thesis if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10530	001	Intersession	-	-	-

**EDCI 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing. Restricted Entry: Requires contract with major advisor. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10531	001	Intersession	-	-	-

**EDCI 591. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand  
 PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11515	801	Non-standard term dates 13- JUN-16 29-JUL-16	-	-	-

**EDCI 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Graduate standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11175	001	Full Semester	-	-	-

**EDCI 598. Internship. 1-12 Credits.** (1-12 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with a school, agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
11176	001	Full Semester	-	-	-

**EDCI 604. Advanced Educational Psychology. 3 Credits.** (3 Lec) F  
 PREREQUISITES: Graduate standing or permission of the instructor. An examination of theory and research related to the diverse learning and motivation needs of K-12 students. Practical implications for effective teaching will be identified throughout the course.

CRN	Section	Session/Dates	Days	Location	Time
11395	001	Full Semester	-	-	-

**EDCI 690. Doctoral Thesis. 1-12 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Doctoral standing. Restricted Entry: Requires contract with major advisor. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10532	001	Intersession	-	-	-

## EDEC - Early Childhood Education

**EDEC 496. Early Childhood Advanced Practicum. 3-6 Credits.** (3-6 Lab; 6 cr max) S,Su  
 on demand PREREQUISITE: Senior standing in major and student teaching applicant screening required. Senior capstone course. Supervised experience in programs for young children and collaboration with early childhood professionals in the community. Students will be responsible for lesson planning and teaching, as well as supervision and evaluation of young children in an NAEYC-accredited classroom.

CRN	Section	Session/Dates	Days	Location	Time
11058	001	First Half Session	M	HH210C	2:10pm - 3:00pm

**EDEC 498. EC Internship. 1-12 Credits.** (1-12 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Consent of instructor. An individualized assignment with a professional agency to provide a guided field experience. All students must receive department permission prior to registration.

CRN	Section	Session/Dates	Days	Location	Time
10851	001	Full Semester	-	-	-

## EDLD - Education Leadership

**EDLD 531. Theoretical Fndtns/Col Stdnts. 3 Credits.** (3 Lec) On Demand  
 PREREQUISITE: Graduate standing. This course will introduce the theories which have been advanced regarding college students and the professional practice of student affairs. The course will examine the similarities and differences among college student and the impact which different environments and policies may have on student psycho-social development, learning attitudes, values, behaviors, and satisfaction with college.

CRN	Section	Session/Dates	Days	Location	Time
11143	001	Intersession	-	-	-

**EDLD 564. The Comprehensive Portfolio. 3 Credits.** (3 Lec) Su, On Demand  
 PREREQUISITE: Consent of Instructor. Students create a professional portfolio to evidence their vision of learning, the culture of teaching and learning, community/school relationships, and the social, cultural, ethical, legal, political, and economic context of schooling.

CRN	Section	Session/Dates	Days	Location	Time
10535	001	Intersession	-	-	-
10850	003	Intersession	-	-	-

**EDLD 571. In-Service Education. 1-4 Credits.** (1-4 Lec, 1-4 Lab; 6 cr max) On Demand

PREREQUISITE: Graduate standing and employment by sponsoring school organization. A carefully supervised group study of an educational problem. The study will culminate in a special report, syllabus, blueprint, course of study or guide book or report to be filed with the local administrator and with the.

CRN	Section	Session/Dates	Days	Location	Time
10536	001	Intersession	-	-	-

**EDLD 575. Prof Paper & Project. 1-4 Credits.** (1 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10537	001	Intersession	-	-	-

**EDLD 589. Graduate Consultation. 1-3 Credits.** (3 Ind; 3 cr max) F,S,Su  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10538	001	Intersession	-	-	-

**EDLD 590. Master's Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing. This course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10539	001	Intersession	-	-	-

**EDLD 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Graduate standing, consent of instructor, approval of the Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11177	001	Full Semester	-	-	-

**EDLD 598. Internship. 2-12 Credits.** (2 Ind; 12 cr max) On Demand  
 PREREQUISITE: Graduate standing, consent of instructor and approval of advisor. Note: OPI Interns must have EDLD 507, EDLD 508, EDLD 532. The internship course is designed for those required to include practical experience as part of their degree. Course content is informed by bridging theory with practice and the on-the-job expectations and responsibilities.

CRN	Section	Session/Dates	Days	Location	Time
11178	001	Full Semester	-	-	-

**EDLD 616. Organization and Administration of Higher Education. 3 Credits.** (3 Lec) F

In this course students will examine the different organizational structures that characterize and govern American higher education. In this introduction to the field of higher education governance, organization and change structures and influences will be examined.

CRN	Section	Session/Dates	Days	Location	Time
11392	001	Full Semester	-	-	-

**EDLD 690. Doctoral Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su

PREREQUISITE: Doctoral standing. Restricted Entry. This course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10542	001	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-

**EDSP - Special Education**

**EDSP 306. Exceptional Learners. 3 Credits.** (3 Lec) F,S,Su

PREREQUISITE: EDEC 160 or EDU 222IS or EDU 223IS, and junior standing. Categories of exceptionality and implications for educators. Historical, societal, familial and educational attitudes; legal requirements of Preschool Amendments, IDEA and ADA including IEPs, IFSPs, 504s, FBAs, and BIPs. Identification, intervention, and best practices including multi-tiered systems of support (MTSS) and RTI.

CRN	Section	Session/Dates	Days	Location	Time
11014	001	First Half Session	MTW	WIL1142	7:30am - 9:50am

**EDU - Education**

**EDU 263. Methods of Teaching Grammar. 3 Credits.** (3 Lec) F,S

This course explores the structure and function of the English language. In particular, study of grammar including the eight parts of speech, types of phrases and clauses, sentence structure and fluency, word usage, and other language conventions will be addressed.

CRN	Section	Session/Dates	Days	Location	Time
10848	001	Full Semester	-	-	-

**EDU 330. Emergent Literacy. 3 Credits.** (3 Lec) F,S,Su alternate years to be offered even years PREREQUISITE: EDU 331, EDU 382, Junior Standing.

Current theory concerning emergent literacy and developmentally appropriate classroom practices. Emphasis is on a balanced approach which includes phonics and other cue systems, use of authentic children's literature, and use of programmed reading materials.

CRN	Section	Session/Dates	Days	Location	Time
10849	001	Non-standard term dates 06- JUN-16 30-JUN-16	MTWR	REID124	12:30pm - 3:30pm

**EDU 332. Lit and Arts in Context. 9 Credits.** (3 Lec, 6 Lab) Su

Study of British and French literature for children is integrated with experiences in the arts. The course includes a three-week trip to England and France where participants will visit historical sites and see performances that bring stories to life.

CRN	Section	Session/Dates	Days	Location	Time
11050	001	Full Semester	-	-	-
11050	001	Full Semester	-	-	-

**EDU 342. Managing the Learning Envir. 3 Credits.** (3 Lec) F,S

PREREQUISITE: EDU 382 and good standing in the Teacher Education Program. This course examines key factors in establishing a healthy learning environment for K-12 students. The course will explore factors that contribute to student success such as school law and policy and their relationship to the establishment of effective and respectful management, engaging classroom instruction, and meaningful learning for all students.

CRN	Section	Session/Dates	Days	Location	Time
11031	001	Non-standard term dates 09- MAY-16 02-JUN-16	F	REID124	7:30am - 11:05am

**EDU 370. Integrating Tech into Educ. 2 Credits.** (1 Lec, 1 Lab) F,S,Su

COREQUISITE: EDU 222 or EDU 223, sophomore standing. Exploration of technology use in society and effects on teaching and learning. Includes strategies for developing technology-rich curriculum and techniques for enhancing learning through integration of technology and 21 century skills.

CRN	Section	Session/Dates	Days	Location	Time
10525	801	Non-standard term dates 09- MAY-16 01-JUL-16	-	-	-
11107	002	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-

**EDU 395. Practicum. 3 Credits.** (3 Lab; 12 cr max) F,S,Su

PREREQUISITE: Completion of M 133Q, EDU 382, and good standing in Teacher Education Program. COREQUISITE: Methods course in teaching major. Students will be assigned to school classrooms to observe children, teachers, and teaching strategies and to co-teach lessons in classrooms. Sections will be specific to grade level 5-12, K-8, or K-12. See advisor for appropriate section and information on term offerings.

CRN	Section	Session/Dates	Days	Location	Time
10857	001	Non-standard term dates 09- MAY-16 02-JUN-16	MWR	-	8:00am - 4:00pm
10857	001	Non-standard term dates 09- MAY-16 02-JUN-16	F	REID126	11:15am - 1:15pm
10857	001	Non-standard term dates 09- MAY-16 02-JUN-16	T	REID126	2:30pm - 4:00pm
10858	002	Non-standard term dates 09- MAY-16 02-JUN-16	MWR	-	8:00am - 4:00pm
10858	002	Non-standard term dates 09- MAY-16 02-JUN-16	F	REID124	11:15am - 1:15pm
10858	002	Non-standard term dates 09- MAY-16 02-JUN-16	T	REID124	2:30pm - 4:00pm

**EDU 397. Methods. 3 Credits.** (2 Lec, 1 Lab; 25 cr max)

METHODS K-5 ART: PREREQUISITE: EDU 382 and good standing in the Teacher Education Program. Experiences which enhance student understanding of how children make art, appreciate historical aspects of art, and construct their place in a social world. Students explore these concerns through studio experiences, readings, written reports, and locating and gathering resources for teaching art. METHODS K-8 CREATIVE ARTS: PREREQUISITE: EDU 382 and good standing in the Teacher Education Program. This course provides active engagement with the elements and skills of the creative arts, principally focusing on visual art and music. Teacher candidates prepare to guide school age learners as they engage in creative processes and explore historical and cultural aspects of the arts. METHODS K-4 HEALTH ENHANCEMENT: PREREQUISITE: EDU 382 and good standing in Teacher Education Program. The theoretical and practical aspects of teaching health enhancement in the elementary schools. METHODS K-8 HEALTH ENHANCEMENT: The class is designed to provide the elementary education student with a conceptual understanding of school-age health enhancement (health and physical education), to include relationships between movement concepts and skill analysis, the ten comprehensive school health areas, and health-related behaviors. METHODS K-8 LANGUAGE ARTS: PREREQUISITE: EDU 331 and good standing in Teacher Education Program. This course provides instruction in best practices for teacher candidates, which links current theory and practice of literacy instruction in grades K-8. Through experiential learning, students will explore methods and approaches to teaching English language arts. METHODS K-8 MATH: PREREQUISITE: EDU 382, M 132, M 133Q, M 234, and good standing in Teacher Education Program. This course focuses on mathematics and mathematics teaching methods, mathematics diagnosis and correction, and mathematics curriculum standards for the K-8 classroom. METHODS K-8 SCIENCE: PREREQUISITE: EDU 382, completion of 3 required science courses, and good standing in Teacher Education Program. This course focuses upon methods of teaching science inquiry skills, content, and attitudes in the elementary classroom.

CRN	Section	Session/Dates	Days	Location	Time
10859	001	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-
10860	002	Non-standard term dates 06- JUN-16 30-JUN-16	MTWR	REID124	8:30am - 11:30am
10861	003	Non-standard term dates 16- MAY-16 05-AUG-16	MTWR	REID124	8:30am - 11:30am

**EDU 397R. Methods:K-8 Social Studies. 3 Credits.** (3 Lec) F,S,Su odd years 3 cr. Lec 3 PREREQUISITE: EDU 382, completion of 3 required social science courses, and good standing in the Teacher Education Program. Identification of goals, objectives, and instructional strategies for elementary social studies.

CRN	Section	Session/Dates	Days	Location	Time
11373	001	Non-standard term dates 11- JUL-16 04-AUG-16	MTWR	REID425	12:30pm - 3:30pm

**EDU 401. Intro Lit Leadership Ed. 3 Credits.** (3 Lec) F,S

PREREQUISITE: EDU 330 or EDU 397 (K-8 Methods: Language Arts), and good standing in Teacher Education Program, or consent of instructor. PREREQUISITE or COREQUISITE: EDU 395. This course will introduce students to the role and responsibilities of reading specialists in the professional school setting. Topics include collaborating with colleagues, parents, and the community, current practice in literacy professional development, and reading policy.

CRN	Section	Session/Dates	Days	Location	Time
11052	001	Intersession	-	-	-

**EDU 408. Professional Issues: K-12. 2 Credits.** (2 Lec) F,S

PREREQUISITE: Senior standing, completion of all coursework, and good standing in Teacher Education Program. COREQUISITE: EDU 495. Overview of salient issues to include applied evaluation, classroom management and discipline, cooperative learning, law, contracts, certification, professional organizations, ethics, resume, job seeking, and professionalism.

CRN	Section	Session/Dates	Days	Location	Time
11106	001	Full Semester	-	-	-

**EDU 438. Ltrcy Asmnt, Diagnos and Instr. 3 Credits.** (2 Lec, 1 Lab) F,S

PREREQUISITE: EDU 330 or EDU 397 (Methods: K-8 Language Arts), and EDU 438, and good standing in Teacher Education Program. Current theory and techniques in literacy assessment and individualization. Emphasis will be on specific instructional strategies that focus on independence in reading and writing. A practicum is included.

CRN	Section	Session/Dates	Days	Location	Time
11418	001	Non-standard term dates 11- JUL-16 04-AUG-16	MTWR	-	8:30am - 11:30am

**EDU 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand Max 6 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10546	001	Intersession	-	-	-

**EDU 495. Student Teaching. 5-16 Credits.** (5-16 Ind; 16 cr max) F,S,Su 5-16 cr. IND PREREQUISITE: Senior standing, completion of all required coursework and good standing in Teacher Education Program. COREQUISITE: EDU 408 for Student Teaching Level 5-12. Specific sections determine grade level: either K-8, 5-12, or K-12. Observation and teaching in a classroom setting; preparation and delivery of lesson plans, and teacher work sample. The student teaching experience will occur under the supervision of experience teachers and MSU field supervisors.

CRN	Section	Session/Dates	Days	Location	Time
10733	001	Full Semester	-	-	-

**EDU 498. Internship. 1-5 Credits.** (1-5 Ind; 5 cr max) On Demand Max 5 cr. PREREQUISITE: EDU 382 and consent of instructor. An individualized assignment with a professional agency to provide a guided field experience.

CRN	Section	Session/Dates	Days	Location	Time
11391	001	Full Semester	-	-	-

**EDU 602. Educational Statistics II. 3 Credits.** (3 Lec) Su

PREREQUISITE: EDCI 501. The application of statistical processes to the analysis of educational data. Educational problems that apply multifactor ANOVA, multiple comparison techniques, ANCOVA, multiple regression, and factor analysis in their solution are included.

CRN	Section	Session/Dates	Days	Location	Time
11394	001	Full Semester	-	-	-

**EDU 650. Dissertation Seminar. 3 Credits.** (3 Sem) F PREREQUISITES: Graduate standing and as determined for each offering. Topics offered at the graduate level that are not covered in regular courses. Students participate in preparing and presenting discussion material.

CRN	Section	Session/Dates	Days	Location	Time
11393	001	Full Semester	-	-	-

## EELE - Electrical Engineering

**EELE 203. Circuits II for Engineering. 4 Credits.** (3 Lec, 1 Lab) S

PREREQUISITE: EELE 201, M 274. Natural and forced response of R-L-C circuits, frequency response of R-L-C circuits and Bode plots, frequency response, slew-rate and DC imperfections of real op-amps; Laplace Transform, Fourier series and Fourier Transform techniques in circuit analysis; basic R-L-C and op-amp filters; two port networks.

CRN	Section	Session/Dates	Days	Location	Time
10839	001	First Half Session	MTWR	ROBH121	9:00am - 11:00am
10840	002	First Half Session	F	ROBH121	9:00am - 12:00pm

**EELE 261. Intro To Logic Circuits. 4 Credits.** (3 Lec, 1 Lab) F,S

An introductory course in the fundamental concepts of classical digital design. Course covers design and implementation of combinational logic circuits, synchronous sequential circuits and information storage circuits. Basic concepts of Hardware Description Languages(HDLs), design and simulation of digital systems using HDLs, and digital system implementation with programmable logic devices are presented.

CRN	Section	Session/Dates	Days	Location	Time
11115	001	Full Semester	-	-	-

**EELE 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10111	001	Full Semester	-	-	-

**EELE 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10112	001	Full Semester	-	-	-

**EELE 498. Internship. 1-2 Credits.** (1 Ind; 12 cr max) F,S,Su PREREQUISITE: Sophomore standing and consent of instructor. On-site, one semester practicum under guidance of employer designated mentor.

CRN	Section	Session/Dates	Days	Location	Time
10113	001	Full Semester	-	-	-

**EELE 575. Research/Prof Paper/Project. 3-6 Credits.** (3-6 Ind; 6 cr max) F,S,Su IND Maximum 6 cr. PREREQUISITE: Graduate standing. A research or professional paper dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee. This course is required for students in the Electrical Engineering non-thesis (plan B) master's degree program.

CRN	Section	Session/Dates	Days	Location	Time
10431	001	Full Semester	-	-	-

**EELE 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind; 3 cr max) F,S,Su TUT Maximum 3 cr. PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10114	001	Full Semester	-	-	-

**EELE 590. Masters' Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10115	001	Full Semester	-	-	-

**EELE 592. Independent Study. 1-6 Credits.** (1-6 Ind; 6 cr max) -- Independent study for electrical engineering students.

CRN	Section	Session/Dates	Days	Location	Time
10783	001	Full Semester	-	-	-

**EELE 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10116	001	Full Semester	-	-	-

## EENV - Environmental Engineering

**EENV 490R. Undergraduate Research. 1-6 Credits.** (1 Ind) F,S,Su  
 Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10404	001	Full Semester	-	-	-

**EENV 492. Independent Study. 1-3 Credits.** (1-3 Ind; 4 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor, and approval of Department Head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10098	001	Full Semester	-	-	-
10099	002	First Half Session	-	-	-
10100	003	Second Half Session	-	-	-

**EENV 575. Research or Prof Paper/Project. 1-4 Credits.** (1 Ind; 6 cr max) F,S,Su  
 Max 6 cr. PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major adviser and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10131	001	Full Semester	-	-	-

**EENV 589. Graduate Consultation. 3 Credits.** (3 Lec) On Demand  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their coursework (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10137	001	Full Semester	-	-	-

**EENV 590. Master's Thesis. 1-10 Credits.** (1 Ind; max unlimited) On Demand  
 PREREQUISITE: Master's standing. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10139	001	Full Semester	-	-	-

**EENV 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 PREREQUISITE: Graduate standing, consent of instructor, approval of Department Head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10130	001	Full Semester	-	-	-

## EGEN - General Engineering

**EGEN 125CS. Tech, Innovation, and Society. 3 Credits.** (3 Lec) F,Su  
 This course explores the innovative engineering processes that connect the creative elements of science and engineering with solving problems of everyday life. Topics include understanding the role of creativity, public safety and ethics in creating technological solutions. Case studies are investigated, including applying critical thinking to exploring how innovation can help society.

CRN	Section	Session/Dates	Days	Location	Time
10558	001	Second Half Session	TWR	COBH429	12:30pm - 2:50pm

**EGEN 201. Engineering Mechanics--Statics. 3 Credits.** (3 Lec) F,S  
 Su PREREQUISITE: PHSX 220 or PHSX 240. COREQUISITE: M 273Q or M 283Q. Equilibrium of particles and rigid bodies; static analysis of structures including trusses, beams, frames and machines; coulomb friction; area and mass centroids, moments and products of inertia.

CRN	Section	Session/Dates	Days	Location	Time
10290	001	First Half Session	MTWR	ROBH307	10:00am - 11:05am
10290	001	First Half Session	TR	ROBH307	3:00pm - 4:05pm
10817	002	First Half Session	-	-	-

**EGEN 202. Engineering Mechanics: Dynamics. 3 Credits.** (3 Lec) F  
 S; Su on demand PREREQUISITE: EGEN 201 or EGEN 221 and M 273Q or M 283Q. Kinematics, kinetics, work-energy, and impulse-momentum for particles and rigid bodies.

CRN	Section	Session/Dates	Days	Location	Time
10467	001	First Half Session	MTWR	ROBH307	8:00am - 9:40am
10818	002	First Half Session	-	-	-

**EGEN 203. Applied Mechanics. 3 Credits.** (3 Lec) F,S  
 PREREQUISITE: PHSX 205 or PHSX 220 or PHSX 240. COREQUISITE: M 166Q or M 172Q. Force systems in equilibrium and applications to structural trusses and frames; section properties; distributed force systems; shear and moment distributions in beams; basic particle dynamics.

CRN	Section	Session/Dates	Days	Location	Time
10919	001	First Half Session	MTWR	ROBH210	8:00am - 9:40am

**EGEN 205. Mechanics of Mtls (equiv 305). 3 Credits.** (3 Lec) F,S,Su On Demand  
 PREREQUISITE: EGEN 201 or EGEN 221. Stress and strain, Hooke's Law, thermal strain, torsion, bending of beams, combined stress, limit analysis, energy methods, virtual work, column theory.

CRN	Section	Session/Dates	Days	Location	Time
10490	001	Second Half Session	TR	ROBH210	7:55am - 9:55am
10490	001	Second Half Session	MW	ROBH307	8:00am - 9:15am
10819	002	Second Half Session	-	-	-

**EGEN 208. Applied Strength of Materials. 3 Credits.** (3 Lec) F,S  
 LEC 3 PREREQUISITE: EGEN 201 or EGEN 203 or EGEN 221. Equilibrium and deformation of structural elements; concepts of stress and strain and interrelationship; representation and transformation of combined stress states; axial, torsional and flexural stresses and deformation; column buckling.

CRN	Section	Session/Dates	Days	Location	Time
10933	001	Second Half Session	MTWR	ROBH301	8:00am - 9:40am

**EGEN 310R. Multidisciplinary Engineering Design. 3 Credits.** (3 Lec) F,S  
 PREREQUISITE: Junior standing in an Engineering curriculum or consent of instructor. Introduces engineering students to topics such as design process, creative design, project management, teamwork, and technical leadership while highlighting the skills needed to work in a multi-disciplinary environment.

CRN	Section	Session/Dates	Days	Location	Time
11033	001	First Half Session	MTW	ROBH102	2:00pm - 3:40pm

**EGEN 324. Applied Thermodynamics. 3 Credits.** (3 Lec) F  
 S PREREQUISITE: PHSX 205 or PHSX 220. COREQUISITE: M 166Q or M 172Q. General treatment of the basic laws of thermodynamics and engineering applications with introduction to heat transfer for curricula not requiring EMEC 320/EMEC 321 series.

CRN	Section	Session/Dates	Days	Location	Time
11290	001	First Half Session	MTWR	ROBH321	12:00pm - 1:40pm

**EGEN 325. Engineering Economic Analysis. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: Junior standing, M 171Q or M 165Q, or instructor approval. Methods for comparing and evaluating capital investment alternatives. Concepts include the time value of money, rates of return, cash flows, incremental analysis, depreciation, influences of taxes, inflation and deflation, depreciation, replacement analysis. Emphasis is placed upon evaluating various engineering alternatives. Some open-ended design problems are included.

CRN	Section	Session/Dates	Days	Location	Time
10167	001	First Half Session	TR	ROBH208	11:15am - 12:20pm
10167	001	First Half Session	MW	ROBH208	11:15am - 1:35pm

**EGEN 335. Fluid Mechanics. 3 Credits.** (3 Lec) F,S  
 Su on demand PREREQUISITE: EGEN 202, EGEN 205. Introduction to modern fluid mechanics.

CRN	Section	Session/Dates	Days	Location	Time
10872	802	Second Half Session	-	-	-
11462	801	Second Half Session	-	-	-

**EGEN 350. Applied Engineering Data Analysis. 2 Credits.** (2 Lec) F,S,Su  
 PREREQUISITE: M 166Q or M 172Q. An overview of data variability and applied statistical analysis techniques for a broad range of engineering disciplines. Topics include fundamentals of probability, essential probability distributions, hypothesis testing, experimental design strategies, and regression in the context of engineering applications.

CRN	Section	Session/Dates	Days	Location	Time
10311	001	First Half Session	MTWR	ROBH209	10:00am - 11:05am

**EGEN 492. Independent Study. 1-3 Credits.** (1 Ind; 4 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor, and approval of Department Head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10117	001	Full Semester	-	-	-
10118	002	First Half Session	-	-	-
10119	003	Second Half Session	-	-	-

## EIND - Industrial Engineering

**EIND 434. Project and Engineering Management. 3 Credits.** (3 Lec) F,Su  
 PREREQUISITE: Junior standing. Fundamental principles of planning, estimating, budgeting, scheduling, implementing, evaluation, and controlling engineering and research projects. Common engineering management concerns such as labor scheduling, human resources management, and related governmental compliance also explored.

CRN	Section	Session/Dates	Days	Location	Time
11297	001	First Half Session	-	-	-

**EIND 490R. Undergrad Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Junior standing, consent of instructor, and approval of certifying officer. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10444	001	Full Semester	-	-	-

**EIND 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: Junior standing, consent of instructor, and approval of department head or director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10168	001	Full Semester	-	-	-
10169	002	First Half Session	-	-	-
10170	003	Second Half Session	-	-	-

**EIND 575. Research or Prof Paper/Project. 1-4 Credits.** (1-4 Ind) F,S,Su  
 PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student, major advisor, and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10171	001	Full Semester	-	-	-

**EIND 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind) F,S,Su  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their coursework (and thesis if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10172	001	Full Semester	-	-	-

**EIND 590. Master's Thesis. 1-10 Credits.** (1-10 Ind) F,S,Su  
 PREREQUISITE: Master's standing; consent of instructor.

CRN	Section	Session/Dates	Days	Location	Time
10173	001	Full Semester	-	-	-

**EIND 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind) F,S,Su  
 PREREQUISITE: Doctoral standing; consent of instructor.

CRN	Section	Session/Dates	Days	Location	Time
10345	001	Full Semester	-	-	-

## EM - Engineering Mechanics

**EM 592. Independent Study. 1-3 Credits.** (1 Ind; 4 cr max) On Demand  
 Max 4 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of Department Head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10120	001	Full Semester	-	-	-

## EMEC - Mechanical Engineering

**EMEC 103. CAE I-Engineering Graphics Communications. 2 Credits.** (2 Lab) F,S,Su

on demand PREREQUISITE: ME, MET, or IE majors only. COREQUISITE: M 171Q for ME and IE majors; M 151Q for MET majors. Communication through engineering graphics. The course topics include drawing utilizing sketching, 2-D CAD and 3-D solid modeling software, drawing standards, fits, and tolerances.

CRN	Section	Session/Dates	Days	Location	Time
11053	001	First Half Session	MTWR	EPS134	12:00pm - 2:25pm

**EMEC 292. Independent Study. 1-3 Credits.** (1-3 Ind) F,S,Su  
 PREREQUISITE: Consent of instructor and approval of department head or director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10202	001	Full Semester	-	-	-
10294	002	First Half Session	-	-	-
10295	003	Second Half Session	-	-	-

**EMEC 320. Thermodynamics I. 3 Credits.** (3 Lec) F,S  
 PREREQUISITE: EGEN 201. Basic thermodynamic concepts, first and second laws, open and closed systems, properties of ideal and real substances, work, heat, irreversibility, and availability.

CRN	Section	Session/Dates	Days	Location	Time
11291	001	First Half Session	MTWR	ROBH218	10:00am - 11:40am

**EMEC 403. CAE IV--Design Integration. 3 Credits.** (1 Lec, 2 Lab) F on demand; S PREREQUISITE: EMEC 103 or EMEC 303; or instructor's consent; junior standing. Develop the ability to use solid and parametric modeling to design and document machine parts. Geometric dimensioning and tolerancing, auxiliary views, analysis of models, advanced modeling techniques and customization are covered through hands-on experiences.

CRN	Section	Session/Dates	Days	Location	Time
11292	001	First Half Session	MW	EPS134	8:00am - 9:05am
11292	001	First Half Session	TR	EPS134	8:00am - 11:00am
11292	001	First Half Session	MW	EPS134	9:06am - 11:00am

**EMEC 490R. Undergraduate Research. 1-6 Credits.** (1-6 Ind) F,S,Su  
 PREREQUISITE: Junior standing, consent of instructor, and approval of certifying officer. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10445	001	Full Semester	-	-	-

**EMEC 492. Independent Study. 1-3 Credits.** (1-3 Ind) F,S,Su  
 PREREQUISITE: Junior standing, consent of instructor, and approval of department head or director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10203	001	Full Semester	-	-	-
10204	002	First Half Session	MTWR	ROBH321	10:00am - 11:05am
10205	003	Second Half Session	-	-	-

**EMEC 498. Internship. 1-12 Credits.** (1 Ind) F,S,Su  
 PREREQUISITE: Junior standing and consent of internship coordinator. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10206	001	Full Semester	-	-	-

**EMEC 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind) F,S,Su  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their coursework (and thesis, if on a thesis plan) but who need additional faculty or staff time.

CRN	Section	Session/Dates	Days	Location	Time
10208	001	Full Semester	-	-	-

**EMEC 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; unlimited max) F,S,Su  
 PREREQUISITE: Master's standing; consent of instructor. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10209	001	Full Semester	-	-	-

**EMEC 592. Independent Study. 1-3 Credits.** (1-3 Ind) F,S,Su  
 PREREQUISITE: Graduate standing, consent of instructor, approval of department head or director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10207	001	Full Semester	-	-	-

**EMEC 598. Internship. 1-12 Credits.** (1-3 Ind) On Demand  
 PREREQUISITE: Graduate standing, consent of instructor and approval of graduate program coordinator. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10363	001	Full Semester	-	-	-

**EMEC 690. Doctoral Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su  
 Max credits unlimited. PREREQUISITE: Doctoral standing; consent of instructor.

CRN	Section	Session/Dates	Days	Location	Time
10210	001	Full Semester	-	-	-

## ENGL - English

**ENGL 575. Professional Paper. 1-6 Credits.** (1-6 Ind; 6 cr max) F,S,Su  
 Max 6 cr. PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10291	001	Full Semester	-	-	-

**ENGL 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; 10 cr max) F,S,Su  
 PREREQUISITE: Graduate standing. A thesis dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10292	001	Full Semester	-	-	-

**ENGL 592. Independent Study. 1-4 Credits.** (1 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department chair and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10799	001	Full Semester	-	-	-
10800	002	First Half Session	-	-	-
10801	003	Second Half Session	-	-	-

**ENGL 598. Internship. 1-12 Credits.** (1-12 Int; 12 cr max) On Demand  
 PREREQUISITE: Graduate standing, consent of instructor, approval of the department chair, and completion of 15 credits of graduate work in English. An individualized assignment arranged with an agency, business, school, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10802	001	Full Semester	-	-	-

## ENSC - Environmental Science

**ENSC 290R. Undergraduate Research. 1-4 Credits.** (1 Ind; 12 cr max) F,S,Su  
 1 - 4 cr. IND May be repeated. Maximum 12 cr. PREREQUISITE: Freshman or sophomore standing and approval of instructor. Course will address responsible conduct of research. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or other creative project.

CRN	Section	Session/Dates	Days	Location	Time
10434	001	Full Semester	-	-	-

**ENSC 292. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 1-3 cr. IND Maximum 6 cr. PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10332	001	Full Semester	-	-	-

**ENSC 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S  
 1 - 4 cr. IND May be repeated. Maximum 12 cr. PREREQUISITE: Junior or Senior standing and approval of instructor. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. USP scholarships or project support grants are available in many cases. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10433	001	Full Semester	-	-	-

**ENSC 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 1 - 3 cr. IND Maximum 6 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10174	001	Full Semester	-	-	-

**ENSC 498. Internship. 2-4 Credits.** (2 Ind; 12 cr max) F  
 S, Su 2 - 4 cr. IND Maximum 12 cr. PREREQUISITE: Junior standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10175	001	Full Semester	-	-	-

## ENTO - Entomology

**ENTO 590. Master's Thesis. 1-10 Credits.** (1 Ind; max unlimited) F  
 S, Su 1-10 cr. IND Maximum credits unlimited. PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10129	001	Full Semester	-	-	-

**ENTO 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 1 - 3 cr. IND Maximum 4 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of Department Head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10128	001	Full Semester	-	-	-

## ERTH - Earth Systems

**ERTH 101IN. Earth System Sciences. 4 Credits.** (3 Lec, 1 Lab) F,S,Su  
 Examination of basic geologic processes, Earth and planets through geologic time, internal geosystems, and surficial geosystems.

CRN	Section	Session/Dates	Days	Location	Time
11090	001	First Half Session	MTW	TRAP225	8:45am - 11:05am
11091	002	First Half Session	MW	GH145	11:15am - 1:05pm

**ERTH 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
 Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10406	001	Full Semester	-	-	-

**ERTH 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S,Su  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10145	001	Full Semester	-	-	-

**ERTH 590. Master's Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10143	001	Full Semester	-	-	-



**ERTH 591. Special Topics. 1-4 Credits.** (1-4 Sem; 12 cr max)

PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11512	801	Intersession	-	-	-
11513	802	Non-standard term dates 31-MAY-16 05-AUG-16	-	-	-
11514	803	Intersession	-	-	-

**ERTH 598. Internship. 2-12 Credits.** (2 Ind; 12 cr max) On Demand

PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10706	001	Full Semester	-	-	-

**ERTH 690. Dissertation Research. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su

PREREQUISITE: Doctoral candidate standing.

CRN	Section	Session/Dates	Days	Location	Time
10342	001	Full Semester	-	-	-

**ETCC - Engr Tech, Civil & Contr****ETCC 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor, and approval of Department Head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10056	001	Full Semester	-	-	-
10057	002	First Half Session	-	-	-
10058	003	Second Half Session	-	-	-

**ETCC 498. Internship. 1-2 Credits.** (1-2 Ind; 12 cr max) On Demand

PREREQUISITE: Sophomore standing, consent of instructor, and approval of Department Head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field. Students may not take this course the semester they graduate.

CRN	Section	Session/Dates	Days	Location	Time
10059	001	Non-standard term dates 16-MAY-16 12-AUG-16	-	-	-

**ETME - Engr Tech, Mechanical****ETME 215. Manufacturing Processes. 3 Credits.** (3 Lec) F

S; Su on demand PREREQUISITE: EMAT 251 or EMEC 250. Basic methods of processing materials to change shapes, dimensions, and finishes; special attention to attendant forces, temperature, and property changes.

CRN	Section	Session/Dates	Days	Location	Time
11293	001	First Half Session	MTWR	ROBH319	8:00am - 9:40am

**ETME 292. Independent Study. 1-3 Credits.** (1-3 Ind) F,S,Su

PREREQUISITE: Consent of instructor and approval of department head or director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10212	001	Full Semester	-	-	-
10213	002	First Half Session	-	-	-
10214	003	Second Half Session	-	-	-

**ETME 310. Machining and Industrial Safety. 3 Credits.** (1 Lec, 2 Lab) F,S

Annually PREREQUISITE: ETME 203 or equivalent, or TE 230 for non-majors, or instructor approval. COREQUISITE: ETME 216. Offered Summers on demand.

Introduction to modern machining technology and the key principles of industrial safety, material properties related to machining practices, design, and specifications. Semi-precision and precision lay-out are covered. An introduction to computer numerically controlled (CNC) technology and operations is included. Specific hands-on experiences included in laboratory.

CRN	Section	Session/Dates	Days	Location	Time
11054	001	First Half Session	MTW	EPS136	1:45pm - 2:30pm
11055	002	First Half Session	MTW	EPS136	2:40pm - 5:30pm

**ETME 311. Joining Processes. 3 Credits.** (1 Lec, 2 Lab) F,S

PREREQUISITE: EMEC 103 or equivalent, or TE 230 for non-majors, or instructor approval. COREQUISITE: ETME 216. Offered Summers on demand. Introduction to the modern science of joining technology, and detailed examination of metallurgy and materials properties as related to joining processes. Introduction to welding specification and symbols, and modern welding code usage. Weld design, set-up, preparation, application, and tests are emphasized. Specific hands-on experiences in OAW, SMAW, GMAW, GTAW, common separating processes; destructive and non-destructive testing are included in laboratory. This course will also expose students to other fastening joining techniques used in industry. Resistance welding, composites, riveting, and mechanical fastening and their application will be explored.

CRN	Section	Session/Dates	Days	Location	Time
11294	001	First Half Session	MTW	EPS132	8:00am - 9:15am
11295	002	First Half Session	MTW	EPS132	9:25am - 12:15pm

**ETME 360. Measurements and Instrumentation Applications. 3 Credits.** (2 Lec, 1 Lab) F

S; Su on demand PREREQUISITE: EELE 250, or equivalent. COREQUISITE: EGEN 350, EGEN 324. Theory and application of engineering technology measurement concepts including function and operation of transducers; temperature, pressure, displacement and flow sensing; sensor system calibration; statistical and uncertainty analysis; sampling theory fundamentals; signal conditioning; 1st order response; emphasis on applications involving computerized acquisition of data.

CRN	Section	Session/Dates	Days	Location	Time
11296	001	Second Half Session	TW	EPS008F	11:15am - 12:20pm
11296	001	Second Half Session	TW	EPS008F	12:30pm - 2:40pm
11296	001	Second Half Session	TW	EPS008F	2:50pm - 3:55pm

**ETME 490R. Undergraduate Research. 1-6 Credits.** (1-6 Ind) F,S,Su

PREREQUISITE: Junior standing, consent of instructor, and approval of certifying officer. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10446	001	Full Semester	-	-	-

**ETME 492. Independent Study. 1-3 Credits.** (1-3 Ind) F,S,Su

PREREQUISITE: Junior standing, consent of instructor, and approval of department head or director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10215	001	Full Semester	-	-	-
10216	002	First Half Session	-	-	-
10217	003	Second Half Session	-	-	-

**ETME 498. Internship. 1-12 Credits.** (1-12 Ind) F,S,Su

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10218	001	Full Semester	-	-	-

**FCS - Family and Consumer Sciences****FCS 101IS. Indiv and Fam Dev: Lifespan. 3 Credits.** (3 Lec) F,S

Su, On Demand Examination of individual growth, development, and well-being within families across the lifespan from conception to death. Emphasis on classical and contemporary individual developmental, and family theories, current research, and practical applications for practitioners, teachers, and parents.

CRN	Section	Session/Dates	Days	Location	Time
10495	802	First Half Session	-	-	-
10583	801	First Half Session	-	-	-

**FCS 261. Adult Development and Aging. 3 Credits.** (3 Lec) S

PREREQUISITE: FCS 101IS or EDEC 160 for majors and social science core for non-majors. Focus on the adult stages of the life span and families with adult children; issues include intergenerational relationships; gender differences in individual, family, and career development; and the demographic and economic consequences of an aging population.

CRN	Section	Session/Dates	Days	Location	Time
11335	801	Second Half Session	-	-	-

**FCS 263. Relationships and Fam Systems. 3 Credits.** (3 Lec) F  
 S PREREQUISITE: Sophomore standing. Relationship development across the life cycle from a family systems perspective. Relationship dynamics through major relationship transitions including couple formation, cohabitation, marriage, parenthood, death, divorce, and remarriage will be examined. The diversity of family experiences will be emphasized.

CRN	Section	Session/Dates	Days	Location	Time
10678	801	First Half Session	-	-	-

**FCS 371. Research Methods in HHD. 3 Credits.** (3 Lec) F,S,Su, On Demand  
 PREREQUISITE: Math core completed with a grade of C or better and junior standing in major. Prepares Health and Human Development students to become informed consumers of research. Research principles for both quantitative and qualitative research are covered. Readings and other class materials ensure that students will understand how research in HHD enriches human well-being.

CRN	Section	Session/Dates	Days	Location	Time
10665	802	Non-standard term dates 09- MAY-16 29-JUL-16	-	-	-
11465	801	Intercession	-	-	-

**FCS 450. Curric Dev in FCS Education. 3 Credits.** (2 Lec, 1 Lab) S  
 PREREQUISITE: EDU 497. How to plan, develop, teach, supervise, and evaluate programs in family and consumer sciences education. A second focus will be to learn about responsible actions and decision making as leaders in family, community, and work settings through the use of FCCCLA.

CRN	Section	Session/Dates	Days	Location	Time
11154	001	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-

**FCS 454. Professional Issues - Senior Seminar. 4 Credits.** (1 Lec, 3 Lab) S,Su  
 PREREQUISITE: FCS 371 and screening procedures as specified by instructor. Senior capstone course. Establishing a professional identity and transitioning to a career in the field of early childhood education and child services and human development and family science. The lab section of this course will entail the scientific application of family and consumer sciences theory and methods. In consultation with course instructor, students will participate in a lab assignment.

CRN	Section	Session/Dates	Days	Location	Time
11023	001	Full Semester	R	WIL1142	8:45am - 9:50am
11024	002	Full Semester	-	-	-
11025	003	Full Semester	-	-	-

**FCS 461. Principles Wellbeing in Aging. 3 Credits.** (3 Lec) Su  
 PREREQUISITE: Completion of 12-credits of coursework in the online gerontology. This class will explore the theoretical foundations of wellbeing. Students will work to understand and analyze the interconnectedness of the dimensions of wellbeing with older adults, family units and family relationships.

CRN	Section	Session/Dates	Days	Location	Time
11485	801	Second Half Session	-	-	-

**FCS 465R. Family Law & Public Policy. 3 Credits.** (3 Lec) F  
 PREREQUISITE: FCS 263, FCS 371 or equivalent, senior standing or permission of instructor. An in-depth review of current laws and public policies impacting family well-being including marriage, domestic partnership, divorce, child custody, welfare, foster care, ICWA, and adoption. The impact of workplace and health care policies on families is also examined.

CRN	Section	Session/Dates	Days	Location	Time
11466	801	First Half Session	-	-	-

**FCS 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su  
 Maximum 6 cr PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10140	001	Full Semester	-	-	-
10337	002	First Half Session	-	-	-
10341	003	Second Half Session	-	-	-

**FCS 498. Internship. 1-12 Credits.** (1-12 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Consent of instructor. An individualized assignment with a professional agency to provide a guided field experience. All students must receive department permission prior to registration.

CRN	Section	Session/Dates	Days	Location	Time
11051	001	Full Semester	-	-	-

**FCS 572. Professional Practicum. 2-6 Credits.** (2-6 Lab; 9 cr max) F,S  
 Max 9 cr. PREREQUISITE: EDEC 555, HDCO 554, graduate standing and consent of instructor. Practicum experience in the field of human development.

CRN	Section	Session/Dates	Days	Location	Time
11026	001	Intercession	-	-	-

**FCS 575. Prof Paper & Project. 1-4 Credits.** (1 Ind; 6 cr max) F,S,Su  
 Max 6 cr. PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
11027	001	Full Semester	-	-	-

**FCS 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind; 3 cr max) F,S,Su  
 Max 3 cr. PREREQUISITE: Master's standing and approval of committee chair. This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
11028	001	Full Semester	-	-	-

**FCS 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 Max credits unlimited. PREREQUISITE: Master's standing. Directed graduate research/creative activity.

CRN	Section	Session/Dates	Days	Location	Time
10144	001	Full Semester	-	-	-

## FILM - Film & Photography

**FILM 101IH. Understanding Film and Media. 3 Credits.** (1 Lec, 2 Lab) F  
 This course provides students with the tools of film and media analysis as a foundation for future cinema study and practice. Close analysis of films from different countries and time periods will be used to recognize the formal elements of film production, principally style and narrative.

CRN	Section	Session/Dates	Days	Location	Time
11159	001	Second Half Session	R	VCB182	9:00am - 1:00pm
11159	001	Second Half Session	T	VCB182	9:00am - 1:00pm

**FILM 295. Practicum. 1-3 Credits.** (1-3 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Consent of instructor. Max 12 cr. Practical experience associated with production and research project in motion pictures, television/video, photography, and theatre. May include rehearsal or performance activity. Credit will be offered to students doing basic work on faculty members' productions or on student productions under direct faculty supervision. Credit will be offered to students giving basic technical support to: a) faculty teaching courses, b) faculty engaged in creative activities, or c) advanced students' productions (while supervised by an SFP faculty member).

CRN	Section	Session/Dates	Days	Location	Time
10749	001	Full Semester	-	-	-

**FILM 381. Studies in Film. 3 Credits.** (1 Lec; 9 cr max) On Demand  
 PREREQUISITE: Junior standing in Film. An advanced introduction to the theories which enable an understanding of the national cinemas practiced in light of, outside of, the influence of Hollywood. Focus on particular national cinemas varies by semester, but may include examinations of major European cinemas, Asian cinema, and/or the cinemas of the developing world.

CRN	Section	Session/Dates	Days	Location	Time
11037	001	First Half Session	TR	VCB182	6:00pm - 9:00pm

**FILM 395. Practicum. 1-3 Credits.** (1 Ind; 12 cr max) F,S,Su  
 Max 12 cr. PREREQUISITE: Junior Standing in Film and consent of instructor. Practical experience associated with production and research projects in motion pictures, television/video, photography, and theatre. May include rehearsal or performance activity. Credit will be offered to students doing advanced work on faculty members' productions or on student productions under direct faculty supervision.

CRN	Section	Session/Dates	Days	Location	Time
11038	001	Full Semester	-	-	-

**FILM 481. Advanced Studies in Film. 1-12 Credits.** (1-12 Sem; 9 cr max) F,S, On Demand

PREREQUISITE: Any 300 level film studies course or permission of instructor.  
COREQUISITE: Sophomore level. Studies topics offered at the upper division level that are not covered in regular courses. Students participate in preparing and presenting discussion material. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10750	001	Second Half Session	MW	VCB182	12:30pm - 4:05pm

**FILM 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand

1-3 cr. IND. May be repeated, Maximum 6 cr. total for FILM, PHOT & THTR 492 combined. PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis for advanced students.

CRN	Section	Session/Dates	Days	Location	Time
11039	001	Full Semester	-	-	-

**FILM 494. Seminar/Workshop. 1-4 Credits.** (1-4 Sem; 12 cr max) On Demand

PREREQUISITE: Consent of instructor. Advanced topics in film production or film studies. Topics Vary. School of Film and Photography.

CRN	Section	Session/Dates	Days	Location	Time
11040	001	First Half Session	MTWRF	VCB233	1:10pm - 4:00pm
11094	002	First Half Session	MTWRF	VCB154	9:00am - 12:00pm
11095	003	First Half Session	MWF	VCB233	9:00am - 12:00pm

**FILM 498. Career Internship. 2-12 Credits.** (2-12 Ind; 12 cr max for FILM, PHOT, THTR 498 combined) F,S

Su PREREQUISITE: Consent of School Director. An individualized assignment arranged with an outside agency, business, or other organization to provide guided experience in the field. School of Film and Photography.

CRN	Section	Session/Dates	Days	Location	Time
11041	001	Full Semester	-	-	-

**FILM 590. Master's Thesis. 1-15 Credits.** (1-15 Ind; 15 cr max) F,S,Su

1-3 cr. IND Maximum credits unlimited PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10460	001	Full Semester	-	-	-

## FRCH - French

**FRCH 101. Elementary French I. 3 Credits.** (3 Rct)

NOTE: Offered on a rotating basis with German and Spanish in Summer. An elementary level course designed to help students acquire basic proficiency in communicating within culturally significant contexts. An integrated approach to teaching language skills with emphasis on vocabulary acquisition and basic grammatical structures.

CRN	Section	Session/Dates	Days	Location	Time
11494	801	First Half Session	-	-	-

**FRCH 102D. Elementary French II. 3 Credits.** (3 Rct)

PREREQUISITE: FRCH 101 or equivalent, or two years of high school French. Offered on a rotating basis with German and Spanish in Summer This course builds upon the foundation established in 101. Greater emphasis is placed upon oral and written expression. Reading and discussions are designed to increase comprehension of more linguistically complex texts and more conceptually complex cultural issues.

CRN	Section	Session/Dates	Days	Location	Time
11495	801	Second Half Session	-	-	-

## GDSN - Graphic Design

**GDSN 360. Yellowstone Digital. 3 Credits.** (3 Lab) Su

PREREQUISITE: GDSN 224 or ARTZ 211 or MTA 265 or ARCH 261. A field workshop located along the Yellowstone river using either 35mm or a Digital camera to create fine art digital prints. This course is designed for individuals with a working knowledge of photographic basics and a fundamental familiarity with their own equipment that desire to explore the new media of the fine art digital print.

CRN	Section	Session/Dates	Days	Location	Time
10841	001	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-

**GDSN 361. Teton Digital. 3 Credits.** (3 Lec) Su

PREREQUISITE: GDSN 224, ARTZ 211, or MTA 260, or ARCH 261. An intensive field workshop located in the Jackson, Wyoming area and Grand Teton National Park using a Digital camera to create fine art digital prints. This course is designed for individuals with a working knowledge of photographic basics and a fundamental familiarity with their own equipment that desire to explore the new media of the digital print.

CRN	Section	Session/Dates	Days	Location	Time
10842	001	Full Semester	-	-	-

**GDSN 378. Guerrilla Advertising. 5 Credits.** (5 Lab) Su

PREREQUISITE: GDSN 224 or consent of instructor. Photo and marketing majors are highly encouraged. Students stretch the boundaries of traditional advertising solutions by placing their work in unusual contexts for maximum impact. The workshop-like atmosphere involves quick-fire problem solving sessions, working outdoors, guest critiques and socially-driven solutions. Graphic Design, Film & Photography, and Marketing majors are particularly encouraged to apply.

CRN	Section	Session/Dates	Days	Location	Time
10745	001	Non-standard term dates 16- MAY-16 05-AUG-16	MTWR	-	8:00am - 5:00pm

## GEO - Geology

**GEO 429R. Field Geology. 6 Credits.** (6 Lab) Su

PREREQUISITE: EARTH 307, GEO 211, GEO 309, and GEO 315. Must receive a minimum grade of "C" in these courses. A senior capstone course for the geology, geohydrology and paleontology options. Summer field course with application of field procedures and mapping techniques to a variety of field problems and exercises. Extensive hiking and outdoor physical challenges require that students be physically fit. A fee for supplies, transportation, and other logistical expenses is required.

CRN	Section	Session/Dates	Days	Location	Time
11092	001	First Half Session	-	-	-

**GEO 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10135	001	Full Semester	-	-	-
10136	002	First Half Session	-	-	-
10138	003	Second Half Session	-	-	-
10469	010	Full Semester	-	-	-

**GEO 498. Internship. 2-12 Credits.** (2 Ind; 12 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10141	001	Full Semester	-	-	-
10142	002	Second Half Session	-	-	-

**GEO 592. Independent Study. 1-4 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Graduate standing, consent of instructor, approval of Department Head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10707	001	Full Semester	-	-	-

## GPHY - Geography

**GPHY 141D. Geography of World Regions. 3 Credits.** (3 Lec) F,S,Su

Resume of major world regions; their cultures, populations, resources, utilization of land; emphasis on regions outside Anglo-America.

CRN	Section	Session/Dates	Days	Location	Time
10399	001	First Half Session	MTR	REID104	12:30pm - 2:50pm

**GPHY 284. Intro to GIS Science & Cartog. 3 Credits.** (2 Lec, 1 Lab) F,S

Concepts of spatial thinking; understanding spatial relationships and interaction in the natural and built environment. Spatial data principles, data models, relational database concepts, contemporary digital cartography, map design and composition, spatial data conversion, introduction to spatial analysis and synthesis.

CRN	Section	Session/Dates	Days	Location	Time
11127	001	Second Half Session	MTW	TRAP225	8:30am - 10:00am
11127	001	Second Half Session	MW	JONH209	10:30am - 12:30pm

**GPHY 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10133	001	Full Semester	-	-	-
10134	003	Second Half Session	-	-	-
10347	002	First Half Session	-	-	-
10470	010	Full Semester	-	-	-

**GPHY 497. Geography Instruction. 1-2 Credits.** (.5 Lab; 4 cr max) F,S,Su

PREREQUISITE: Junior or senior standing in geography and consent of instructor and Department Head. Student works as a tutor and undergraduate teaching assistant in a teaching laboratory under close academic supervision. Weekly meeting focuses on geography teaching, organization of class materials, and student supervision. Weekly lab emphasizes applying active learning concepts in a geography laboratory context.

CRN	Section	Session/Dates	Days	Location	Time
10132	001	Full Semester	-	-	-

**GPHY 592. Independent Study. 1-4 Credits.** (1-4 Ind; 6 cr max) On Demand

PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10708	001	Full Semester	-	-	-

**GRMN - German****GRMN 101. Elementary German I. 3 Credits.** (3 Rct)

NOTE: Offered on a rotating basis with French and Spanish in Summer. An elementary level course designed to help students acquire basic proficiency in communication within culturally significant contexts. An integrated approach to teaching language skills with emphasis on vocabulary acquisition and basic grammatical structures.

CRN	Section	Session/Dates	Days	Location	Time
11075	001	First Half Session	-	-	-

**GRMN 102D. Elementary German II. 3 Credits.** (3 Rct)

PREREQUISITE: GRMN 101 or equivalent, or two years of high school German. Offered on a rotating basis with French and Spanish in Summer. This course builds upon the foundation established in 101. Greater emphasis is placed upon oral and written expression. Reading and discussions are designed to increase comprehension of more linguistically complex texts and more conceptually complex cultural issues.

CRN	Section	Session/Dates	Days	Location	Time
11076	001	Second Half Session	-	-	-

**HDCO - Human Devel Counseling****HDCO 502. Cnsl Ethic Prof Orient. 2 Credits.** (2 Rct) Su

PREREQUISITE: Graduate standing in counseling program. This course will prepare the student with a strong orientation to professional and ethical issues as they apply to counseling. Contents of the course will examine historical aspects of counseling professions, professional counseling roles, professional organizations, consultation models, professional preparation standards, and credentialing. It will also introduce appropriate ethical codes for conduct and study case studies representing ethical dilemmas a counselor may face in schools, agencies, and private practice.

CRN	Section	Session/Dates	Days	Location	Time
10516	001	Second Half Session	M	WIL1123	1:45pm - 5:30pm

**HDCO 506. School Counsel Programs. 3 Credits.** (3 Lec) Su

PREREQUISITE: Graduate standing in counseling program. Foundations of the school counseling profession including historical and conceptual perspectives of the field, and the knowledge and skills necessary to be a professional school counselor. Particular emphasis will be placed on a thorough understanding of planning, design, implementation, and evaluation of comprehensive school counseling programs.

CRN	Section	Session/Dates	Days	Location	Time
10517	001	Second Half Session	MTW	WIL1125	8:45am - 11:05am

**HDCO 508. Counseling Theories I. 3 Credits.** (3 Lec) Su

PREREQUISITE: Graduate standing in counseling program. Students will learn a wide range of systems theories used in the diagnosis and treatment of individuals, couples, children, and families.

CRN	Section	Session/Dates	Days	Location	Time
10518	001	Second Half Session	W	WIL1138	8:00am - 12:30pm

**HDCO 524. Consultation and Crisis: Theory and Practice. 3 Credits.** (3 Lec) Su

PREREQUISITE: Graduate standing in counseling program. The study of consultation and crisis counseling theories, strategies, and models. Includes specific applications related to collaboration among schools, mental health agencies, and private practitioners.

CRN	Section	Session/Dates	Days	Location	Time
11467	001	Second Half Session	T	WIL1117	1:45pm - 4:45pm

**HDCO 526. Adventure Counseling. 3 Credits.** (3 Lec) On Demand

PREREQUISITE: Graduate standing in counseling program. An introduction to the theory and practice of adventure-based counseling and experiential learning. The course will focus on the goals, concepts, and techniques of adventure work. Students will learn numerous adventure games, problem-solving initiatives, and how to design adventure programs.

CRN	Section	Session/Dates	Days	Location	Time
10519	001	Second Half Session	R	WIL1125	7:30am - 8:50am
10519	001	Second Half Session	R	ROM304	9:00am - 12:20pm

**HDCO 551. Appraisal. 3 Credits.** (2 Lec, 1 Lab) Su

PREREQUISITE: HDCO 571 and graduate standing in counseling program. Topics include test standardization, reliability and validity; developing understanding of appraisal instruments and needs assessment used with individuals and systems; using information derived from selected appraisal instruments.

CRN	Section	Session/Dates	Days	Location	Time
10520	001	Second Half Session	W	HH314	1:00pm - 5:30pm

**HDCO 558. Career Counseling. 2 Credits.** (2 Lec) Su

PREREQUISITE: Graduate standing in counseling program. This course will prepare the student in the area of career guidance and counseling. Emphasis will be placed on the understanding of career development theories, use of occupational informational sources including computer programs, assessment of the individual and various working environments, and the design of career developmental programs from elementary school through retirement. The student will also be introduced to the impact social issues have on work, leisure and families.

CRN	Section	Session/Dates	Days	Location	Time
10521	001	Second Half Session	R	WIL1117	2:00pm - 5:45pm

**HDCO 589. Graduate Consultation. 1-3 Credits.** (3 Ind; 3 cr max) F,S,Su

PREREQUISITE: Graduate standing in counseling program and approval of committee chair. This course may be used only by students who have completed all of their course work (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10359	001	Full Semester	-	-	-

**HDCO 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su

PREREQUISITE: Graduate standing in counseling program and consent of instructor.

CRN	Section	Session/Dates	Days	Location	Time
10147	001	Full Semester	-	-	-

**HDCO 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: HDCO 508, graduate standing in counseling program and permission of instructor. Advanced theoretical foundations and interventions for the practice of family therapy. Includes current research regarding family therapy and treatment. Emphasizes assessment and interventions for families dealing with mental health diagnoses, substance abuse, sexual abuse, violence, divorce/remarriage, and child/adolescent issues.

CRN	Section	Session/Dates	Days	Location	Time
10317	001	Full Semester	-	-	-

**HDCO 598. Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) F,S,Su  
 Max 12 cr. PREREQUISITE: HDCO 571 and graduate standing in counseling program and clinical review. An individualized assignment arranged with an agency, school or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10146	001	Full Semester	T	CLNC000	11:00am - 12:30pm
10835	002	Full Semester	T	CLNC000	1:00pm - 2:30pm

## HIST - History

**HIST 575. Prof Paper & Project. 1-4 Credits.** (1-4 Ind; 6 cr max) F,S,Su  
 Max 6 cr. PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major adviser and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10163	001	Full Semester	-	-	-

**HIST 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S,Su  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their course work (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10165	001	Full Semester	-	-	-

**HIST 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10166	001	Full Semester	-	-	-

**HIST 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department head, and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10162	001	Full Semester	-	-	-

**HIST 598. Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) On Demand  
 PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10164	001	Full Semester	-	-	-

**HIST 689. Doctoral Reading & Research. 1-10 Credits.** (1-10 Ind; 15 cr max) On Demand  
 Max 15 cr. Presentation and discussion of dissertation research and writing. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10555	001	Full Semester	-	-	-

**HIST 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) On Demand  
 May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10556	001	Full Semester	-	-	-

## HONR - Honors College

**HONR 292. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE/CO-REQUISITE: Restricted entrance; HONR 201US and HONR 202IH or HONR 301US. Consent of instructor and approval of Dean. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10274	001	Full Semester	-	-	-
10275	002	First Half Session	-	-	-
10276	003	Second Half Session	-	-	-

**HONR 490R. Undergrad Rsch/Thesis. 1-6 Credits.** (1-6 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Restricted entrance, HONR 201US and HONR 202IH or HONR 301US; Approval of Dean. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10453	001	Full Semester	-	-	-
10454	002	First Half Session	-	-	-
10455	003	Second Half Session	-	-	-

**HONR 492. Independent Study. 1-3 Credits.** (1 Ind; 12 cr max) On Demand  
 Maximum 12 cr. PREREQUISITE: HONR 201US and HONR 202IH or HONR 301US; Junior standing, consent of instructor and approval of Dean. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10277	001	Full Semester	-	-	-
10278	002	First Half Session	-	-	-
10279	003	Second Half Session	-	-	-

## HORT - Horticulture & Landscape Des

**HORT 345. Market Gardening. 3 Credits.** (3 Lec) Su  
 PREREQUISITE: HORT 105. Focus is on the production of quality vegetable, herb and flower products for sale through local, regional or non-traditional marketing avenues. Special attention is made to present and analyze sustainable food crop production systems.

CRN	Section	Session/Dates	Days	Location	Time
10600	001	First Half Session	MWF	HORTFARM	7:30am - 11:05am

**HORT 490R. Undergraduate Research. 1-4 Credits.** (1-4 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Junior or Senior standing and approval of instructor. Undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
11204	001	Full Semester	-	-	-

**HORT 491. Special Topics. 1-4 Credits.** (1 Ind; 12 cr max) On Demand  
 PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand.

CRN	Section	Session/Dates	Days	Location	Time
11174	001	First Half Session	UMTWRFS		8:00am - 5:00pm

**HORT 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11205	001	Full Semester	-	-	-

**HORT 498. Internship. 2-12 Credits.** (2-12 Lec; 12 cr max) F,S,Su  
 PREREQUISITE: Junior standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
11206	001	Full Semester	-	-	-

## HSTA - History-American

### HSTA 102IH. American History II. 4 Credits. (3 Lec) F,S

An examination of the United States after the Civil War through the 20th Century.

CRN	Section	Session/Dates	Days	Location	Time
10480	001	First Half Session	-	-	-
11474	801	First Half Session	-	-	-

### HSTA 322. Am History: WWII to Present. 3 Credits. (3 Lec)

PREREQUISITE: HSTA 102. Political, cultural, and economic history of the U.S. since the end of World War II.

CRN	Section	Session/Dates	Days	Location	Time
11475	801	First Half Session	-	-	-

### HSTA 468. History of Yellowstone. 3 Credits. (3 Lec)

PREREQUISITE: HSTA 101 or HSTA 102. Historical analysis of changing perceptions of nature on development of Yellowstone and of the Park's place in the context of a modernizing American nation.

CRN	Section	Session/Dates	Days	Location	Time
11169	801	Second Half Session	-	-	-

### HSTA 490R. Undergraduate Research. 1-6 Credits. (1 Ind; 12 cr max) F,S,Su

PREREQUISITE: Consent of instructor and approval of department head. Course will address responsible conduct of research. Directed research on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10443	001	Full Semester	-	-	-

### HSTA 492. Independent Study. 1-4 Credits. (1-4 Ind; 6 cr max) On Demand

PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10159	003	Second Half Session	-	-	-
10545	004	Intercession	-	-	-

### HSTA 498. Internship. 2-12 Credits. (2-12 Ind; 12 cr max) On Demand

PREREQUISITE: Consent of instructor, consent of internship supervisor, and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10160	001	Full Semester	-	-	-

## HSTR - History-World

### HSTR 101IH. Western Civilization I. 4 Credits. (3 Lec) F,S,Su

Survey of the ancient Near East, Greece, Rome, and the European world through 1600. Emphasis on social, economic, and cultural history.

CRN	Section	Session/Dates	Days	Location	Time
10442	001	First Half Session	-	-	-

### HSTR 205CS. The World Environment. 3 Credits. (3 Lec)

-- Examines the history, science, and ethics of risk, focusing on the complex relationship of science, technology, and risk in modern age. Includes exploration of knowledge production in science and technology; case studies such as industrial health and safety, the atomic age, "natural" disasters, and global warming to understand how risk has been defined, perceived, and remedied; and team research projects on such topics as automobile safety, earthquakes, and maquiladores.

CRN	Section	Session/Dates	Days	Location	Time
11254	001	First Half Session	-	-	-
11476	801	First Half Session	-	-	-

### HSTR 436. Armed Conflict Mod Lat Am. 3 Credits. (3 Lec) Su

PREREQUISITE: HSTR 130 or HSTR 102 and junior standing or consent of instructor. Considers the roots and outcomes of different armed conflicts in modern Latin America, including foreign intervention, revolutionary conflict, state violence, and extralegal violence.

CRN	Section	Session/Dates	Days	Location	Time
11286	801	First Half Session	-	-	-

**HSTR 468. The Making of Modern Turkey. 3 Credits. (3 Lec) S**, alternate years. PREREQUISITE: Lower division HSTR (non-US history) course or junior standing or consent of the instructor. This course focuses upon the major political, cultural, social, and economic developments taking place in the history of Turkey from its establishment in 1923 up to the present day. Of particular importance to this course is the question of what the study of Turkey's modern history can teach us about the modern era more generally.

CRN	Section	Session/Dates	Days	Location	Time
11255	001	Second Half Session	-	-	-

### HSTR 492. Independent Study. 1-4 Credits. (1-4 Ind; 6 cr max) On Demand

PREREQUISITE: Consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10157	001	Full Semester	-	-	-
10158	002	First Half Session	-	-	-

### HSTR 498. Internship. 1-12 Credits. (1-12 Ind; 12 cr max) On Demand

PREREQUISITE: Consent of instructor, and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10161	002	Second Half Session	-	-	-

## HTH - Health

### HTH 220. Human Sexuality. 3 Credits. (3 Lec) F,S Su On Demand

A study of all aspects of human sexuality including the sexual reproductive systems, sexual behaviors, contraception, gender roles, sexual functioning, and sexually transmitted diseases.

CRN	Section	Session/Dates	Days	Location	Time
10679	801	First Half Session	-	-	-

### HTH 455. The Ethic of Care. 3 Credits. (3 Lec) F,S,Su On Demand

PREREQUISITE: FCS 101, PSYX 100 or SOCI 101 and junior standing. This course, intended for students interested in working in human service professions (education, health, social work, counseling, human relations and resources) will focus on understanding and applying the theory of the ethic of care in real world situations. Theoretical support for the ethic of care found in diverse areas of philosophy, social justice, education, feminism, parenting, nursing, theology, and medicine will be explored. Utilizing a service learning approach, students will be engaged in understanding theories related to the ethic of care through both in-class lecture and discussion and outreach in the community.

CRN	Section	Session/Dates	Days	Location	Time
10662	001	Non-standard term dates 16- MAY-16 27-MAY-16	F	HH117	7:30am - 11:05am
10662	001	Non-standard term dates 16- MAY-16 27-MAY-16	MTWR	HH117	7:30am - 12:20pm

## ICS - Intercultural Studies

### ICS 404. Intercultural Experience. 1-3 Credits. (1-3 Lec; 3 cr max) On Demand

Students must spend a minimum of three weeks in a non-US cultural setting, and must be accompanied by one or more MSU faculty members. Number of credits to be awarded will be determined by the Director of International Programs.

CRN	Section	Session/Dates	Days	Location	Time
11384	001	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-
11385	002	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-
11386	003	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-
11387	004	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-

**ICS 491. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand  
Maximum 12 cr. PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11388	001	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-

## IMID - Immunology Infectious Diseases

**IMID 475R. Preveterinary Internship. 2-4 Credits.** (2-4 Ind; 4 cr max) F,S,Su  
PREREQUISITE: Junior standing and consent of instructor. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
11122	001	Full Semester	-	-	-

**IMID 498R. Biotech Internship. 4 Credits.** (4 Ind)

ON DEMAND PREREQUISITE: Junior standing, consent of instructor, and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10791	001	Full Semester	-	-	-

**IMID 575. Professional Paper. 1-4 Credits.** (1-4 Ind; 6 cr max) On Demand  
IND Maximum 6 cr. PREREQUISITE: Graduate Standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student, the major advisor, and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10916	001	Full Semester	-	-	-

**IMID 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10837	001	Full Semester	-	-	-

**IMID 690. Doctoral Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su  
PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10838	001	Full Semester	-	-	-

## KIN - Kinesiology

**KIN 221. Hlth Anatomy & Physiology. 3 Credits.** (3 Lec) F,Su On Demand  
This course will focus on the key elements of anatomy and physiology necessary for students in allied health professions, specifically those who will work the areas of community health, health enhancement education, health promotion, and kinesiology. The aim of this course is for students to demonstrate working knowledge of the muscular, skeletal, nervous, cardiovascular, and respiratory, endocrine, and digestive systems, as well as body metabolism.

CRN	Section	Session/Dates	Days	Location	Time
11022	801	Intersession	-	-	-

**KIN 491. Special Topics. 3 Credits.** (1-4 Lec; 12 cr max) On Demand  
Max 12 cr. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11278	003	First Half Session	-	-	-
11279	002	First Half Session	-	-	-
11486	001	Non-standard term dates 09-MAY-16 27-MAY-16	MTWR	ROM105	8:00am - 12:00pm

**KIN 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
Max 6 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10149	001	Full Semester	-	-	-
10150	002	First Half Session	-	-	-
10151	003	Second Half Session	-	-	-
11150	004	First Half Session	-	-	-
11151	005	First Half Session	-	-	-

**KIN 498. Internship. 1-12 Credits.** (1-12 Ind; 12 cr max) F,S,Su  
Max 12 cr. PREREQUISITE: Consent of instructor. An individualized assignment with a professional agency to provide a guided field experience.

CRN	Section	Session/Dates	Days	Location	Time
10854	001	Full Semester	-	-	-
10855	002	Full Semester	-	-	-

**KIN 575. Professional Paper and Project. 1-6 Credits.** (1 Ind; 6 cr max) F,S,Su  
PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major adviser and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10153	001	Full Semester	-	-	-

**KIN 589. Graduate Consultation. 1-3 Credits.** (1 Ind; 3 cr max) F,S,Su  
PREREQUISITE: Master's standing and approval of committee chair. This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10155	001	Full Semester	-	-	-

**KIN 590. Master's Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su  
PREREQUISITE: Master's standing. Directed graduate research/creative activity. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10156	001	Full Semester	-	-	-
10360	002	Full Semester	-	-	-

**KIN 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10152	001	Full Semester	-	-	-

**KIN 598. Internship. 2-12 Credits.** (2 Ind; 12 cr max) On Demand  
Max credits unlimited PREREQUISITE: Graduate standing, and consent of instructor. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10154	001	Full Semester	-	-	-

## LAC - Licensed Addiction Counselor

**LAC 505. Cross Cultural & Ethical Considerations in Addictions Counseling. 3 Credits.** (3 Lec) Su

PREREQUISITE: Admittance to program. This course is designed to examine cultural and ethical constructs related to addictions counseling. The focus will be on current literature, theories, approaches, strategies, and techniques shown to be effective when working with populations of clients with addictions.

CRN	Section	Session/Dates	Days	Location	Time
11493	801	Second Half Session	-	-	-

**LAC 508. Counseling Theories in Addiction Settings. 3 Credits.** (3 Lec) Su  
PREREQUISITES: Admittance to the program. This course examines multiple counseling theories and their application in the addictions setting. Development across the lifespan and theoretical approaches specific to addiction will also be examined.

CRN	Section	Session/Dates	Days	Location	Time
11520	801	Intersession	-	-	-

## LIT - Literature

**LIT 110IH. Introduction to Literature: Explorations in Literature. 3 Credits.** (3 Rct) F,S

Introduction to basic concepts including but not limited to: plot, character, theme, symbol, and the primary literary modes of poetry, fiction, and drama. Students will be introduced to terms through a standard handbook which should accommodate all future English courses.

CRN	Section	Session/Dates	Days	Location	Time
11253	001	First Half Session	-	-	-

**LIT 214D. Regional Literature. 3 Credits.** (3 Rct) F,S

Examination of American literary regions in the context of critical multiculturalism. Analyzes topics such as the development of local color writing, borderlands/transnational studies, and the concept of the frontier as contact zone. May focus on a specific regional literature or adopt a comparative approach.

CRN	Section	Session/Dates	Days	Location	Time
11123	001	Second Half Session	MTR	WIL1115	12:30pm - 2:50pm

**LIT 285D. Mythologies. 3 Credits.** (3 Rct) F,S

The study of specific cultural mythologies to explore the nature, function, and theory of myth.

CRN	Section	Session/Dates	Days	Location	Time
10599	001	First Half Session	-	-	-

**LIT 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max)

-- Independent study of literature.

CRN	Section	Session/Dates	Days	Location	Time
11124	001	Full Semester	-	-	-
11125	002	First Half Session	-	-	-
11126	003	Second Half Session	-	-	-

## LRES - Land Resources & Env Sci

**LRES 562. Land Rehab Field Problem. 2 Credits.** (2 Lab) Su alternate years, to be offered odd years.

PREREQUISITE: ENSC 460, ENSC 461. Extended field trip to numerous drastically disturbed sites across the Northern Plains. On-site review of land rehabilitation problems, solutions, and methodologies. Participation by industry, regulatory agency staff, and rehabilitation professionals will occur at most sites.

CRN	Section	Session/Dates	Days	Location	Time
11463	001	Non-standard term dates 09-MAY-16 20-MAY-16	-	-	-

**LRES 575. Prof Paper & Project. 1-4 Credits.** (1-4 Lec) On Demand

1-4 IND Maximum 6 cr. PREREQUISITE: Graduate standing A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student, the major advisor, and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10176	001	Full Semester	-	-	-

**LRES 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S,Su

3 cr. TUT PREREQUISITE: Master's standing, consent of instructor and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their coursework (and thesis, if on a thesis plan), but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10177	001	Full Semester	-	-	-

**LRES 590. Master's Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su

1 - 10 cr. IND Maximum credits unlimited. PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10178	001	Full Semester	-	-	-

**LRES 591. Special Topics. 1-4 Credits.** (1 Rct; 12 cr max) On Demand

1 - 4 cr. Maximum 12 cr. PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11516	801	Non-standard term dates 06-JUN-16 07-AUG-16	-	-	-

**LRES 690. Doctoral Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su

1 - 10 cr. IND Maximum credits unlimited. PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10179	001	Full Semester	-	-	-

## M - Mathematics

**M 096. Survey of Algebra. 4 Credits.** (4 Lec) F,S,Su

Offered by Gallatin College. PREREQUISITE: M 065 or M 085 or Math Placement Test within the past 12 months. This instructor-taught course initiates development in students' ability to organize thought processes and systematically solve problems while preparing students for studies in other courses. Topics include linear equations and inequalities and their graphs, systems of linear equations, exponents, polynomials, factoring, rational expressions, and square roots. This course is equivalent to M 097.

CRN	Section	Session/Dates	Days	Location	Time
10488	001	First Half Session	MTWR	HAM228	8:45am - 9:50am
10488	001	First Half Session	MTWR	HAM228	10:00am - 11:05am
11073	002	Second Half Session	MTWR	HAM228	8:45am - 9:50am
11073	002	Second Half Session	MTWR	HAM228	10:00am - 11:05am
11074	003	First Half Session	-	-	-

**M 121Q. College Algebra. 3 Credits.** (3 Lec) F,S,Su

PREREQUISITE: M 096, M 097 or Math Placement Test within the past 12 months. Further development of algebraic skills through the study of linear, quadratic, polynomial, exponential, and logarithmic functions.

CRN	Section	Session/Dates	Days	Location	Time
10677	001	First Half Session	MTR	WIL1124	7:30am - 8:35am
10677	001	First Half Session	MTR	WIL1124	8:45am - 9:50am
10862	003	Second Half Session	MTR	WIL1126	7:30am - 8:35am
10862	003	Second Half Session	MTR	WIL1126	8:45am - 9:50am
11172	002	First Half Session	-	-	-

**M 145Q. Math for the Liberal Arts. 3 Credits.** (3 Lec) F,S,Su

PREREQUISITE: M 088, M 096, M 097 or Math Placement Test within the past 12 months. Basic skills in applicable mathematics including linear, quadratic and exponential models; financial mathematics, trigonometry and some elementary statistics.

CRN	Section	Session/Dates	Days	Location	Time
10371	002	Second Half Session	MTR	WIL1117	10:00am - 11:05am
10371	002	Second Half Session	MTR	WIL1117	11:15am - 12:20pm
10378	001	First Half Session	MTR	WIL1121	10:00am - 11:05am
10378	001	First Half Session	MTR	WIL1121	11:15am - 12:20pm

**M 151Q. Precalculus. 4 Credits.** (4 Lec) F,S,Su

PREREQUISITE: M 121Q or Math Placement Test within the past 12 months. Functions, graphs, and the use symbols for expressing mathematical thoughts. Polynomials, rational, exponential, logarithmic, and trigonometric functions.

CRN	Section	Session/Dates	Days	Location	Time
10380	001	First Half Session	MTWR	WIL1148	10:00am - 11:05am
10380	001	First Half Session	MTWR	WIL1148	11:15am - 12:20pm
10381	002	Second Half Session	MTWR	WIL1124	10:00am - 11:05am
10381	002	Second Half Session	MTWR	WIL1124	11:15am - 12:20pm



**M 161Q. Survey of Calculus. 4 Credits.** (4 Lec) F,S,Su

PREREQUISITE: M 121Q or Math Placement Test within the past 12 months. A survey of basic calculus including limits, differentiation, and integration with applications to business, biology, and social science problems.

CRN	Section	Session/Dates	Days	Location	Time
10382	001	First Half Session	MTWR	WIL1143	7:30am - 8:35am
10382	001	First Half Session	MTWR	WIL1143	8:45am - 9:50am
10383	002	Second Half Session	MTWR	WIL1117	7:30am - 8:35am
10383	002	Second Half Session	MTWR	WIL1117	8:45am - 9:50am

**M 171Q. Calculus I. 4 Credits.** (4 Lec) F,S,Su

PREREQUISITE: M 151Q or Math Placement Test within the past 12 months. Functions, elementary transcendental functions, limits and continuity, differentiation, applications of the derivative, curve sketching, and integration theory.

CRN	Section	Session/Dates	Days	Location	Time
10384	001	First Half Session	MTWR	WIL1134	7:30am - 8:35am
10384	001	First Half Session	MTWR	WIL1134	8:45am - 9:50am
10385	002	First Half Session	MTWR	WIL1131	7:30am - 8:35am
10385	002	First Half Session	MTWR	WIL1131	8:45am - 9:50am
10826	003	Second Half Session	MTWR	WIL1130	7:30am - 8:35am
10826	003	Second Half Session	MTWR	WIL1130	8:45am - 9:50am

**M 172Q. Calculus II. 4 Credits.** (4 Lec) F,S,Su

PREREQUISITE: M 171Q. Methods of integration, applications of the integral, Taylor's theorem, infinite sequences and series, polar coordinates.

CRN	Section	Session/Dates	Days	Location	Time
10386	001	First Half Session	MTWR	WIL1142	10:00am - 11:05am
10386	001	First Half Session	MTWR	WIL1142	11:15am - 12:20pm
10387	002	First Half Session	MTWR	WIL1124	10:00am - 11:05am
10387	002	First Half Session	MTWR	WIL1124	11:15am - 12:20pm
10827	003	Second Half Session	MTWR	WIL1130	10:00am - 11:05am
10827	003	Second Half Session	MTWR	WIL1130	11:15am - 12:20pm

**M 221. Introduction to Linear Algebra. 3 Credits.** (3 Lec) F,S,Su

PREREQUISITE: M 166Q or M 172Q. Matrix algebra, systems of linear equations, determinants, vector algebra and geometry in Euclidean 3-space, eigenvalues, eigenvectors.

CRN	Section	Session/Dates	Days	Location	Time
10183	001	First Half Session	MTR	WIL1128	10:00am - 11:05am
10183	001	First Half Session	MTR	WIL1128	11:15am - 12:20pm

**M 273Q. Multivariable Calculus. 4 Credits.** (4 Lec) F,S,Su

PREREQUISITE: M 172Q. Topics in two and three dimensional geometry. Manipulation and application of vectors. Functions of several variables, contour maps, graphs, partial derivatives, gradients, double and triple integration, vector fields, line integrals, surface integrals, Green's Theorem, Stokes' Theorem, the Divergence Theorem.

CRN	Section	Session/Dates	Days	Location	Time
10388	001	First Half Session	MTWR	WIL1121	7:30am - 8:35am
10388	001	First Half Session	MTWR	WIL1121	8:45am - 9:50am
10477	002	Second Half Session	MTWR	WIL1131	7:30am - 8:35am
10477	002	Second Half Session	MTWR	WIL1131	8:45am - 9:50am

**M 274. Introduction to Differential Equation. 4 Credits.** (4 Lec) F,S,Su

PREREQUISITE: M 172Q. An introduction to qualitative, quantitative, and numerical methods for ordinary differential equations. Topics include modeling via differential equations, linear and nonlinear first order differential equations and systems, elementary phase plane analysis, forced oscillations, and Laplace transform techniques.

CRN	Section	Session/Dates	Days	Location	Time
10184	001	First Half Session	MTWR	WIL1116	10:00am - 11:05am
10184	001	First Half Session	MTWR	WIL1116	11:15am - 12:20pm
10185	002	Second Half Session	MTWR	WIL1142	10:00am - 11:05am
10185	002	Second Half Session	MTWR	WIL1142	11:15am - 12:20pm

**M 290R. Undergraduate Research. 1-8 Credits.** (1-8 Ind; 8 cr max) F,S,Su

PREREQUISITE: Consent of the department head. Directed undergraduate research. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10389	001	Full Semester	-	-	-

**M 424. Algebraic Thinking and Number Sense in the Middle Grades. 3 Credits.** (3 Lec) F

to be offered odd years. PREREQUISITE: M 234 or M 242, and corequisite EDU 382. Develop algebraic knowledge necessary to teach standards-based middle school mathematics. Investigate the underlying conceptual structure of topics in algebra and number appropriate to middle school. Explore the use of manipulative materials and technologies, and discuss related pedagogical issues and national standards.

CRN	Section	Session/Dates	Days	Location	Time
11487	001	Non-standard term dates 20- JUN-16 08-JUL-16	MTWRF	WIL	8:00am - 9:15am
11487	001	Non-standard term dates 20- JUN-16 08-JUL-16	MTWRF	WIL	2:30pm - 3:45pm

**M 490R. Undergraduate Research. 1-6 Credits.** (1-6 Ind; 12 cr max) F,S,Su

PREREQUISITE: Junior standing in mathematics and consent of department head. Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10390	001	Full Semester	-	-	-

**M 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10652	001	Full Semester	-	-	-

**M 498. Internship. 2-12 Credits.** (2-12 Ind; 12 max) F,S,Su

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10186	001	Full Semester	-	-	-

**M 517. Advanced Mathematical Modeling for Teachers. 3 Credits.** (3 Lec) Su

for two consecutive years; alternates with M 526 PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Focus on the use of modeling to solve real-world problems. Topics include the modeling process, an overview of relevant technology, strategies to engage students in modeling in the secondary classroom, and classroom assessment of modeling activities. Extensive use of mathematics to explore application areas, leading to the construction of original models.

CRN	Section	Session/Dates	Days	Location	Time
11080	001	Non-standard term dates 16- MAY-16 05-AUG-16	-	-	-

**M 518. Statistics For Teachers. 3 Credits.** (3 Lec) Su

Distance format PREREQUISITE: Graduate standing in mathematics or science education, teaching endorsement in mathematics or science, or consent of instructor. Stochastic concepts including probabilistic underpinnings of statistics, measures of central tendency, variability, correlation, distributions, sampling, and simulation. Exploratory data analysis including experiments, surveys, measures of association and inferential statistics. Discussion of methods for teaching statistics in secondary mathematics and science.

CRN	Section	Session/Dates	Days	Location	Time
10354	801	Non-standard term dates JUN-16 29-JUL-16	13- -	-	-

**M 520. Standards-Based Math for Teachers. 3 Credits.** (3 Lec) Su, to be offered odd years.

Distance format. PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Study of key content themes and connections in algebra, geometry, probability/data analysis, number, and measurement with a focus on mathematical practices. Exploring, extending, designing, and teaching standards-based classroom activities for middle/high school students and reflecting on student outcomes.

CRN	Section	Session/Dates	Days	Location	Time
11121	001	Non-standard term dates MAY-16 05-AUG-16	16- -	-	-

**M 523. Number Structure for Teachers. 3 Credits.** (3 Lec) Su, to be offered even years.

Distance format. PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Develop the relationship and distinction between the mathematics that underlies the structure of number and the learning and teaching of number structure in schools. Explore representation, abstraction, and basic proof in the context of number and operations. Develop foundations of the real number system and examine relevant research about students' understanding of number.

CRN	Section	Session/Dates	Days	Location	Time
11488	001	Non-standard term dates JUN-16 29-JUL-16	13- -	-	-

**M 524. Linear Algebra for Teachers. 3 Credits.** (3 Lec) Su

Distance format. PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Algebraic systems, special matrices, determinants, vector spaces, and linear programming. Includes applications relevant to industry and business and connections to topics in secondary mathematics.

CRN	Section	Session/Dates	Days	Location	Time
10828	001	Non-standard term dates MAY-16 05-AUG-16	16- -	-	-

**M 526. Discrete Mathematics for Teachers. 3 Credits.** (3 Lec) Su

for two consecutive years; alternates with M 517 PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. A study of classical topics in discrete mathematics, chosen from combinatorics, probability, graph theory, and other areas relevant to secondary mathematics. Emphasis on problem solving and justification.

CRN	Section	Session/Dates	Days	Location	Time
11489	001	Non-standard term dates JUN-16 08-JUL-16	20- -	MTWRF WIL1133	9:50am - 10:45am
11489	001	Non-standard term dates JUN-16 08-JUL-16	20- -	MTWRF WIL1133	4:00pm - 5:20pm

**M 570. Individual Problems. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su

PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10187	001	Full Semester	-	-	-

**M 575. Professional Paper and Project. 1-4 Credits.** (1-4 Ind; 6 cr max) F,S,Su

PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10344	001	Full Semester	-	-	-

**M 576. Internship. 2-12 Credits.** (2-12 Ind; unlimited max) F,S,Su

PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10343	001	Full Semester	-	-	-

**M 588. Professional Development. 1-3 Credits.** (1-3 Lec; 3 cr max) On Demand

PREREQUISITE: Graduate standing, teaching experience and/or current employment in a school organization, consent of instructor and Dean of Graduate Studies. Courses offered on a one time basis to fulfill professional development needs of in-service educators. A specific focus is given to each course which is appropriately subtitled. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
11398	001	Non-standard term dates AUG-16 12-AUG-16	08- -	MTWRF WIL1119	8:00am - 5:00pm

**M 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S,Su

PREREQUISITE: Master's standing. This course may be used only by students who have completed all of their course work (and thesis, if on a thesis plan) but who need additional faculty or staff time.

CRN	Section	Session/Dates	Days	Location	Time
10188	001	Full Semester	-	-	-

**M 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max cr unlimited) F,S,Su

PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10189	001	Full Semester	-	-	-

**M 689. Doctoral Reading & Research. 3-5 Credits.** (3-5 Ind; 15 cr max) F,S,Su

PREREQUISITE: Doctoral standing. This course may be used by doctoral students who are reading research publications in the field in preparation for doctoral thesis research.

CRN	Section	Session/Dates	Days	Location	Time
10190	001	Full Semester	-	-	-

**M 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su

PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10191	001	Full Semester	-	-	-

**MART - Media Arts****MART 145RA. Web Design. 3 Credits.** (2 Lec, 1 Lab) F,S

Basic design principles and how these principles apply to web site construction. HTML and HTML editors. Laboratory projects reflect practical usage of course concepts. Cross-listed with CS 145.

CRN	Section	Session/Dates	Days	Location	Time
10755	001	Second Half Session	-	-	-
10756	002	Second Half Session	TR	EPS254	1:00pm - 3:00pm
10757	003	Second Half Session	-	-	-

**MAS - Military Aerospace Studies****MAS 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand

Max 6 cr. PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10180	001	Full Semester	-	-	-
10181	002	First Half Session	-	-	-
10182	003	Second Half Session	-	-	-

## MB - Microbiology

### MB 540. Environmental Microbiology. 3 Credits. (3 Ind) F

PREREQUISITE: MB 536 and MB 541 or equivalent course. COREQUISITE: BS in biology or equivalent; Graduate standing or petition approval from the Vice Provost of Graduate Education. Biotechnology, industrial microbiology, antimicrobial chemotherapy, public health, epidemiology, climate change, food water, wastewater, extreme environments, space travel, biodegradation, bioremediation and bioaugmentation. Ideal for middle/high school/college teachers, and others in education/outreach, e.g., museums, zoos, National Parks, nature preserves, environmental health.

CRN	Section	Session/Dates	Days	Location	Time
11518	801	Non-standard term dates JUN-16 29-JUL-16	-	-	-

### MB 575. Professional Paper. 1-4 Credits. (1-4 Ind; 6 cr max)

PREREQUISITE: Graduate standing and committee approval. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major adviser and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
11071	001	Full Semester	-	-	-

### MB 589. Graduate Consultation. 3 Credits. (3 Ind) F,S,Su

PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their coursework (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10194	001	Full Semester	-	-	-

### MB 590. Master's Thesis. 1-10 Credits. (3 Ind; 20 cr max) F,S,Su

PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10195	001	Full Semester	-	-	-

### MB 592. Independent Study. 1-3 Credits. (1 Ind; 6 cr max) On Demand

PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10192	001	Full Semester	-	-	-

### MB 598. Internship. 2-12 Credits. (2 Ind; max unlimited)

PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10193	001	Full Semester	-	-	-

### MB 690. Doctoral Thesis. 1-10 Credits. (3 Ind; 30 cr max) F,S,Su

PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10196	001	Full Semester	-	-	-

## MBEH - Microbiology Environmental Hlt

### MBEH 475. Field Project. 1-4 Credits. (1 Ind; 4 cr max) F,S,Su

Max 4 cr. PREREQUISITE: Consent of instructor and department head. Research and field experience in some aspect of environmental health science.

CRN	Section	Session/Dates	Days	Location	Time
10200	001	Full Semester	-	-	-

### MBEH 490R. Undergraduate Research. 1-6 Credits. (1 Ind; 12 cr max) F,S,Su

Max 12 cr. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10447	001	Full Semester	-	-	-

MBEH 492. Independent Study. 1-3 Credits. (1 Ind; 6 cr max) On Demand  
Max 6 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10197	001	Full Semester	-	-	-
10198	002	First Half Session	-	-	-
10199	003	Second Half Session	-	-	-

### MBEH 498. Internship. 2-12 Credits. (2 Ind; 12 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. An individual assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10201	001	Full Semester	-	-	-

## MBSP - Molecular Biosciences Program

### MBSP 561. Molec Biosci Lab Rotation I. 1 Credit. (1 Lab; 1 cr max) F,S

Each Molecular Biosciences Program graduate student will complete three laboratory rotations during their first year of graduate study. Each Laboratory Rotation provides students with a six-week period of active research experimentation time. Each Laboratory Rotation is a mini-research project and is designed to allow the student to explore a potential avenue of research for their thesis/dissertation research project in Years 2 and beyond. Students should become familiar with the relevant literature, concepts, methods, reagents, and instruments that will be needed to conduct their experiments and achieve the goals of their research projects. Extensive bench research time will be required to obtain meaningful results.

CRN	Section	Session/Dates	Days	Location	Time
10798	001	Full Semester	MWF	-	-

### MBSP 562. Molec Biosci Lab Rotation II. 1 Credit. (1 Lab; 1 cr max) F,S

Each Molecular Biosciences Program graduate student will complete three laboratory rotations during their first year of graduate study. Each Laboratory Rotation provides students with a six-week period of active research experimentation time. Each Laboratory Rotation is a mini-research project and is designed to allow the student to explore a potential avenue of research for their thesis/dissertation research project in Years 2 and beyond. Students should become familiar with the relevant literature, concepts, methods, reagents, and instruments that will be needed to conduct their experiments and achieve the goals of their research project. Extensive bench research time will be required to obtain meaningful results.

CRN	Section	Session/Dates	Days	Location	Time
10797	001	Full Semester	MWF	-	-

### MBSP 563. Molec Biosci Lab Rotation III. 1 Credit. (1 Lab; 1 cr max) F,S

Each Molecular Biosciences Program graduate student will complete three laboratory rotations during their first year of graduate study. Each Laboratory Rotation is a mini-research project and is designed to allow the student to explore a potential avenue of research for their thesis/dissertation research project in Years 2 and beyond. Students should become familiar with the relevant literature, concepts, methods, reagents, and instruments that will be needed to conduct their experiments and achieve the goals of their research project. Extensive bench research time will be required to obtain meaningful results.

CRN	Section	Session/Dates	Days	Location	Time
10796	001	Full Semester	MWF	-	-

### MBSP 564. Molec Biosci Lab Rotation IV. 1 Credit. (1 Lab; 1 cr max) F,S

Each Molecular Biosciences Program graduate student will complete three laboratory rotations during their first year of graduate study. Each Laboratory Rotation is a mini-research project and is designed to allow the student to explore a potential avenue of research for their thesis/dissertation research project in Years 2 and beyond. Students should become familiar with the relevant literature, concepts, methods, reagents, and instruments that will be needed to conduct their experiments and achieve the goals of their research project. Extensive bench research time will be required to obtain meaningful results.

CRN	Section	Session/Dates	Days	Location	Time
10795	001	Full Semester	MWF	-	-

### MBSP 575. Mol BioSci Prgm Rsch Project. 1 Credit. (1 Lab) F,S

1 cr. LAB 1 This course will fulfill the research requirement of the first year Molecular Biosciences Program (MBSP) doctoral fellows. The fellow (students) will work on a research project under the direction of their advisor.

CRN	Section	Session/Dates	Days	Location	Time
10794	001	Full Semester	MWF	-	-

**MBSP 594. Molecular Biosc Prgrm Sem. 1 Credit.** (1 Sem) F,S  
 This course will fulfill the seminar requirement of the first year Molecular Biosciences Program (MBSP) doctoral fellows. The fellows (students) will attend three seminars sponsored by the MBSP focused on molecular biosciences research. Students will also attend twelve additional departmental or research center-based seminars from the participating MBSP centers and departments. Each student will write a summary of the fifteen attended seminars and turn it into the instructor by the last day.

CRN	Section	Session/Dates	Days	Location	Time
10792	001	Full Semester	MWF	-	-

**MBSP 613. Scientific Proposal Writing. 3 Credits.** (3 Lec) Su  
 PREREQUISITE: Students need to be in their second year of a STEM discipline. Research scientists and engineers in today's highly competitive world need to develop and acquire research proposal writing skills and knowledge as part of their training for a successful career. The goal of this course is to provide doctoral students with strategies, practical skills and experience in seeking funding for their research as well as writing and evaluating scientific proposals. The student will leave this course with a research proposal that is ready to submit for funding.

CRN	Section	Session/Dates	Days	Location	Time
10793	001	Full Semester	MWF	-	-

## MEDS - Medical Science

**MEDS 500. Seminar. 1 Credit.** (1 Sem; 4 cr max) On Demand  
 Max 4 cr. PREREQUISITE: WWAMI medical student or consent of the WWAMI Medical Program and Dean of The Graduate School. Yearly conference dealing with topics related to Montana's colorful medical history.

CRN	Section	Session/Dates	Days	Location	Time
10211	001	Full Semester	W	-	1:10pm - 2:00pm

**MEDS 502. Introductory Primary & Continuity Care. 3 Credits.** (1 Lec, 2 Rec) F,S,Su  
 PREREQUISITE: WWAMI Medical Student. This course introduces medical students to continuity of care by working with practicing physicians. This course is new as of Fall 2015 and is not equivalent to MEDS 502, Spanish for Health Professionals, offered prior to Fall 2015.

CRN	Section	Session/Dates	Days	Location	Time
11401	001	First Half Session	MTWRF	LEWH306	3:00pm - 3:50pm

**MEDS 503. Clinical Reasoning. 3 Credits.** (1 Lec, 2 Lab) F,S,Su  
 PREREQUISITE: WWAMI Medical Student. This course will involve instruction and communication skills, interview techniques, physical examination skills and clinical reasoning. This course is new as of Fall 2015 and is not equivalent to MEDS 503, Poetics of Healing, offered prior to Fall 2015. WWAMI.

CRN	Section	Session/Dates	Days	Location	Time
11403	001	First Half Session	MTWRF	LEWH306	4:00pm - 4:50pm

**MEDS 541. Clinical Practicum. 1 Credit.** (1 Lab) F,S,Su  
 PREREQUISITE: Graduate level standing and acceptance into Post-Bacc Pre-Med or M.S. Health Sciences program. A practical course for students going into the medical field to observe and learn about the services provided by different health care professionals at various stages of patient care. Prior to Summer 2015, MEDS 541 was MEDS 540.

CRN	Section	Session/Dates	Days	Location	Time
11269	001	Full Semester	-	-	-

**MEDS 550. Energetics & Homeostasis. 8 Credits.** (4 Lec, 1 Lab, 3 Rct) Su  
 PREREQUISITE: WWAMI Medical Student This course will involve integrated content in metabolism, nutrition, obesity, diabetes, gastrointestinal/liver physiology, and endocrinology. Additionally, this course includes relevant fundamental scientific principles in anatomy, pathology, and pharmacology. WWAMI Medical Education Program.

CRN	Section	Session/Dates	Days	Location	Time
11404	001	First Half Session	MTWRF	LEWH306	10:00am - 2:50pm

**MEDS 575. Professional Paper and Project. 1-4 Credits.** (1-4 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Graduate standing. Mechanism for M.S. students to complete scholarly project.

CRN	Section	Session/Dates	Days	Location	Time
11399	001	Full Semester	-	-	-

## ML - Modern Languages

**ML 100IH. Intro to World Cultures. 3 Credits.** (3 Rct) S  
 Introduces students to a range of issues in the field of international studies through an interdisciplinary approach to world regions. Through lectures, discussion, and project-based learning, students gain knowledge of key cultural, historical, and economic concepts in an international context. Students develop an understanding of national, regional, and area studies models for learning about global issues.

CRN	Section	Session/Dates	Days	Location	Time
11464	801	Second Half Session	-	-	-

**ML 344. Instructional Perspectives. 1 Credit.** (1 Lec; 3 cr max) F,S,Su  
 Max 3 cr. PREREQUISITE: FRCH 323 or FRCH 324; GRMN 330 or GRMN 331; SPNS 323 or SPNS 324. Students learn how various pedagogical approaches are realized through class discussion, observation, and practice under the direction of the faculty mentor.

CRN	Section	Session/Dates	Days	Location	Time
10231	001	First Half Session	-	-	-
10289	002	Second Half Session	-	-	-
10328	003	Second Half Session	-	-	-

**ML 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
 Max 12 cr. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10405	001	Full Semester	-	-	-

**ML 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10232	001	Full Semester	-	-	-

**ML 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10233	001	Full Semester	-	-	-

## MSL - Military Science Leadership

**MSL 292. Independent Study. 1-3 Credits.** (3 Ind; 6 cr max)  
 On demand Max 6 cr. PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10362	001	Full Semester	-	-	-

**MSL 490R. Undergraduate Research. 1-6 Credits.** (1-6 Ind; 12 cr max) F,S,Su  
 Max 12 cr. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10638	001	Full Semester	-	-	-

**MSL 492. Coop Education/Internship. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10234	001	Full Semester	-	-	-

## MUSE - Music-Education

**MUSE 530. Music, Society, Education. 3 Credits.** (3 Lec) Su alternate years, to be offered odd years.  
 PREREQUISITE: EDEL 410, EDSO 410 Philosophical, historical, psychological and social foundations of music education. Music in public education, music curricula, aesthetics, and music learning theory.

CRN	Section	Session/Dates	Days	Location	Time
11280	001	First Half Session	-	-	-

**MUSE 590. Professional Paper and Project. 1-4 Credits.** (1 Ind; 6 cr max) F,S,Su  
Max 6 cr. PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10689	001	Full Semester	-	-	-

**MUSE 592. Independent Study. 1-3 Credits.** On Demand

Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of Director and Dean of The Graduate School. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10688	001	Second Half Session	-	-	-

**MUSE 594. Seminar. 1 Credit.** (1 Sem; 4 cr max) On Demand

Max 4 cr. PREREQUISITE: Graduate standing or seniors by petition. Course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

CRN	Section	Session/Dates	Days	Location	Time
10685	001	Second Half Session	-	-	-

**MUSE 598. Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) On Demand

Max credits unlimited PREREQUISITE: Graduate standing, consent of instructor and Director. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10709	001	Full Semester	-	-	-

## MUSI - Music-General

**MUSI 101IA. Enjoyment of Music. 3 Credits.** (3 Lec) S

Introduces students to the rich legacy of Western Art Music, defined as notated musical traditions in Europe and later in the USA from liturgical chant to the present. Explores the historical context that led to the development of important genres and influenced the lives of composers. Facilitates active listening and curious inquiry into the language of music.

CRN	Section	Session/Dates	Days	Location	Time
11013	001	First Half Session	-	-	-
11096	002	Second Half Session	-	-	-

**MUSI 106. Music Theory II. 3 Credits.** (3 Lec) S

PREREQUISITE: MUSI 105. Continuation of study of materials used in the previous semester: diatonic harmony and analysis in the common practice style, musical notation and language, function and interaction of the elements of music.

CRN	Section	Session/Dates	Days	Location	Time
11282	001	Full Semester	-	-	-

**MUSI 203IA. American Popular Music. 3 Credits.** (3 Lec) F,S

A study of the way in which American popular music is a product of the social, political, and historical context in which it developed, and in turn how this context was shaped by this music.

CRN	Section	Session/Dates	Days	Location	Time
10863	001	First Half Session	WRF	HOWH108	3:00pm - 5:10pm
11281	002	First Half Session	-	-	-
11383	003	Second Half Session	-	-	-

**MUSI 307IA. World Music. 3 Credits.** (3 Lec) F,S

PREREQUISITE: Junior standing. Music, culture, and meaning within different traditions and styles from around the world.

CRN	Section	Session/Dates	Days	Location	Time
10673	001	First Half Session	MTWR	REID102	10:00am - 11:40am

**MUSI 348. Ensemble. 1 Credit.** (1 Lab; 8 cr max) F,S,Su

Max 8 cr. PREREQUISITE: Successful audition. Selected students perform in small, coached instrumental and vocal ensemble performance. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10235	002	Full Semester	MT	-	7:00pm - 9:00pm

**MUSI 450. Recital. 1 Credit.** (1 Ind; max unlimited) F,S,Su

COREQUISITE: MUSI 395 or MUSI 495. Selection of appropriate program of works suited to student's abilities, preparation for performance. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10533	001	Intersession	-	-	-

**MUSI 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand

1-3 cr., Max 6 cr. PREREQUISITE: Junior standing, consent of instructor and approval of the director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10348	001	Full Semester	-	-	-

**MUSI 495. Applied Music IV. 1-2 Credits.** (1-2 Studio; max 3 enrollment) F,S,Su

PREREQUISITE: MUSI 395 and successful audition. Continued study of techniques of performance and interpretation to develop musical ability, expressivity, accuracy, and stylistic awareness in student's performance area. May be repeated (maximum of three enrollments).

CRN	Section	Session/Dates	Days	Location	Time
10534	001	Intersession	-	-	-

**MUSI 550. Graduate Recital. 1 Credit.** (1 Ind) F,S,Su

PREREQUISITE: MUED 560. Formal recital to include works from different eras.

CRN	Section	Session/Dates	Days	Location	Time
10687	001	Full Semester	-	-	-

**MUSI 595. Applied Music. 1-2 Credits.** (1-2 Studio; max 3 enrollment) F,S,Su

PREREQUISITE: MUSI 495 or demonstrated proficiency and consent of instructor. Advanced studies of techniques of performance and interpretation to develop musical ability, expression, accuracy and stylistic awareness in student's performance area. May be repeated (maximum of three enrollments).

CRN	Section	Session/Dates	Days	Location	Time
10686	001	Intersession	-	-	-

## MUST - Music-Technology

**MUST 498. Internship. 1-6 Credits.** (2-6 Int; 12 cr max) On Demand

Max 12 cr. PREREQUISITE: Consent of instructor. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
11020	001	Full Semester	-	HOWH127	-

## NASX - Native American Studies

**NASX 105D. Intro Native Amer Studies. 3 Credits.** (2 Lec, 1 Rct) F,S

A survey of traditional and contemporary American Indian cultures, the historical development of the unique relationship between the federal government and Indian nations, and current issues among Indian peoples.

CRN	Section	Session/Dates	Days	Location	Time
10562	801	First Half Session	-	-	-
11490	002	Second Half Session	MTWR	WIL1116	10:00am - 11:40am

**NASX 232D. MT Indian Cult, Hist, Cur Issu. 3 Credits.** (3 Lec) S

3 cr. LEC 3 Movements of Indians into Montana. Social structures including kinship, political affiliations; military, warrior societies, and religion. Establishment of Montana's reservations; treaties and agreements with the federal government; vested rights of Indians; sovereignty and self-government; contemporary tribal governments; contemporary Indian societies; socioeconomic problems.

CRN	Section	Session/Dates	Days	Location	Time
10786	801	Second Half Session	-	-	-

**NASX 239. Native North American History through Art and Material Culture. 3 Credits.** (3 Lec) F

3 The aesthetic, cultural, and symbolic meanings of traditional and contemporary American Indian art: Plains, Southwestern, Northwest Coast, and Inuit art and artists.

CRN	Section	Session/Dates	Days	Location	Time
11136	001	Second Half Session	-	-	-

**NASX 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10498	001	Full Semester	-	-	-

**NASX 491. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand  
 PREREQUISITE: Course prerequisite as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11491	801	Full Semester	-	-	-

**NASX 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10238	001	Full Semester	-	-	-
10239	002	First Half Session	-	-	-
10240	003	Second Half Session	-	-	-

**NASX 498. Internship/Cooperative Educ. 2-12 Credits.** (2-12 Ind; 12 cr max) On Demand

An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10241	001	Full Semester	-	-	-

**NASX 551. American Indian Art Survey. 3 Credits.** (3 Lec) F  
 PREREQUISITE: Graduate standing. Exploration of the functions and purposes of the unique arts of North American indigenous peoples by culture area, in both the past and the present, within the overlapping contexts of culture area politics, cosmology, religion and spirituality, and gender.

CRN	Section	Session/Dates	Days	Location	Time
11183	801	Full Semester	-	-	-

**NASX 554. Indian Education for All. 3 Credits.** (3 Lec)  
 PREREQUISITE: Graduate standing. This course is an in-depth analysis of the theory and practice of cultural diversity in educational contexts. It examines the historical, political, and cultural forces that foster systematic disparities based on ascribed characteristics, and critically examines strategies for addressing such disparities. The evolution and implementation of Indian Education for All is explored.

CRN	Section	Session/Dates	Days	Location	Time
11492	801	Full Semester	-	-	-

**NASX 575. Professional Paper. 1-6 Credits.** (1-6 Ind; 6 cr max) F,S,Su  
 1-6 cr. IND Maximum 6 cr. PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major adviser and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10357	001	Full Semester	-	-	-
10358	002	First Half Session	-	-	-
11139	003	Second Half Session	-	-	-

**NASX 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind; 3 cr max) F,S,SU  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by graduate students who have completed all of their course work and their theses, if on a thesis plan, but who need additional faculty or staff time and assistance.

CRN	Section	Session/Dates	Days	Location	Time
10540	001	Full Semester	-	-	-
10541	002	First Half Session	-	-	-
10543	003	Second Half Session	-	-	-

**NASX 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10544	001	Full Semester	-	-	-

**NASX 592. Independent Study. 1-3 Credits.** (1-3 Ind; 3 cr max) On Demand  
 PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10242	001	Full Semester	-	-	-

**NASX 598. Internship. 1-6 Credits.** (1-6 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10775	001	Full Semester	-	-	-

## NRSG - Nursing

**NRSG 115. Nursing as a Profession. 2 Credits.** (2 Lec) F,S  
 Su The purpose of this course is to initiate and foster the professional socialization process. Content and activities expose students to issues surrounding the profession of nursing, multiple roles of nursing in society and health care, and concepts related to the dimensions of nursing practice: nurse, client, health and environment.

CRN	Section	Session/Dates	Days	Location	Time
10481	001	Full Semester	-	-	-
10482	002	Full Semester	-	-	-
10483	040	Full Semester	-	-	-
10484	004	Full Semester	-	-	-
10973	075	First Half Session	-	-	-
10974	078	First Half Session	-	-	-

**NRSG 220. Foundatns Ethcl Nrsng Recitattn. 2 Credits.** (1 Lec, 1 Rct) F,S,Su  
 Drawing on contemporary issues in bioethics this foundational course explores influential moral values, philosophical principles and theories as formal grounding for ethical decision making and action in health care. A broad historical, cultural and societal perspective is emphasized to provide the background for understanding the everyday ethical problems that health professionals encounter in their practices. A psychological and social framework of analysis is used to foster sensitivity, skills of analysis and ethical behavior in situations of moral conflict.

CRN	Section	Session/Dates	Days	Location	Time
10485	001	First Half Session	-	-	-
10486	002	First Half Session	-	-	-
10487	020	First Half Session	-	-	-
10603	021	First Half Session	-	-	-
10975	075	First Half Session	-	-	-
10977	078	Second Half Session	-	-	-
10978	079	Second Half Session	-	-	-
10982	076	First Half Session	-	-	-

**NRSG 225. Fndtns Plng Prvding Clin Nrs Cr. 4 Credits.** (2 Lec, 2 Lab) F,S,Su  
 PREREQUISITES: BIOH 201, BIOH 211, FCS 1011S, and BIOM 250.  
 COREQUISITES: NRSG 238 or consent of instructor. Application of nursing principles, concepts and related skills for care of the individual needing assistance. The clinical decision-making process is utilized in the provision of nursing care in clinical settings.

CRN	Section	Session/Dates	Days	Location	Time
10979	075	Second Half Session	-	-	-
10980	076	Second Half Session	-	-	-
10981	077	Second Half Session	-	-	-
10983	078	Second Half Session	-	-	-
10984	079	Second Half Session	-	-	-
10985	080	Second Half Session	-	-	-

**NRSg 238. Hlth Assmnt Across Lifespan. 4 Credits.** (2 Lec, 2 Lab) F,S,Su  
 PREREQUISITES: BIOH 201 and BIOH 211. COREQUISITE: NRSg 225 or consent of instructor. This course is designed to teach the student a health oriented approach to nursing assessment of clients across the life span in a variety of community based settings. The primary focus of the course is on normal health assessment findings, with recognition of abnormal variations. This course emphasizes development of the skills needed to perform a comprehensive health assessment of children, adults, and the elderly. Data collection through comprehensive history taking and physical assessment is emphasized. Utilizations of assessment findings in clinical decision making is discussed throughout the course.

CRN	Section	Session/Dates	Days	Location	Time
10986	075	First Half Session	-	-	-
10987	076	First Half Session	-	-	-
10988	077	First Half Session	-	-	-
10989	078	First Half Session	-	-	-
10990	079	First Half Session	-	-	-
10991	080	First Half Session	-	-	-

**NRSg 258. Principles of Pathophysiology. 3 Credits.** (3 Lec) F,S,Su  
 3 cr. LEC 3 PREREQUISITES: BIOH 201, BIOH 211, CHMY 121IN, and CHMY 123. This course provides an introduction to the abnormal functioning of human cells, tissues, and organ systems, and the physiological adaptations that occur. Commonly encountered age-related variations are addressed. The influences of environment, genetics, nutrition, and culture are emphasized. Current research that explains the changes that accompany a particular syndrome or disease is considered.

CRN	Section	Session/Dates	Days	Location	Time
10992	075	Full Semester	-	-	-
10993	078	Full Semester	-	-	-
11097	040	Full Semester	-	-	-
11298	001	Full Semester	-	-	-

**NRSg 292. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10236	001	Full Semester	-	-	-

**NRSg 336. Nursing Pharmacotherapeutics. 3 Credits.** (2 Lec, 1 Lab) F,S,Su  
 PREREQUISITES: CHMY 121, CHMY 123, NUTR 221, NRSg 258, and NRSg 238. The focus of this course is to examine pharmacotherapeutics in nursing practice. Clinical application of pharmacological and pathophysiological principles are integrated. Physical, psychological, social and cultural factors; age related variations; and alternative therapies are highlighted.

CRN	Section	Session/Dates	Days	Location	Time
10994	075	Full Semester	-	-	-
10995	076	Full Semester	-	-	-
10996	077	Full Semester	-	-	-
10997	078	Full Semester	-	-	-
10998	079	Full Semester	-	-	-
10999	080	Full Semester	-	-	-

**NRSg 341. Psychosocial Nursing Concepts. 3 Credits.** (2 Lec, 1 Lab) F,S,Su  
 PREREQUISITES: PSYX 100, SOCI 101, NRSg 115, NRSg 220, NRSg 225, NRSg 258 and NRSg 238. This course explores selected psychosocial concepts and theories basic to nursing practice with clients in a variety of settings. Topics include family theory, palliative care, crisis theory, anxiety, loss, grief & other human responses; and related psychosocial nursing strategies.

CRN	Section	Session/Dates	Days	Location	Time
11000	075	First Half Session	-	-	-
11001	076	First Half Session	-	-	-
11002	077	First Half Session	-	-	-
11003	078	First Half Session	-	-	-
11004	079	First Half Session	-	-	-
11005	080	First Half Session	-	-	-

**NRSg 469. Cultural Apps in Nursing. 1-6 Credits.** (1-6 Lec/Lab) F,S,Su  
 PREREQUISITE: Enrolled in the undergraduate nursing program. This elective course is designed as an intense but time-limited immersion into another culture and is focused on health benefits, health care, and nursing applications. The experience is preceded by analysis of cultural principles applicable to nursing and concluded by analysis of actual clinical participation with (specific culture) nurses and clients.

CRN	Section	Session/Dates	Days	Location	Time
11267	001	First Half Session	-	-	-

**NRSg 477. Pop Based Nursing Care in Comm. 6 Credits.** (3 Lec, 3 Lab) F,S,Su  
 PREREQUISITES: NRSg 437 and NRSg 454. The focus of this course is the health and well-being of the community. Global and national health problems are examined from a public health perspective. Community assessment and epidemiologic methods are used to identify populations at risk and potential areas for intervention.

CRN	Section	Session/Dates	Days	Location	Time
11006	075	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-
11007	076	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-
11008	077	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-
11098	078	Full Semester	-	-	-
11099	079	Full Semester	-	-	-
11100	080	Full Semester	-	-	-

**NRSg 487. Nursing Ldrshp/Mgmt Dvlpmnt. 6 Credits.** (3 Lec, 2 Lab) F,S  
 PREREQUISITES: NRSg 437, NRSg 444 and NRSg 454. Senior capstone course. The focus of this course is to provide an integration of theory and skill development in leadership, management and organizational concepts for the design, coordination, and management of health care using the community based philosophy.

CRN	Section	Session/Dates	Days	Location	Time
11009	075	Full Semester	-	-	-
11010	076	Full Semester	-	-	-
11011	077	Full Semester	-	-	-
11101	078	Full Semester	-	-	-
11102	079	Full Semester	-	-	-
11103	080	Full Semester	-	-	-

**NRSg 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITES: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10237	001	Full Semester	-	-	-

**NRSg 498. Internship. 3 Credits.** (3 Lab) Su  
 PREREQUISITE: Satisfactory completion of all 1st semester junior level clinical nursing courses. Placement subject to availability. This elective course is designed to increase competence and confidence in previously learned clinical skills. The student works with a registered nurse (RN) in a cooperating clinical agency for a period of intensified clinical experience.

CRN	Section	Session/Dates	Days	Location	Time
10313	020	Full Semester	-	-	-
10315	060	Full Semester	-	-	-
10335	040	Full Semester	-	-	-
10463	030	Full Semester	-	-	-
11012	001	Full Semester	-	-	-

**NRSg 504. Assmnt and Eval of Education. 3 Credits.** (3 Lec) Su, alternate years to be offered Su odd years. PREREQUISITE: Graduate Standing. Students engage in discussions around design, assessment, and evaluation of instruction by nurses. Topics include writing instructional objectives and constructing activities to assess student learning outcomes. Students complete a project to gain skills in evaluating learning related to a specific unit of study.

CRN	Section	Session/Dates	Days	Location	Time
11249	001	First Half Session	-	-	-

**NRSRG 519. Pharm for Middle Aged Adults. 1 Credit.** (1 Lec) Su  
 PREREQUISITE: NRSRG 517 or consent of instructor. Addresses pharmacological intervention in managing common health problems of midlife adults and their families. Students will apply knowledge of pharmacological management of commonly encountered health problems of middle aged adults.

CRN	Section	Session/Dates	Days	Location	Time
11258	001	Full Semester	-	-	-

**NRSRG 562. Primary Care II. 6 Credits.** (3 Lec, 3 Lab) Su  
 PREREQUISITE: N 561. This course includes content on the physiological, pathophysiological, psychological, development, sociocultural and spiritual primary health care needs of midlife families. Addresses assessment, intervention and preventative care.

CRN	Section	Session/Dates	Days	Location	Time
11259	001	Full Semester	-	-	-

**NRSRG 575. Professional Paper and Project. 1-4 Credits.** (1 Ind; 6 cr max) F,S,Su  
 Max 6 cr. PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
11260	001	Full Semester	-	-	-

**NRSRG 590. Master's Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Master's standing. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
11261	001	Full Semester	-	-	-

**NRSRG 591. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand  
 PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11120	001	First Half Session	-	-	-

**NRSRG 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 1 - 3 cr. IND Maximum 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10711	001	Full Semester	-	-	-

**NRSRG 594. Seminar. 1 Credit.** (1 Sem; 4 cr max)  
 PREREQUISITE: Graduate standing or seniors by petition. Course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

CRN	Section	Session/Dates	Days	Location	Time
10710	001	Full Semester	-	-	-

**NRSRG 609. Adv Practice Nrsng Ldrshp. 2 Credits.** (2 Lec) Su  
 PREREQUISITE: NRSRG 601, 602, 603. Prepares doctor of nursing practice students for direct and indirect advanced practice nursing roles and core competencies in organizational and systems leadership. Emphasis on leadership, communication, collaboration, negotiation, team functioning, conflict resolution and scholarship.

CRN	Section	Session/Dates	Days	Location	Time
11262	001	Full Semester	-	-	-

**NRSRG 620. Adv Pharm II. 3 Credits.** (3 Lec) Su  
 PREREQUISITE: NRSRG 601, 602, 603. Focuses on pharmacologic effects and clinical use of selected drug classifications for the treatment and management of acute and chronic illnesses. Ethical and legal responsibilities, pharmacologic mechanisms, contraindications, complimentary alternative medicine and patient education will be addressed.

CRN	Section	Session/Dates	Days	Location	Time
11263	001	Full Semester	-	-	-

**NRSRG 621. Advanced Clinical I-Fl. 6 Credits.** (3 Lec, 3 Lab) Su  
 PREREQUISITE: NRSRG 601, 602, 603, 604, 605 and 607. Focus on comprehensive assessment, intervention and preventive care for childbearing and childrearing families in primary health care. Includes content on physiological, pathophysiological, psychological, developmental, sociocultural and spiritual primary health care needs of childbearing and childrearing families.

CRN	Section	Session/Dates	Days	Location	Time
11264	001	Full Semester	-	-	-

**NRSRG 623. Advanced Clinical III Primary Care for Aging Families. 6 Credits.** (3 Lec, 3 Lab) Su  
 PREREQUISITES: NRSRG 622. Focus on assessment, treatment and preventative care for aging families in primary health care settings. Physiological, pathophysiological, psychological, developmental, sociocultural and spiritual responses to acute and chronic conditions will be explored emphasizing the importance of advocacy.

CRN	Section	Session/Dates	Days	Location	Time
11116	001	Full Semester	-	-	-

**NRSRG 630. Adv Psychopharm II. 3 Credits.** (2 Lec) Su  
 PREREQUISITE: NRSRG 601, 602, 603. Advanced concepts in the clinical management of psychiatric symptoms. Analyze psychotropic interventions, mechanisms of action and indications of use, dosing, side effects, drug-drug interactions, contraindications, and patient education. Psychotropic agents and complimentary alternative medicine.

CRN	Section	Session/Dates	Days	Location	Time
11265	001	Full Semester	-	-	-

**NRSRG 631. Advanced Clinical I – Psych/Mental Health. 6 Credits.** (3 Lec, 3 Lab) Su  
 PREREQUISITE: NRSRG 601, 602, 603, 604, 605, 607. The role and scope of advanced psychiatric nursing practice and foundational legal and ethical issues are explored. The neuroanatomy and neurophysiology of psychiatric disorders are reviewed. Conduct comprehensive and systematic psychiatric assessments in complex situations.

CRN	Section	Session/Dates	Days	Location	Time
11266	001	Full Semester	-	-	-

**NRSRG 633. Advanced Clinical III, Psych/Mental Health. 6 Credits.** (3 Lec, 3 Lab) Su  
 PREREQUISITES: NRSRG 632 In this course, students will explore the conceptual and theoretical foundations for providing psychotherapy with families and couples. Continuation of psychopharmacology concepts presented in Advanced Clinical I and II will be provided with an emphasis on expanded pharmacology concepts.

CRN	Section	Session/Dates	Days	Location	Time
11137	001	Full Semester	-	-	-

**NRSRG 675. Professional Paper and Project. 1-6 Credits.** (1-6 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: NRSRG 674. Professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
11325	001	Full Semester	-	-	-

## NRSM - Natural Resources Sci & Mgmt

**NRSM 292. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11414	001	Full Semester	-	-	-

**NRSM 490R. Undergrad Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
 Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis.

CRN	Section	Session/Dates	Days	Location	Time
11415	001	Full Semester	-	-	-



## NUTR - Nutrition

**NUTR 221CS. Basic Human Nutrition. 3 Credits.** (3 Lec) F,S,Su

Basic concepts of human nutrition which include carbohydrates, lipids, proteins, vitamins, minerals, absorption, digestion, metabolism, and energy utilization as they relate to health and food consumption at different stages of the life cycle.

CRN	Section	Session/Dates	Days	Location	Time
10784	802	Full Semester	-	-	-
10785	803	Full Semester	-	-	-

**NUTR 351. Nutrition and Society. 3 Credits.** (3 Lec) F

PREREQUISITE: NUTR 221CS. Social and cultural, economic, policy, and environmental factors in the community influencing nutritional status, and public health, techniques to assess community nutritional needs, and methodology for designing, implementing, and evaluating community nutrition programs, practices, and policies. Major service-learning project completed for a public or private agency.

CRN	Section	Session/Dates	Days	Location	Time
11507	801	Full Semester	-	-	-

**NUTR 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10148	001	Full Semester	-	-	-

**NUTR 524. Adolescent Nutrition. 2 Credits.** (2 Lec) S

This is an online course designed to provide teachers strategies for incorporating nutrition education into their curriculum. Course participants explore nutrition science relevant to adolescent health, gain exposure to quality education resources and investigate school wellness issues and strategies.

CRN	Section	Session/Dates	Days	Location	Time
10617	801	Intersession	-	-	-

**NUTR 575. Research/Prof Paper/Project. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su

PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10576	001	Full Semester	-	-	-
10852	002	Full Semester	-	-	-

**NUTR 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind; 3 cr max) F,S,Su

PREREQUISITE: Graduate standing in nutrition major. This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10661	001	Full Semester	-	-	-

**NUTR 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su

PREREQUISITE: Master's standing. Directed graduate research/creative activity.

CRN	Section	Session/Dates	Days	Location	Time
10326	001	Full Semester	-	-	-
10361	002	Full Semester	-	-	-

**NUTR 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su

PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of The Graduate School. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10497	001	Full Semester	-	-	-
10499	002	Second Half Session	-	-	-

## PHL - Philosophy

**PHL 101IH. Intro Phil:Reason and Reality. 3 Credits.** (3 Lec) F,S

Exploration of the nature of reality and human knowledge. A critical look at the presuppositions of our common sense world view.

CRN	Section	Session/Dates	Days	Location	Time
11477	801	First Half Session	-	-	-
11478	802	Second Half Session	-	-	-

**PHL 103D. Philosophy and Popular Culture. 3 Credits.** (2 Lec) S

alternate odd years Introduces philosophy to students through popular culture. Basic philosophical concepts, methods, and theories will be learned through discussion of technology, video games, films, television, therapy, sports, race, gender, alternative sexuality and drug use.

CRN	Section	Session/Dates	Days	Location	Time
11481	801	First Half Session	-	-	-

**PHL 110IH. Intro Ethics:Good and Evil. 3 Credits.** (3 Lec) F,S,Su

An examination of traditional and contemporary conceptions of good and evil.

CRN	Section	Session/Dates	Days	Location	Time
11479	801	Second Half Session	-	-	-
11480	802	Second Half Session	-	-	-

**PHL 322. Philosophy & Environmental Ethics. 3 Credits.** (3 Lec)

PREREQUISITE: Previous course in Philosophy or consent of instructor. This course reviews the major readings, both classical and contemporary, on environmental ethics, and isolates the major issues. It provides the appropriate theoretical background. It applies these readings and this background to the investigation and resolution of several environmental policy questions.

CRN	Section	Session/Dates	Days	Location	Time
11482	801	First Half Session	-	-	-

**PHL 327. Aesthetics and the Arts. 3 Credits.** (3 Lec)

PREREQUISITE: Previous course in Philosophy or consent of instructor. Philosophical examination of the nature and function of the arts and the aesthetic experience.

CRN	Section	Session/Dates	Days	Location	Time
11032	801	Second Half Session	-	-	-

**PHL 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su

Max 12 cr. Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10448	001	Full Semester	-	-	-

**PHL 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

Max 6 cr. PREREQUISITE: Consent of instructor and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10243	001	Full Semester	-	-	-
10244	002	First Half Session	-	-	-
10245	003	Second Half Session	-	-	-

**PHL 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department head, and Division of Education. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10712	001	Full Semester	-	-	-

## PHOT - Photography

**PHOT 113RA. Understanding Photography. 3 Credits.** (2 Lec, 1 Lab) F,S,Su

An introduction to traditional black and white photographic practice, theory and visual principles, including camera operation, use of B&W darkroom technique. Photography majors must take this class fall semester to fit into the sequential nature of the Photography program. A 35mm film camera is required for this class. School of Film and Photography.

CRN	Section	Session/Dates	Days	Location	Time
10411	001	First Half Session	T	VCB110	9:00am - 11:20am
10411	001	First Half Session	WR	VCB182	9:00am - 12:35pm

**PHOT 395. Practicum. 1-3 Credits.** (1-3 Ind; 12 cr max) F,S,Su

Max 12 cr. total for both PHOT 395 & FILM 395 combined. PREREQUISITE: PHOT 255 and PHOT 258. Practical experience associated with research projects in photography.

CRN	Section	Session/Dates	Days	Location	Time
11046	001	Full Semester	-	-	-

**PHOT 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand 1 - 3 cr. IND, May be repeated, Maximum 6 cr. total for FILM, PHOT & THTR 492 combined. PREREQUISITE: PHOT 255 and PHOT 258, consent of instructor and approval of school director. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
11047	001	Full Semester	-	-	-

**PHOT 494. Seminar/Workshop. 1-4 Credits.** (1-4 Sem; 12 cr max) PREREQUISITE: PHOT 255 and PHOT 258 or consent of instructor. Topics offered at the upper division level that are not covered in regular courses. Students participate in preparing and presenting discussion material.

CRN	Section	Session/Dates	Days	Location	Time
11045	001	First Half Session	TWR	VCB148	9:00am - 11:30am

**PHOT 498. Career Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) PREREQUISITE: Consent of School Director. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
11048	001	Full Semester	-	-	-

## PHSX - Physics

**PHSX 205. College Physics I. 4 Credits.** (3 Lec, 1 Lab) F,S,Su PREREQUISITE: High school trigonometry or M 151Q. First semester of sequence. Topics include kinematics and dynamics of linear and rotational motion; work and energy; impulse and momentum; and fluids. Students will not receive credit if they have passed PHSX 220 or PHSX 221.

CRN	Section	Session/Dates	Days	Location	Time
10373	001	First Half Session	W	EPS103	7:30am - 8:35am
10373	001	First Half Session	MTWRF	EPS103	8:45am - 9:50am
10374	002	First Half Session	TR	AJM146	10:00am - 11:50am
10375	003	First Half Session	TR	AJM146	12:00pm - 1:50pm
10587	004	First Half Session	TR	AJM146	2:00pm - 3:50pm
10868	005	First Half Session	TR	AJM146	4:00pm - 5:50pm

**PHSX 207. College Physics II. 4 Credits.** (3 Lec, 1 Lab) F,S,Su PREREQUISITE: PHSX 205 or PHSX 220. Second semester of sequence. Topics include simple harmonic motion; electric forces and fields; dc electric circuits; magnetic forces and fields; and magnetic induction and motors. Students will not receive credit if they have passed PHSX 222 or PHSX 242.

CRN	Section	Session/Dates	Days	Location	Time
10376	001	Second Half Session	W	EPS108	7:30am - 8:35am
10376	001	Second Half Session	MTWRF	EPS108	8:45am - 9:50am
10377	002	Second Half Session	TR	AJM146	10:00am - 11:50am
10379	003	Second Half Session	TR	AJM146	12:00pm - 1:50pm
10633	004	Second Half Session	TR	AJM146	2:00pm - 3:50pm

**PHSX 220. Physics I (w/ calculus). 4 Credits.** (3 Lec, 1 Lab) F,S COREQUISITE: M 171Q or M 181Q First semester of a three-semester sequence primarily for engineering and physical science students. Covers topics in mechanics (such as motion, Newton's laws, conservation laws, work, energy, systems of particles, and rotational motion) and in mechanical waves (such as oscillations, wave motion, sound, and superposition).

CRN	Section	Session/Dates	Days	Location	Time
11405	001	First Half Session	MTWRF	EPS108	8:20am - 9:50am
11406	002	First Half Session	MTWRF	AJM138	10:00am - 10:50am
11407	003	First Half Session	MW	AJM138	12:00pm - 1:50pm

**PHSX 222. Physics II (w/ calculus). 4 Credits.** (3 Lec, 1 Lab) F,S PREREQUISITE: PHSX 220 or PHSX 224; M 171Q or M 181Q. COREQUISITE: M 172Q or M 182Q. Covers topics in electricity and magnetism (such as Coulomb's law, Gauss' law, electric fields, electric potential, dc circuits, magnetic fields, Faraday's law, ac circuits, and Maxwell's equations) and optics (such as light, geometrical optics, and physical optics).

CRN	Section	Session/Dates	Days	Location	Time
11408	001	Second Half Session	MTWRF	EPS103	8:20am - 9:50am
11409	002	Second Half Session	MW	AJM146	10:00am - 11:50am
11410	003	Second Half Session	MW	AJM146	12:00pm - 1:50pm

**PHSX 224. Physics III. 4 Credits.** (3 Lec, 1 Lab) F PREREQUISITE: PHSX 222 or PHSX 242; M 172Q or M 182Q. Covers topics in thermodynamics (such as temperature, heat, laws of thermodynamics, and the kinetic theory of gases) and modern physics (such as relativity; models of the atom; quantum mechanics; and atomic, molecular, solid state, nuclear, and particle physics).

CRN	Section	Session/Dates	Days	Location	Time
11411	001	First Half Session	-	-	-
11412	002	First Half Session	MW	AJM137	12:00pm - 1:50pm

**PHSX 292. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand Max 6 cr. PREREQUISITE: Consent of instructor and approval of department head. Directed study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10246	001	Full Semester	-	-	-

**PHSX 401. Physics by Inquiry I. 3 Credits.** (3 Lab) Su PREREQUISITE: Teacher Certification. An in-depth and hands-on exploration of basic physics principles. Scientific model building and proportional reasoning skills will be developed in the context of dc electric, one and two dimensional kinematics, and dynamics. For middle school and high school science teachers.

CRN	Section	Session/Dates	Days	Location	Time
10566	001	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-

**PHSX 403. Physics by Inquiry III. 3 Credits.** (3 Lab) Su PREREQUISITE: Science Teacher Certification. COREQUISITE: PHSX 401. PHSX 403 is a continuation of the PHSX 401 experience, but it may also be taken concurrently with PHSX 401. The course will begin with a careful investigation of geometrical optics, leading to an understanding of pinhole cameras, lenses, and prisms. This will be followed by an exploration of magnetic interactions and magnetic materials.

CRN	Section	Session/Dates	Days	Location	Time
11307	001	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-

**PHSX 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su Max 6 cr. PREREQUISITE: Junior standing and signed consent of instructor/research advisor and academic advisor. Directed undergraduate research/creative activity, which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10449	001	Full Semester	-	-	-

**PHSX 491. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand Max 12 cr. PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
10369	801	Intersession	-	-	-

**PHSX 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand Max 6 cr. PREREQUISITE: Junior standing, consent of instructor and approval of department head. Directed study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10247	001	Full Semester	-	-	-
10248	002	First Half Session	-	-	-
10249	003	Second Half Session	-	-	-

**PHSX 511. Astronomy for Teachers. 3 Credits.** (3 Rct) F,S,Su  
 PREREQUISITE: PHSX 207 or PHSX 222 or PHSX 242; Graduate standing; Currently certified middle and high school teachers with one year of teaching experience. This is an online, distance education course primarily intended for science educators. Topics include: the laws of gravity and orbital dynamics, a survey of the solar system, stars and stellar evolution, galaxies, and Big Bang cosmology.

CRN	Section	Session/Dates	Days	Location	Time
11380	801	Full Semester	-	-	-

**PHSX 513. Quantum Mechanics Online. 3 Credits.** (3 Lec) Su alternate years, to be offered even years.

PREREQUISITE: Graduate standing; Currently certified high school teachers with one year of teaching experience; an introductory physics course; and a working knowledge of elementary differential and integral calculus. This online course addresses the key ideas behind quantum mechanical observations and devices, including the fundamental behavior of electrons and photons. Designed for practicing high school physics teachers. Assignments and discussions use electronic computer conferencing and simulation software.

CRN	Section	Session/Dates	Days	Location	Time
10336	801	Non-standard term dates 23-MAY-16 05-AUG-16	-	-	-

**PHSX 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S,Su  
 PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their coursework (and thesis, if on a thesis plan) but who need additional faculty or staff time or help.

CRN	Section	Session/Dates	Days	Location	Time
10250	001	Full Semester	-	-	-

**PHSX 590. Master's Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su  
 Max credits unlimited. PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10251	001	Full Semester	-	-	-

**PHSX 591. Special Topics. 1-4 Credits.** (1 Lec; 12 cr max) On Demand  
 Max 12 cr. PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
10728	003	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-
11377	802	Non-standard term dates 23-MAY-16 05-AUG-16	-	-	-
11519	801	Non-standard term dates 13-JUN-16 29-JUL-16	-	-	-

**PHSX 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10713	001	Full Semester	-	-	-
10714	002	Second Half Session	-	-	-
10715	003	Second Half Session	-	-	-

**PHSX 689. Doctoral Reading & Research. 3-5 Credits.** (3 Ind; 15 cr max) On Demand

Max 15 cr. PREREQUISITE: Doctoral standing. This course may be used by doctoral students who are reading research publications in the field in preparation for beginning doctoral thesis research.

CRN	Section	Session/Dates	Days	Location	Time
10252	001	Full Semester	-	-	-

**PHSX 690. Doctoral Thesis. 1-10 Credits.** (1 Ind; max unlimited) F,S,Su  
 Max credits unlimited. PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10253	001	Full Semester	-	-	-

## PSCI - Political Science

**PSCI 210IS. Introduction to American Government. 3 Credits.** (3 Lec) F,S,Su  
 3cr. LEC 3 Examines the major institutions of national government and politics. Special emphasis on the constitution and other political rules of the game as shapers of public consciousness and government policy.

CRN	Section	Session/Dates	Days	Location	Time
10864	801	First Half Session	-	-	-
11270	802	First Half Session	-	-	-

**PSCI 439. International Human Rights. 3 Credits.** (3 Lec) F alternate years  
 PREREQUISITE: PSCI 230D and junior standing. The development of human rights in legal and political context of the post-World War II period. Civil and political rights of due process; political participation and fundamental democratic freedoms; as well as social, cultural, and economic rights including basic human needs, self-determination, gender equality, and cultural integrity. National and International implementation is also considered.

CRN	Section	Session/Dates	Days	Location	Time
10668	801	Second Half Session	-	-	-

**PSCI 454. Cinema and Political Theory. 3 Credits.** (3 Lec) Su  
 3 cr. LEC 3 PREREQUISITE: PSCI 200, 210IS, 214IS, 230D or consent of the instructor. Explores the intersection of political theory with topics such as civil society, bureaucracy and public policy through the use of film. Special attention given to both descriptive and prescriptive applications of modern and contemporary political theory to these topics.

CRN	Section	Session/Dates	Days	Location	Time
10667	001	First Half Session	TWR	WIL1119	12:30pm - 2:50pm

**PSCI 491. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand  
 1 - 4 cr. Maximum 12 cr. PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

CRN	Section	Session/Dates	Days	Location	Time
11400	001	First Half Session	TWR	WIL1123	10:30am - 12:15pm

**PSCI 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand  
 1 - 3 cr. IND Maximum 6 cr. PREREQUISITE: Junior standing, cumulative GPA of 2.5 or higher, consent of the instructor, and approval of the department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10349	001	Full Semester	-	-	-
10350	002	First Half Session	-	-	-
10351	003	Second Half Session	-	-	-

**PSCI 498. Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) F,S,Su  
 2 - 12 cr. IND 5 - 11 RCT 1 - 2 PREREQUISITE: Junior standing, cumulative GPA of 2.5 or higher, consent of instructor, and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10254	001	First Half Session	-	-	-
10255	002	Full Semester	-	-	-
10472	003	Second Half Session	-	-	-
11364	080	Full Semester	-	-	-

**PSCI 589. Graduate Consultation. 1-3 Credits.** (1 Ind; 3 cr max) F,S,Su  
 PREREQUISITE: Master's standing and approval of the Dean of The Graduate School. This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty support.

CRN	Section	Session/Dates	Days	Location	Time
10256	001	Full Semester	-	-	-

**PSCI 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 1 - 3 cr. IND Maximum 6 cr. PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10718	001	Full Semester	-	-	-
10719	002	Full Semester	-	-	-

**PSCI 598. Internship. 3-12 Credits.** (3 Ind; 12 cr max) F,S,Su  
3 - 12 cr. IND 10 - 11 RCT 1 - 2 Maximum 12 cr. An individualized pre-professional assignment arranged with an agency, business, or other organization.

CRN	Section	Session/Dates	Days	Location	Time
10720	001	Full Semester	-	-	-

## PSPP - Plant Sciences/Plant Pathology

**PSPP 589. Graduate Consultation. 1-3 Credits.** (1-3 Ind) F,S,Su  
PREREQUISITE: Master's standing and approval of the Dean of Graduate Studies. This course may be used only by students who have completed all of their coursework (and thesis, if on a thesis plan), but who needs additional faculty or staff time help.

CRN	Section	Session/Dates	Days	Location	Time
10551	001	Full Semester	-	-	-

**PSPP 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max cr unlimited) F,S,Su  
PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10552	001	Full Semester	-	-	-

**PSPP 592. Independent Study. 1-3 Credits.** (1-3 Lec; 6 cr max) On Demand  
PREREQUISITE: Graduate standing, consent of instructor, approval of Department Head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10549	001	Full Semester	-	-	-
10581	002	Full Semester	-	-	-

**PSPP 598. Internship. 2-4 Credits.** (2-4 Ind; 12 cr max) F,S,Su  
PREREQUISITE: Graduate standing, consent of instructor and approval of Department Head, and Dean of Graduate Studies. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10550	001	Full Semester	-	-	-

**PSPP 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max cr unlimited) F,S,Su  
PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10553	001	Full Semester	-	-	-

## PSYX - Psychology

**PSYX 100IS. Intro to Psychology. 4 Credits.** (3 Lec, 1 Lab) F,S,Su  
Introduction to methods and approaches to psychology including exploration of problems in physiological psychology, learning, memory and information processing, abnormal behavior, and social psychology, with selected individual study of other areas related to the student's interests.

CRN	Section	Session/Dates	Days	Location	Time
10408	001	First Half Session	MWF	JONH346	9:00am - 10:45am
10409	002	First Half Session	MW	TRAP100	11:15am - 12:45pm

**PSYX 223. Research Design and Analysis I. 4 Credits.** (3 Lec, 1 Lab) F,S  
PREREQUISITE: PSYX 100 and either M 145 (or higher) or STAT 216. Introduction to the design and analysis of psychological research. Topics include logic and philosophy of psychological research, conceptualizing research questions, hypothesis testing, data collection and analysis strategies used by researchers in psychology, and introduction to using statistical software for data analysis.

CRN	Section	Session/Dates	Days	Location	Time
11271	001	First Half Session	MWF	TRAP100	9:00am - 11:10am
11272	002	First Half Session	F	ROBH110	11:20am - 1:30pm

**PSYX 225. Research Design and Analysis II. 3 Credits.** (3 Lec) F,S  
PREREQUISITE: PSYX 223. Continuation of PSYX 223. Topics include experimental, quasi-experimental, and non-experimental designs and methodological issues; assessing research questions; reliability and validity of psychological measures; ethics of psychological research; writing research reports; using statistical software for data analysis.

CRN	Section	Session/Dates	Days	Location	Time
11273	001	First Half Session	MWF	TRAP308	11:20am - 1:30pm

**PSYX 230. Developmental Psychology. 3 Credits.** (3 Lec) F  
PREREQUISITE: PSYX 100. Human development across the lifespan using major theories of development including psychoanalytic, psychosocial, learning, and cognitive. Physical, cognitive, social, emotional, and personality development are covered from conception to death.

CRN	Section	Session/Dates	Days	Location	Time
11274	001	Second Half Session	TR	WIL1147	9:00am - 12:15pm

**PSYX 263CS. The Psychology of Film. 3 Credits.** (3 Lec) S,Su  
PREREQUISITE: College Writing (W) and University Seminar (US) core. Uses psychological science to understand the persuasive power of media as portrayed in popular films. Evaluates the media's ability to both reflect and affect behavior. Focus is on contemporary themes such as aggression, drug use, sexuality, and prejudice.

CRN	Section	Session/Dates	Days	Location	Time
10674	001	First Half Session	MWF	TRAP308	1:40pm - 3:50pm

**PSYX 375. Behavior Modification. 3 Credits.** (3 Lec) F  
PREREQUISITE: PSYX 225 and PSYX 270 or PSYX 370. Human behavior change with emphasis on practical techniques for changing individual and group behavior in real-life situations.

CRN	Section	Session/Dates	Days	Location	Time
10847	001	First Half Session	-	-	-
11275	002	Second Half Session	-	-	-

**PSYX 385. Psychology of Personality. 3 Credits.** (3 Lec) S  
PREREQUISITE: PSYX 225. Theories and evidence on processes that underlie consistent and enduring differences in behavior, cognition, and affect. Topics include emotion, motivation, temperament, inner experience, identity and the self, personality change, the influence of sociocultural context, and related topics.

CRN	Section	Session/Dates	Days	Location	Time
11276	001	First Half Session	TR	TRAP100	12:30pm - 3:45pm

**PSYX 462. Psychology of Prejudice. 3 Credits.** (3 Lec) S  
PREREQUISITE: PSYX 100IS or consent of instructor. Reviews theory and research on prejudice. Topics include stereotyping and discrimination, cognitive and affective dynamics of prejudice, causes of prejudice, eliminating prejudice, affirmative action and diversity programs, and psychological effects of prejudice.

CRN	Section	Session/Dates	Days	Location	Time
10666	001	First Half Session	TR	TRAP308	8:45am - 12:15pm

**PSYX 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
Max 12 cr. PREREQUISITE: Junior or Senior standing, PSYX 225 and consent of instructor. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10410	001	Full Semester	-	-	-

**PSYX 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
Max 6 cr. PREREQUISITE: Junior standing, consent of instructor. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10257	001	First Half Session	-	-	-

**PSYX 494. Seminar. 3 Credits.** (3 Sem; 6 cr max) On Demand  
Max 6 cr. PREREQUISITE: PSYX 225 or consent of instructor. Topics in current Psychological Science offered at the upper division level that are not covered by catalogued courses. Topics vary each semester. Students participate in preparing and presenting discussion material based on primary journal articles. May be repeated twice for credit.

CRN	Section	Session/Dates	Days	Location	Time
11277	001	First Half Session	MWF	GH148	11:20am - 1:30pm

**PSYX 495. Field Pract in Applied Psy. 3-12 Credits.** (3 Ind; 12 cr max) On Demand

Field Practicum gives psychology majors direct experience in applied settings relevant to psychology. Students arrange an internship and submit progress reports summarizing their field experience while relating it to psychological principles and readings. Graded A - F.

CRN	Section	Session/Dates	Days	Location	Time
10464	001	Full Semester	-	-	-

**PSYX 499R. Senior Thesis/Capstone. 3 Credits.** (3 Sem) F,S  
 PREREQUISITE: PSYX 490 (minimum 3 cr.) or PSYX 491. Senior capstone course. Written and oral presentation of senior thesis work.

CRN	Section	Session/Dates	Days	Location	Time
10648	001	First Half Session	MWF	TRAP308	9:00am - 11:10am

**PSYX 575. Professional Paper and Project. 1-6 Credits.** (1 Ind; 6 cr max) F,S  
 Max 6 cr. PREREQUISITE: Graduate standing. A research or professional paper dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10258	001	Full Semester	-	-	-

**PSYX 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S  
 PREREQUISITE: Graduate standing and approval of The Graduate School. This course may be used only by students who have completed all of their course work (and thesis, if on a thesis option) for a master's degree but who need additional faculty help or time.

CRN	Section	Session/Dates	Days	Location	Time
10259	001	Full Semester	-	-	-

**PSYX 590. Master's Thesis. 1-10 Credits.** (1 Ind; 15 cr max) F,S  
 Max 15 cr. PREREQUISITE: Graduate standing.

CRN	Section	Session/Dates	Days	Location	Time
10260	001	Full Semester	-	-	-

**PSYX 592. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand  
 Max 6 cr. PREREQUISITE: Graduate standing, consent of instructor. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10716	001	Full Semester	-	-	-

## RLST - Religious Studies

**RLST 100D. Intro to the Study of Religion. 3 Credits.** (3 Lec)  
 -- The great themes of the world's religions and the methodological approaches to the academic study of religion and culture.

CRN	Section	Session/Dates	Days	Location	Time
10820	001	Second Half Session	-	-	-
11471	801	Second Half Session	-	-	-

**RLST 202D. Hindu Traditions. 3 Credits.** (3 Lec)  
 -- The sacred texts and the historical forms of religious thought and practice in the traditions of India.

CRN	Section	Session/Dates	Days	Location	Time
11472	801	Second Half Session	-	-	-

**RLST 203D. Buddhist Traditions. 3 Credits.** (3 Lec)  
 -- The sacred texts and images of the religious thought and practices in the traditions of China, Korea, India, Southeast Asia, and/or Japan.

CRN	Section	Session/Dates	Days	Location	Time
10866	001	First Half Session	-	-	-
11473	801	First Half Session	-	-	-

**RLST 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su  
 Max 12 cr. PREREQUISITE: Any RLST course. Directed undergraduate research. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10450	001	Full Semester	-	-	-

**RLST 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max)  
 Max 6 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10261	001	Full Semester	-	-	-
10262	002	First Half Session	-	-	-
10263	003	Second Half Session	-	-	-

## SFBS - Sustainable Food & Bioenergy

**SFBS 296. Practicum: Towne's Harvest. 3 Credits.** (1 Lec, 2 Lab) Su  
 PREREQUISITE: SFBS 146 or permission of instructor. Emphasizes hands-on field experience with small-scale market gardening, distribution through community-supported agriculture, and market sales at local farmers' markets. Students will complete one independent project, service-learning at local farms and complete weekly writing assignments.

CRN	Section	Session/Dates	Days	Location	Time
10740	001	Full Semester	M	-	8:00am - 12:00pm
10740	001	Full Semester	F	-	12:00pm - 3:00pm
10740	001	Full Semester	W	-	1:00pm - 5:00pm
10831	002	Full Semester	T	-	8:00am - 12:00pm
10831	002	Full Semester	F	-	12:00pm - 3:00pm
10831	002	Full Semester	R	-	1:00pm - 5:00pm

**SFBS 298. Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Consent of instructor. An individualized assignment with a professional agency to provide a guided field experience.

CRN	Section	Session/Dates	Days	Location	Time
10832	001	First Half Session	-	-	-
10833	002	Second Half Session	-	-	-

**SFBS 346. Sustainable Food and Bioenergy Systems Summer Field Course. 2 Credits.** (1 Lec, 1 Ind) Su  
 PREREQUISITES: SFBS 296 or consent of instructor. This field trip course compares and contrasts large-scale agricultural operations across Montana. Students will gain an appreciation of the choices, opportunities, and challenges facing conventional, diversified, and organic producers. Interdisciplinary and systems level thinking will be practiced.

CRN	Section	Session/Dates	Days	Location	Time
11248	001	Second Half Session	-	-	-

**SFBS 445R. Culinary Marketing: Farm/Table. 3 Credits.** (1 Lec, 2 Lab) Su  
 PREREQUISITE: FCS 371, NUTR 221CS, NUTR 226, NUTR 227, and NUTR 322 or permission of instructor. Emphasizes hands-on food experience, including market garden tending and harvesting, distribution by community supported agriculture, food marketing and retail at farmers' markets, culinary practice with seasonal garden produce and food preservation, educational outreach and culinary demonstrations, and independent research projects.

CRN	Section	Session/Dates	Days	Location	Time
10680	001	Second Half Session	R	HH117	9:00am - 12:00pm
10680	001	Second Half Session	F	HH120	9:00am - 2:00pm

**SFBS 498. Internship. 1-12 Credits.** (1-12 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Consent of instructor. An individualized assignment with a professional agency to provide a guided field experience.

CRN	Section	Session/Dates	Days	Location	Time
10853	001	Full Semester	-	-	-

**SFBS 541. Culinary Marketing: Farm to Table. 3 Credits.** (1 Lec, 2 Lab) Su  
 PREREQUISITE: NUTR 226, NUTR 227, NUTR 322, NUTR 395 or equivalent and graduate standing. Emphasizes hands-on food experience, including market garden tending and harvesting, distribution by community supported agriculture, food marketing and retail at farmers' markets, culinary practice with seasonal garden produce, food preservation and product development, teaching and culinary demonstrations, and marketing plan development.

CRN	Section	Session/Dates	Days	Location	Time
10843	001	Second Half Session	R	HH117	9:00am - 12:00pm
10843	001	Second Half Session	F	HH120	9:00am - 2:00pm

## SOCI - Sociology

**SOCI 101IS. Introduction to Sociology. 3 Credits.** (3 Lec)  
 Theoretical and methodological underpinnings of sociology. How theory guides investigation of social life and results in creation of factual knowledge. How sociological questions are studied and results are interpreted.

CRN	Section	Session/Dates	Days	Location	Time
10432	801	First Half Session	-	-	-
11129	802	Second Half Session	-	-	-
11130	803	First Half Session	-	-	-

**SOCI 150D. Social Difference. 3 Credits.** (3 Lec)

Examination of social differences by focusing on the construction and consequences of a limited set ascribed social characteristics: race, ethnicity, gender, sexual orientation and class. Focus on how these ascribed statuses are central to the sociological study of inequality.

CRN	Section	Session/Dates	Days	Location	Time
11496	801	First Half Session	-	-	-

**SOCI 221IS. Criminal Justice System. 3 Credits.** (3 Lec) On Demand

This course is an overview of the institutions that comprise our justice system. The emphasis is on criminal justice and the sources of crime but topics relevant to the broader study of the law and justice included.

CRN	Section	Session/Dates	Days	Location	Time
11131	001	Second Half Session	-	-	-

**SOCI 318R. Sociological Research Methods. 3 Credits.** (3 Lec)

PREREQUISITE: SOCI 101IS and SOCI 202. Introduction to research methods in sociology with emphasis given to defining variables, hypothesis formation, and development of strategies used to test hypotheses. Student research project.

CRN	Section	Session/Dates	Days	Location	Time
11088	801	Second Half Session	-	-	-

**SOCI 325. Social Stratification. 3 Credits.** (3 Lec)

PREREQUISITE: SOCI 101IS. The study of socio-economic inequality and its intersection with racial and gender inequality. Class and class structure in America. Changes in economic inequality. Social policy and economic inequality.

CRN	Section	Session/Dates	Days	Location	Time
11497	801	First Half Session	-	-	-

**SOCI 326. Sociology of Gender. 3 Credits.** (3 Lec)

PREREQUISITE: SOCI 101IS. Examines the social and biological bases of gender; how gender is constructed through socialization, social interaction and institutional processes, and the social, cultural and economic consequences of gender differences for men and women.

CRN	Section	Session/Dates	Days	Location	Time
11132	801	First Half Session	-	-	-

**SOCI 332. Sociology of the Family. 3 Credits.** (3 Lec)

PREREQUISITE: SOCI 101IS. The family as a structural and functional unit in social life and organization, as a unit of social control; its status, change, and associated problems.

CRN	Section	Session/Dates	Days	Location	Time
11089	801	First Half Session	-	-	-

**SOCI 490R. Undergraduate Research. 1-6 Credits.** (1-6 Ind; 12 cr max)

PREREQUISITE: SOCI 101IS. Directed undergraduate research which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10594	001	Full Semester	-	-	-

**SOCI 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) On Demand

PREREQUISITE: SOCI 101IS, and at least Junior standing, and approval of Department Head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10264	001	Full Semester	-	-	-
10265	002	First Half Session	-	-	-
10266	003	Second Half Session	-	-	-

**SOCI 498. Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) On Demand

PREREQUISITE: SOCI 101IS, and at least Junior standing, and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field. See departmental qualification standards for internships.

CRN	Section	Session/Dates	Days	Location	Time
10267	001	Full Semester	-	-	-

**SOCI 592. Independent Study. 1-3 Credits.** (1 Ind; 3 cr max) On Demand

PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10717	001	Full Semester	-	-	-

**SPNS - Spanish****SPNS 101. Elementary Spanish I. 3 Credits.** (3 Rtc.)

An elementary level course designed to help students acquire basic proficiency in communicating within culturally significant contexts. An integrated approach to teaching language skills with emphasis on vocabulary acquisition and basic grammatical structures.

CRN	Section	Session/Dates	Days	Location	Time
10473	099	Full Semester	-	-	-
10650	001	First Half Session	MTWR	GH243	10:00am - 12:20pm

**SPNS 102D. Elementary Spanish II. 3 Credits.** (3 Rtc.)

PREREQUISITE: SPNS 101 or equivalent as determined by CLEP. This course builds upon the foundation established in 101. Emphasis is placed upon oral and written expression. Reading and discussions are designed to increase comprehension of more linguistically complex texts and more conceptually complex cultural issues.

CRN	Section	Session/Dates	Days	Location	Time
10474	099	Full Semester	-	-	-
10651	001	Second Half Session	MTWR	GH243	10:00am - 12:20pm

**SPNS 201D. Intermediate Spanish I. 3 Credits.** (3 Rct)

PREREQUISITE: SPNS 102D. Or, equivalent as determined by CLEP exam. Intensive, methodical review of grammar and syntax combined with the integrated development of proficiency in the four language skills. Expansion of cultural knowledge and functional vocabulary through intermediate-level readings and discussions. Increased emphasis on written communication.

CRN	Section	Session/Dates	Days	Location	Time
10475	099	Full Semester	-	-	-

**SPNS 335IH. Travel in Latin Am Lit & Film. 3 Credits.** (3 Rct) Su

PREREQUISITE: SPNS 220 or Junior standing. The course examines travel in Latin America texts and films as exploration and search for individual and national identity and as disruptive displacements caused by political and economic forces and the problems of adapting to a new environment. In English.

CRN	Section	Session/Dates	Days	Location	Time
10496	001	First Half Session	MWF	GH143	12:30pm - 2:50pm

**SRVY - Surveying****SRVY 230. Intro to Srvyng for Engineers. 3 Credits.** (2 Lec, 1 Lab) F,S,Su

PREREQUISITE: M 165Q or M 171Q or M 181Q and EGEN 116 or DDSN 101. Surveying field practice, error propagation analysis, survey for project design.

CRN	Section	Session/Dates	Days	Location	Time
10333	001	First Half Session	MTWR	COBH429	8:45am - 9:50am
10334	002	First Half Session	MW	COBH429	12:30pm - 1:35pm
10334	002	First Half Session	MW	-	1:40pm - 4:05pm

## STAT - Statistics

**STAT 216Q. Introduction to Statistics. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: C- or better in any 100 level or above M course, or Math Placement Test within the past 12 months. Traditional and resistant estimators of location and spread, fundamentals of inference using randomization and classical methods, confidence intervals, and tests of hypotheses.

CRN	Section	Session/Dates	Days	Location	Time
10393	001	First Half Session	MTR	WIL1119	7:30am - 8:35am
10393	001	First Half Session	MTR	WIL1119	8:45am - 9:50am
10394	002	First Half Session	MTR	GH143	7:30am - 8:35am
10394	002	First Half Session	MTR	GH143	8:45am - 9:50am
10395	004	First Half Session	-	-	-
10478	003	First Half Session	MTR	WIL1119	10:00am - 11:05am
10478	003	First Half Session	MTR	WIL1119	11:15am - 12:20pm
10479	005	First Half Session	-	-	-
10554	006	First Half Session	-	-	-
10564	007	Second Half Session	MTR	WIL1119	7:30am - 8:35am
10564	007	Second Half Session	MTR	WIL1119	8:45am - 9:50am
10598	008	Second Half Session	MTR	GH143	7:30am - 8:35am
10598	008	Second Half Session	MTR	GH143	8:45am - 9:50am
10735	009	Second Half Session	MTR	WIL1119	10:00am - 11:05am
10735	009	Second Half Session	MTR	WIL1119	11:15am - 12:20pm
10736	010	Second Half Session	-	-	-
10829	011	Second Half Session	-	-	-
10830	012	Second Half Session	-	-	-

**STAT 217Q. Intermediate Statistical Concepts. 3 Credits.** (3 Lec) F,S,Su  
 PREREQUISITE: C- or better in STAT 216Q. One- and two-sample tests and associated confidence intervals for means and proportions; analysis of variance; F-tests, correlation, regression, contingency tables. Statistical analysis using the computer.

CRN	Section	Session/Dates	Days	Location	Time
10646	001	First Half Session	MTR	ROBH113	10:00am - 11:05am
10646	001	First Half Session	MTR	ROBH113	11:15am - 12:20pm
10647	002	Second Half Session	MTR	ROBH113	10:00am - 11:05am
10647	002	Second Half Session	MTR	ROBH113	11:15am - 12:20pm

**STAT 290R. Undergraduate Research. 1-8 Credits.** (1-8 Ind; 8 cr max) F,S,Su  
 PREREQUISITE: Consent of department head. Directed undergraduate research. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10676	001	Full Semester	-	-	-

**STAT 332. Statistics for Scientists and Engineers. 3 Credits.** (3 Lec) F,S  
 PREREQUISITE: M 172Q. Methods of estimation, data collection, analysis and display of quantitative information, continuous and discrete random variables, families of probability distributions, hypothesis testing, regression, ANOVA.

CRN	Section	Session/Dates	Days	Location	Time
11499	001	First Half Session	MTR	WIL1132	10:00am - 11:05am
11499	001	First Half Session	MTR	WIL1132	11:15am - 12:20pm

**STAT 490R. Undergraduate Research. 1-6 Credits.** (1-6 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Junior standing in statistics and consent of department head. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10396	001	Full Semester	-	-	-

**STAT 492. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su  
 Max 6 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10268	001	Full Semester	-	-	-

**STAT 498. Internship. 2-12 Credits.** (2-12 Ind; 12 cr max) F,S,Su  
 PREREQUISITE: Junior standing, consent of instructor, and approval of department head. An individualized assignment arranged with an agency business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10391	001	Full Semester	-	-	-

**STAT 575. Professional Paper and Project. 1-4 Credits.** (1-4 Lec; 6 cr max) F,S,Su  
 PREREQUISITE: Graduate standing. A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

CRN	Section	Session/Dates	Days	Location	Time
10269	001	Full Semester	-	-	-

**STAT 576. Internship. 2-12 Credits.** (2-12 I; max cr unlimited) F,S,Su  
 PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10392	001	Full Semester	-	-	-

**STAT 589. Graduate Consultation. 3 Credits.** (3 Ind) F,S,Su  
 PREREQUISITE: Master's standing. This course may be used only by students who have completed all of their coursework (and thesis, if on a thesis plan) but who need additional faculty or staff time.

CRN	Section	Session/Dates	Days	Location	Time
10270	001	Full Semester	-	-	-

**STAT 590. Master's Thesis. 1-10 Credits.** (1-10 Ind; max cr unlimited) F,S,Su  
 PREREQUISITE: Master's standing.

CRN	Section	Session/Dates	Days	Location	Time
10271	001	Full Semester	-	-	-

**STAT 592. Independent Study. 1-3 Credits.** (1-3 Ind; 6 cr max) F,S,Su  
 PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10721	001	Full Semester	-	-	-

**STAT 689. Doc Reading & Research. 3-5 Credits.** (3-5 Ind; 15 cr max) F,S,Su  
 PREREQUISITE: Doctoral standing. This course may be used by doctoral students who are reading research publications in the field in preparation for doctoral thesis research.

CRN	Section	Session/Dates	Days	Location	Time
10272	001	Full Semester	-	-	-

**STAT 690. Doctoral Thesis. 1-10 Credits.** (1-10 Ind; max unlimited) F,S,Su  
 PREREQUISITE: Doctoral standing.

CRN	Section	Session/Dates	Days	Location	Time
10273	001	Full Semester	-	-	-

## TE - Technology Education

**TE 250CS. Technology and Society. 3 Credits.** (1 Lec, 2 Lab) F,S,Su  
 Closely linked to the various sciences, technology has developed out of human need to solve real problems of society and to advance science. An exploration and examination of major technological periods, inventions, and innovations that have altered the course of humanity and their impact on the civilization process will lead to a perspective on technological literacy. This course will introduce students to the study of technology, not so much as a method for "doing technology," but as an impetus for social and cultural change related to technology.

CRN	Section	Session/Dates	Days	Location	Time
10747	001	Non-standard term dates 16-MAY-16 05-AUG-16	-	-	-

**TE 498. Internship. 2-12 Credits.** (1 Lab; 12 cr max) F,S,Su  
Max 12 cr. PREREQUISITE: Junior standing, consent of instructor, and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in a technology field.

CRN	Section	Session/Dates	Days	Location	Time
10322	001	Full Semester	-	-	-

**TE 501. History and Philosophy of Technology Education. 3 Credits.** (3 Lec) F,Su  
A review of national trends and issues in Technology Education and their implications for program development at the local, state and national level.

CRN	Section	Session/Dates	Days	Location	Time
10560	001	Intersession	-	-	-

## THTR - Theatre

**THTR 122IA. Acting for Non-Majors. 3 Credits.** (3 Lec) F

S, Su, On demand An introduction to the creative process engaged by a performer on a stage. Taught in a workshop format in which the individual student engages in exercises designed to convey stories and emotions through the understanding of human behavior as expressed on a stage.

CRN	Section	Session/Dates	Days	Location	Time
10669	001	First Half Session	MWF	VCB233	9:00am - 12:05pm

## UC - University College

**UC 298. Internship. 1-6 Credits.** (1-6 Int; 6 cr max) On Demand

Max 6 cr. PREREQUISITE: Consent of instructor and approval of department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10845	001	Full Semester	-	-	-

## US - University Studies

**US 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor, and approval of the Director of University Studies. Directed study on an individual basis.

CRN	Section	Session/Dates	Days	Location	Time
10441	001	Full Semester	-	-	-

**US 498. Internship. 1-12 Credits.** (1-12 Ind; 12 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor, and approval of the Director of University Studies. An individual assignment arranged with an agency, business, or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
10844	001	Full Semester	-	-	-

## USP - Undergraduate Scholars Program

**USP 290R. Undergraduate Scholars Program. 1-4 Credits.** (1 Lec; max unlimited) On Demand

PREREQUISITE: 1st or 2nd year student and consent of collaborating faculty member. First and second year students in this course will conduct research in collaboration with a faculty member which may culminate in a research paper, a journal article, or an oral presentation. Course will address responsible conduct of research.

CRN	Section	Session/Dates	Days	Location	Time
10451	001	Full Semester	-	-	-

**USP 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 12 cr max) F,S,Su

Max 12 cr. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10452	001	Full Semester	-	-	-

## WGSS - Women's and Gender Studies

**WGSS 201IH. Intro to Feminist Theories. 3 Credits.** (3 Lec) F

Major directions in feminist scholarship. Examination of the various schools of thought which have addressed gender inequities, and review of the strategies of cultural criticism which incorporate gender.

CRN	Section	Session/Dates	Days	Location	Time
11402	001	First Half Session	-	-	-

## WILD - Fish & Wildlife Science & Mgmt

**WILD 429. Yellowstone Wildlife Habitat Ecology. 2 Credits.** (2 Lec) Su

PREREQUISITES: Junior standing and a Biology course or consent of instructor.

This course will describe the native communities of the internationally prominent northern Yellowstone winter range for wild ungulates. The ecology of many organisms, both plant and animal will be studied. Plant identification skills will be incorporated with an emphasis on the recognition of the Yellowstone northern range's flora and its importance as wildlife habitat. Ecosystem interrelationships will form the basis for understanding the ecology of the range and interpreting the consequences of management alternatives.

CRN	Section	Session/Dates	Days	Location	Time
11234	001	Intersession	-	-	-

**WILD 498. Internship. 1-4 Credits.** (1-4 Ind; 8 cr max) On Demand

PREREQUISITE: Approval of intern program by instructor and the department head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10812	001	Full Semester	-	-	-

**WILD 575. Professional Paper and Project. 1-4 Credits.** (1 Ind; 4 cr max) F,S,Su

Max 4 cr. Graduate standing and committee approval and consent of instructor.

A research or professional paper or project dealing with a topic in the field. The topic must be mutually agreed upon by the student and his or her major advisor and graduation committee.

CRN	Section	Session/Dates	Days	Location	Time
10805	001	Full Semester	-	-	-

## WLDG - Welding Technology

**WLDG 281. Weld Testing Certification Lab. 2 Credits.** (2 Lab) Su

PREREQUISITES: Limited to students with at least 3 years welding experience, or previous certification, or consent of instructor. Students will prepare, practice and qualify for plate and pipe, according to AWS D1.1, APT 1104, and ASME Section IX codes and standards. Gallatin College.

CRN	Section	Session/Dates	Days	Location	Time
11375	001	Second Half Session	-	-	-

## WRIT - Writing

**WRIT 101W. College Writing I. 3 Credits.** (3 Lec) F,S,Su

Studies in the discovery and written expression of ideas, stressing organization, support, audience awareness, clarity, and persuasive presentation. Taught around a particular topic or theme varying with each offering.

CRN	Section	Session/Dates	Days	Location	Time
10312	001	First Half Session	MWF	GH344	10:00am - 12:20pm
10320	002	First Half Session	-	-	-
11083	003	Second Half Session	MWF	WIL1123	10:00am - 12:20pm

**WRIT 104. Workplace Communications. 2 Credits.** (2 Lec) F

Offered by Gallatin College. This course reviews the basic elements of grammar and language arts skills in business writing. Emphasis is placed on writing business letters, memos, emails, and reports for a variety of business applications as well as giving oral presentations. Letters of application and resumes are also covered.

CRN	Section	Session/Dates	Days	Location	Time
11043	001	Second Half Session	-	-	-



**WRIT 201. College Writing II. 3 Credits.** (3 Lec) F,S

PREREQUISITE: WRIT 101W. Study and practice of strategies and devices of expository and argumentative prose. Builds upon writing skills learned in WRIT 101.

CRN	Section	Session/Dates	Days	Location	Time
10321	002	Second Half Session	MWF	ROBH208	10:00am - 12:20pm
11029	001	First Half Session	MWF	WIL1115	10:00am - 12:20pm

**WRIT 490R. Undergraduate Research. 1-6 Credits.** (1 Ind; 6 cr max) F,S,Su

Max 12 cr. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research. May be repeated.

CRN	Section	Session/Dates	Days	Location	Time
10401	001	Full Semester	-	-	-
10402	002	First Half Session	-	-	-
10403	003	Second Half Session	-	-	-

**WRIT 492. Independent Study. 1-3 Credits.** (1 Ind; 6 cr max) On Demand

Max 6 cr. PREREQUISITE: Junior standing, consent of instructor and approval of department chair. Directed research and study on an individual basis. May not be used in lieu of another required course in the English curriculum.

CRN	Section	Session/Dates	Days	Location	Time
11084	001	Full Semester	-	-	-
11085	002	First Half Session	-	-	-

**WRIT 498. Internship. 1-12 Credits.** (1-12 Ind; 12 cr max) On Demand

PREREQUISITE: Junior standing, consent of instructor and approval of department chair. An individual assignment arranged with an agency, business or other organization to provide guided experience in the field.

CRN	Section	Session/Dates	Days	Location	Time
11086	001	Full Semester	-	-	-

# Telephone Numbers

Academic Affairs, Office of the Provost and Vice President	212 Montana Hall	994-4371
Administration and Finance, Office of the Vice President	201 Montana Hall	994-4361
Admissions, Office of	201 Strand Union	994-2452
Agriculture, College of	202 Linfield Hall	994-3681
Arts and Architecture, College of	217 Cheever Hall	994-4405
ASMSU, Student Government	281 Strand Union Building	994-2933
Bookstore	185 Strand Union Building	994-2811
Career Services	125A Strand Union Building	994-4133
Counseling and Psychological Services	211 Swingle Health Center	994-4531
Disability, Re-Entry and Veteran Services	180 Strand Union	994-2824
Education, Health and Human Development, College of	250 Reid Hall	994-4133
Engineering, College of	214 Roberts Hall	994-2272
Extended University Burns Technology Center (BTC)	128 EPS Building	994-6550
Continuing Education, Office of	204 Culbertson Hall	994-6683
Extension, Office of the Dean and Director	205A Culbertson	994-6647
Financial Aid Services	183 Strand Union Building	994-2845
Graduate School	108 Montana Hall	994-4145
Health Service	121 Swingle Health Center	994-2311
International Programs	400 Culbertson Hall	994-4031
Jake Jabs College of Business and Entrepreneurship		994-4421
Letters and Science, College of	2-205 Wilson Hall	994-4288
Library		994-3119
Museum of the Rockies		994-2251
Nursing, College of	115 Sherrick Hall	994-3783
Outdoor Recreation Center	1401 W. Lincoln Street	994-3621
PE Complex	114 Hosaeus	994-5500
Police, Campus	Huffman Building	994-2121
Post Office	Culbertson Hall, 1st Floor	994-2672
President, Office of the	211 Montana Hall	994-2341
Registrar, Office of the	101 Montana Hall	994-6650

Research, Creativity and Technology Transfer, Office of the Vice President

207 Montana Hall	994-2891
Residence Life	31 Hedges Complex 994-2661
ASK US Information	Strand Union Building 994-4636
ASMSU	Strand Union Building 994-2933
Food Service	Strand Union Building 994-3663
Recreation Center	106 Strand Union Bldg 994-5803
Student Accounts	Controller's Office, 103 Montana Hall 994-1991
Student Activities	282 Strand Union Building 994-3591
Student Success, Office of	177 Strand Union Building 994-7627
Students, Dean of	120 Strand Union Building 994-2826
Summer Session, Office of	212 Montana Hall 994-7136
Testing Service	243 Reid Hall 994-6984
University Studies	130 Gaines Hall 994-3532
Women's Center	372 Strand Union Building 994-3836

## Additional Information

### Catalog

#### Office of Admissions

201 Strand Union Building  
P.O. Box 172190  
Montana State University  
Bozeman, MT 59717-2190  
(406) 994-2452  
Toll free 1-888-MSU-CATS  
admissions@montana.edu  
www.montana.edu/admissions

### Financial Aid

#### Office of Financial Aid

183 Strand Union Building  
P.O. Box 174160  
Montana State University  
Bozeman, MT 59717-4160  
(406) 994-2845  
www.montana.edu/wwwfa

# Departmental Contacts

Students seeking information regarding specific courses are encouraged to contact the appropriate academic departments. Following is a list of course rubrics with the contact phone numbers and email addresses of the overseeing departments.

<b>ACTG</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>AGBE</b>	Dept. of Agricultural Economics and Economics	994-3702	aboyd@montana.edu
<b>AGED</b>	Division of Agricultural Education	994-2132	aged@montana.edu
<b>AMST</b>	College of Letters and Science	994-4288	dcherry@montana.edu
<b>ANTH</b>	Dept. of Sociology & Anthropology	994-4201	kelsey.martin3@montana.edu
<b>ARCH</b>	School of Architecture	994-5772	rortego@montana.edu
<b>ARNR</b>	Dept. of Animal & Range Sciences	994-5582	deniset@montana.edu
<b>ARTH</b>	School of Art	994-4501	art@montana.edu
<b>ARTZ</b>	School of Art	994-4501	art@montana.edu
<b>ASTR</b>	Dept. of Physics	994-6186	sbarutha@physics.montana.edu
<b>BCH</b>	Dept. of Chemistry & Biochemistry	994-4801	chemistry@chemistry.montana.edu
<b>BFIN</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BGEN</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BIOB</b>	Dept. of Ecology	994-2911	ecology@montana.edu
<b>BIOE</b>	Dept. of Ecology	994-2911	ecology@montana.edu
<b>BIOH</b>	Dept. of Cell Biology & Neuroscience	994-5120	cbn@cns.montana.edu
<b>BIOL</b>	Dept. of Cell Biology & Neuroscience	994-5120	cbn@cns.montana.edu
<b>BIOO</b>	Dept. of Ecology	994-2911	ecology@montana.edu
<b>BMGT</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BMIS</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BMKT</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BREN</b>	Dept. of Civil Engineering	994-2111	cedept@ce.montana.edu
<b>CAA</b>	College of Arts & Architecture	994-6654	kimberly.sinrud@montana.edu
<b>CE</b>	Dept. of Civil Engineering	994-2111	cedept@ce.montana.edu
<b>CET</b>	Dept. of Civil Engineering	994-2111	cedept@ce.montana.edu
<b>CHBE</b>	Dept. of Chemical & Biological Engineering	994-2221	chbe@coe.montana.edu
<b>CHMY</b>	Dept. of Chemistry & Biochemistry	994-4801	chemistry@chemistry.montana.edu
<b>CHTH</b>	Dept. of Health & Human Development	994-4001	hhd@montana.edu
<b>COA</b>	Dept. of Health & Human Development	994-4001	hhd@montana.edu
<b>COM</b>	University Studies	994-3532	universitystudies@montana.edu
<b>CS</b>	Dept. of Computer Science	994-4780	csinfo@cs.montana.edu
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