Greetings!

This Summer 2016 Bulletin includes:

1) Summer 2016 Course Information:
   - date, time and place
   - materials and textbooks
   - physical requirements
2) City of Bozeman Information
3) Bozeman and Surrounding Area Activities
4) Restaurants

Diana Paterson, the MSSE Associate Director, coordinates summer campus class registration. She can be reached at dianap@montana.edu or (406) 994-5679. She is wonderfully helpful and can answer last minute registration questions.

Summer campus housing details will be outlined at the MSSE website once course registration opens. The MSSE dorms for summer 2016 will be located in Langford Hall and the rates will be $28/night for a single and $46/night for double occupancy. Pets are not allowed in any campus housing. Information and the link to register will be provided to you upon open registration.

If you are in Bozeman for longer than 30 days, you may contact Family and Graduate Housing at fgho@montana.edu, or call (406) 994-3730 for more details. There are a number of housing options for single students and students with families. Please submit your application as soon as possible during the spring semester, as space is very limited. There is a $100 application fee.

Other housing options are summer vacation rentals or Hostels:

https://www.airbnb.com/s/Bozeman--United-States

http://www.bozemancottage.com/

http://www.vrbo.com/vacation-rentals/usa/montana/yellowstone/bozeman

Bozeman Backpacker’s Hostel, Phone: 406-580-3330

When you arrive on campus, pick-up your “CAT Card” in the Strand Union Building (SUB) at the CAT Card Office located on the basement level. Save your CAT Card as it becomes your library card, gym pass, debit card (if you deposit funds on account). This photo ID is good for life!

Questions regarding federal financial aid eligibility and completion of the Free Application for Federal Student Aid (FAFSA) should be directed to the Office of Financial Services at Montana State University (phone 406-994-2845). General financial aid information is available at www.montana.edu/wwfa.
All Valley Cab company (406-388-9999) charges about $34 for a taxi from the airport to the center of campus, with additional persons at $5 each. MSU does not have an airport shuttle service.

If you are taking field classes this summer, you will need clothing and footwear appropriate for mixed-weather and rugged terrain. Several classes will travel into high altitude back country areas where dressing in layers for changing weather conditions is critical. For any trip into the mountains, carry plenty of water, snacks (lunch for all day outings), hat, sunscreen, sunglasses, insect repellant, rain/wind protective jacket, warm layer of clothing, and solid-shoes or boots. A hand lens, notebook, pencil & pens (waterproof), and day pack (to carry everything) is helpful. Specific course requirements are enclosed. If you require an accommodation because of a disability, please contact the MSSE Office.

Everyone is invited to attend the Eighteenth Annual Symposium in Science Education, July 5th-9th, 2016 in Reid Hall, rooms 101 and 102. The symposium is open to the public and includes Capstone Project Presentations by the 2016 MSSE degree candidates. The 2016 Graduation Reception is scheduled for Saturday, July 9th. This party is a social for all MSSE students, alumni, family, friends and faculty to honor graduates. A request for RSVP numbers from graduates will be sent out late spring.

### Social Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Place</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, June 21</td>
<td>7:30-8 am</td>
<td>451 Reid Hall</td>
<td>Question and Answer Session</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Come meet your peers and enjoy some coffee, juice, &amp; donuts</td>
</tr>
<tr>
<td>Tuesday, July 5</td>
<td>6-7:30 pm</td>
<td>Reid Hall 105</td>
<td>Capstone Orientation</td>
</tr>
<tr>
<td>Saturday, July 9</td>
<td>7-9 pm</td>
<td>SUB Ballroom</td>
<td>Graduation Reception</td>
</tr>
<tr>
<td>Tuesday, July 12</td>
<td>7:30-8 am</td>
<td>451 Reid Hall</td>
<td>Question and Answer Session</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Come meet your peers and enjoy some coffee, juice, &amp; donuts</td>
</tr>
</tbody>
</table>

Feel free to contact us with any questions or concerns. We look forward to seeing you this summer when you arrive on campus. Be sure to stop by Reid Hall Room 451 to visit!

**Dr. Peggy Taylor**  
Director  
406-994-1741  
peggy.taylor@montana.edu

**Holly Thompson**  
Program Officer  
406-994-7485  
msse@montana.edu

**Diana Paterson**  
Associate Director  
406-994-5679  
dianap@montana.edu

**Intercollege Programs for Science Education**  
451 Reid Hall  
P.O. Box 172805  
Bozeman, MT 59717  
Tel: (406) 994-5679  
Fax: (406) 994-5575  
msse@montana.edu  
www.montana.edu/msse
Welcome to Bozeman!

Home of Montana State University, Bozeman is located in the heart of the scenic Gallatin Valley and is 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 such as:

- Hiking & backpacking
- Rock climbing
- Mountain biking
- Fly fishing
- River rafting, kayaking, canoeing, and paddle boarding
- Wildlife viewing
- Photography
- Yellowstone National Park

Bozeman’s climate reflects its mountain valley location. Summers are pleasant with warm days, cool nights, and an abundance of sunshine. City attractions include quaint shopping experiences, restaurants and coffeehouses, and museums. Ten city parks with picnic and playground areas, tennis courts, indoor and outdoor swimming pools, skateboard facilities and BMX bike park, four golf courses in the city and surrounding areas. bozeman.net

Campus Facilities and Activities

Parking Permits
You will need to purchase a permit if you plan to park a car on campus. Daily passes can be purchased for $3 per day and are available at Langford Hall or the University Police Department. montana.edu/parking

Campus Maps:
montana.edu/campusmap

Hosaeus Fitness Center
Guest passes are available for $8 per day or $22 per week. Facility features pool, free weights area, climbing wall, group fitness classes, tennis courts, racquetball courts, indoor running track, cardio area, saunas, and locker rooms. Closed on the 4th of July.

montana.edu/getfit

MSU Recreation Center
A social gathering place, bowling, billiards, foosball, videos, tournaments, and classes. Located in the MSU Strand Union Building.

montana.edu/subrec
Outdoor Recreation Program
ASMSU’s Outdoor Recreation Program (406-994-3621) offers equipment rentals, coordinated group outings, an outdoor resource center. Students and their families are eligible to rent equipment. Rafts, canoes, paddle boards, tents, bicycles and other outdoor gear are available. Rates are based on half-day, daily, or weekends. Maps, magazines, trail guides, and informational materials are available. This is a great option for equipment rentals for your summer field courses.

[Link to outdoorrecreation website]

Phasmid Rentals
You can also rent gear (and vehicles if you want to plan a trip) from Phasmid Rentals (406-922-0179). They are located near the airport and specialize in any item you might need for your Montana stay. They even rent bear spray!

[Link to phasmidrentals website]

Community Services and Activities

Bozeman City Bus Service
Streamline Bus Company moves people around Bozeman or the Gallatin valley quickly and conveniently and best of all, riding on Streamline is free. Routes stretch from the MSU campus to downtown and surrounding communities. Brochures are available at Hannon Hall and at the “ASK US” Information Center in the MSU Strand Union Building. [Link to streamlinebus website]

Museum of the Rockies
The world-renowned Museum of Rockies features one of the finest paleontology collections in North America. The museum offers 2- Day and week-long summer camps for children, grades 1st through 5th. Camp activities will focus on paleontology, astronomy and space. The museum also has a discovery center for younger children ranging in age from infant to 6 years. [Link to museumoftherockies website]

American Computer museum
The museum is open every day 10:00 am to 4:00 pm and admission is free. Check their website for current exhibits. [Link to compustory website]

Children’s Museum of Bozeman
A great place for little ones to play and learn. The museum is open Monday to Saturday 10:00 am to 5:00 pm. [Link to cmbozeman website]

Bozeman Recreation Department
This Bozeman Recreation Department offers a variety of programs, special events and recreation classes such as soccer, cooking, Castles & Knights, basketball, canoeing and Kayaking, Nature Discovery, Outdoor Adventure Skills and more. Also find information on The Bozeman Swim Center. [Link to bozeman website]

Bozeman Public Parks
The city is loaded with wonderful public parks. One special park for smaller children is the Dinosaur Park. It is a great place to soak up some sunshine, picnic, and play. [Link to dinosaurplayground website]
**Shakespeare in the Parks**
Montana Shakespeare in the Parks is a theatrical group presenting live, professional theatre productions in the MSU Park.  [montana.edu/shakespeare](http://montana.edu/shakespeare)

**Music Events**

**Lunch on the Lawn** features a variety of musical styles including blues, jazz, polka, bluegrass and more. Join other music lovers on the Emerson lawn, 111 Grand Avenue on Wednesday 11:30 am to 1:30 pm.

**Music on Main** occurs every Thursday evening, July – mid August, from 6:30 pm to 8:30 pm, 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.

**Farmers Market with Arts and Crafts**

**Bogert Farmer’s Market**
Gather, socialize, and share with others the Bogert Farmers’ Market held every Tuesday evening from 5:00 pm to 8:00 pm. Locally grown produce, arts, crafts, music, food, family activities and more are featured at Bogert Park, South Church Avenue.

**Gallatin County Fairgrounds**
Every Saturday morning from 9:00 am to 12:00 noon (June-September) at the Gallatin County Fairgrounds, join the public and enjoy fresh fruit and vegetables, baked goods, arts and crafts.

**Downtown Art Walk**
The second Friday of the month from June through August from 6:00 pm to 8:00 pm, stroll downtown while the art galleries and shops stay open late to showcase featured artists.

**Bozeman Bowl**
Open every day from 9:00 am till late. Located at: 414 E Babcock Street. Call 406.586.5018 for more information.

**Gallatin County Fair Grounds**
The Big Sky Country Fair, formally Gallatin County Fair, runs July 18th through the 24th. The five day event includes: The Bozeman Roundup Ranch Rodeo, Dog Dock Diving, Pig Wrestling, Mutton Bustin, Arts & Crafts Shows, Livestock Shows, and classic fair cuisine.

[gallatincountyfair.com](http://gallatincountyfair.com)

**Spire Climbing Center**
A 6000 square foot state of the art roped climbing center for youths and adults.

[spireclimbingcenter.com](http://spireclimbingcenter.com)
Websites for Outdoor Activities

Gallatin National Forest
fs.fed.us/r1/gallatin

Montana Fish, Wildlife & Parks
fwp.mt.gov

Bozeman Chamber of Commerce website contains information on the Bozeman area activities including backpacking, horseback riding, fly fishing, golfing, shopping, hiking, biking, and Yellowstone National Park information.

bozemanchamber.com

Bozeman Area July 4th Events

Bozeman
Watch the fireworks at the Bozeman Fairgrounds. Starting at 9:00 pm, head to the fairgrounds for food and music, and then watch one of the largest firework displays in Montana at dusk. Another favorite spot to watch the fireworks is on top of Peet’s Hill/Burke Park.

Livingston
The Livingston Roundup Rodeo begins on July 2nd and runs through the 4th. This three day festival kicks off with a parade down Main Street. Professionals and amateurs from around the country gather for the rodeo and compete. For rodeo ticket information, visit:

livingston-chamber.com

Big Sky
Music in the Mountains: Free July 4th events (music, vendors, and fireworks) at Center Stage at Town Center Park in Big Sky. Registration for the events begins at 9:00 am and includes a 5 mile and 10 mile mountain bike ride, tennis, 1k kids run/walk, kid’s activities, duck race, flag football, and a disk golf tournament. There is also a BBQ from 11:00 am to 2:00 pm, with proceeds going to the parks committee. Then in the evening, a band will play and there will be a fireworks display. For more information:

bigskyarts.org

Virginia City
Weekend events before the 4th of July include historic demonstrations, food and contests. Also, on the 4th there will be a firework display at dusk. For more information:

virginiacity.com

Ennis
Ennis Rodeo & Fourth of July Parade on Main Street. For more information:

ennischamber.com
Area Hot Springs

**Bozeman Hot Springs**
Open Mon-Thurs 6:00 am -11:00 pm; Fri 6:00 am - 4:30 pm; Sat 5:30pm – 11:00 pm; Sun 8:00 am -11:00 pm, $8.50/adult, $7 with MSU ID (Cat Card)

[bozemanhotsprings.com](http://bozemanhotsprings.com)

**Chico Hot Springs**
Open 8:00 am – 11:00 pm Daily; $7.50/person

[chichotsprings.com](http://chichotsprings.com)

**Norris Hot Springs**
Open 10am to 10pm, closed Tuesday; $7/adult

[norrishotsprings.com](http://norrishotsprings.com)

Area Attractions

**Yellowstone National Park**
Only a 1.5 hour drive from Bozeman, a day trip to Yellowstone is an unforgettable activity when visiting the area. Find all the information you need here:

[nps.gov/yell](http://nps.gov/yell)

**Grizzly & Wolf Discovery Center**
A wildlife park and educational facility located in West Yellowstone. The center allows you to observe grizzlies playing in a waterfall, fishing in their ponds, and see the social structure of two wolf packs.

[grizzlydiscoveryctr.org](http://grizzlydiscoveryctr.org)

**Local Hiking Trails**
Find information about beautiful day hikes and other local recreation through the Outside Bozeman:

[outsidebozeman.com/places/trails](http://outsidebozeman.com/places/trails)

**Missouri Headwaters State Park**
Visit the confluence of the Jefferson, Gallatin, and Madison Rivers that come together to start the great Missouri River. Find information on Lewis & Clark Caverns, Buffalo Jump State Park and much more.

[stateparks.mt.gov/missouri-headwaters](http://stateparks.mt.gov/missouri-headwaters)
Summer 2016 Campus Course Information

BIOE 520 Understanding & Managing Animal Biodiversity in the Greater Yellowstone Ecosystem

BIOE 523 Wildlife Ecology of the Northern Rocky Mountains

BIOE 591 Alpine Ecology

BIOE 591 Land Use Issues in the Greater Yellowstone Ecosystem

CHMY 594 Science Lab Safety and Risk Management

CSCI 591 Computer Science in the Classroom: An Introduction to Computational Thinking

EDCI 575 Professional Capstone Paper and Symposium in Science Education

EELE 591 Solar Cell Basics for Science Teachers

ERTH 516 Northern Rocky Mountain Geology

ERTH 594 Geology Seminar: Geology of Earthquakes

GEO 521 Dinosaur Paleontology I

LRES 557/MB 547 Thermal Biology in Yellowstone Park

LRES 569 Ecology of Invasive Plants in the greater Yellowstone Ecosystem

LRES 591 Lake Ecology

PHSX 401 Physics by Inquiry I

PHSX 591 Teaching Mechanics Using Research-Based Curriculum

PSPP 548 Flowering Plants of the Northern Rocky Mountains

PSPP 591 Biomimicry: Technology of Biology
Summer 2016 Campus Course Information

June 13-17, 2016

CSCI 591 Computer Science in the Classroom: An Introduction to Computational Thinking (2 cr)
Class: MTWRF 8-5pm
Location: EFS 254
Field Trips: None
Instructor: John Paxton, Computer Sciences
**Textbook Requirement:** Materials provided by instructor.

June 20-24, 2016

BIOE 520 Understanding & Managing Animal Biodiversity in the Greater Yellowstone Ecosystem (2 cr)
Class: M 8:30 am to 12 Noon; Lunch break; Afternoon Field Trip 1:00 to 5:00 pm
Location: Lewis Hall, Room 304
Field Trips: TWRF 8:00 am – 5:00 pm
Instructor: Jay Rotella, MSU Ecology Department
**Textbook Requirement:** Materials provided by instructor.
**Physical Fitness Requirement:** Field trips require walking up to 2 miles on moderate slopes on established trails.

EELE 591 Solar Cell Basics for Science Teachers (2 cr)
Class: MTWRF 8:00 am- 5:00 pm
Location: Cobleigh Hall, Room 632
Instructor: Todd Kaiser, MSU Electrical Engineering Department
**Textbook Requirement:** Materials provided by instructor.

PSPP 548 Flowering Plants of the Northern Rocky Mountains (2 cr)
Class: MT 9:00 am to 4:00 pm
Field Trips: WRF 9:00 am to 4:30 pm
Location: Plant Growth Center, Room 214
Instructor: Robyn Klein, MSU Plant Sciences and Plant Pathology Department
**Textbook Requirement:**
Author: Harris, James and Harris, Melinda
Title: *Plant Identification Terminology: An Illustrated Glossary*
Publisher: Spring Lake Publishing
ISBN #: 978-0964022164
Text available through MSU Bookstore (888)-247-2546
**Physical Fitness Requirement:** Field trips require walking up to 2 miles on moderate slopes.

June 25, 2016

ERTH 594 Geology Seminar: Geology of Earthquakes (1 cr)
Class: Sat 8:00 am to 5:00 pm
Location: T B D
Instructor: Dave Lageson, MSU Earth Science Department
The course will feature a day-long trip to the famous Hebgen Lake earthquake site in the southern Madison Range. Hiking shoes, pay pack, lunch, water bottle, jacket and/or rain gear, field notebook (and pens), and personal items for a day-long field trip are all required.
June 27-July 1, 2016

BIOE 523 Wildlife Ecology of Northern Rocky Mountains (2 cr)
Class: M 8:00 am- 5:00 pm
Location: Lewis Hall, Room 407
Field Trips: Depart at 6:00 am Tuesday for 3 nights, return Friday
Instructor: Dave Willey, MSU Ecology Department
Textbook Requirement: Materials provided by instructor.

Students are expected to provide the following minimum equipment for their camping needs:
1. One-or two-person, light-weight, non-bulky tent (no big, heavy “family” tents- we don’t have room for these); team up with another student to share a two-person tent if possible.
2. Sleeping bag and pad (no bulky air mattresses)
3. Basic cooking equipment & utensils (team up with another student). No big Coleman stoves or lanterns (bring small, lightweight, back-packing equipment)
4. Minimal clothing for one week (layers for hot and cold weather)
5. Largest can available of bear “pepper spray” (active ingredient = capsaicin)
6. Personal toiletries, sunglasses, hat, daypack, water bottle, sunscreen, camera, field notebook and pen, etc.
7. Food for 1 day (we will restock food supplies on a daily basis, or as needed)
8. Large coolers will be provided for perishable food.

Physical Fitness Requirements: The course requires moderate outdoor physical activity. Students are expected to walk several miles, often in relatively steep terrain without established hiking trails. Please contact the MSSE office before signing up for this class if you have concerns about the required physical fitness level and your ability to meet these requirements.

LRESS57/MB 547 Thermal Biology in Yellowstone Park (2 cr)
Class: MTWRF 9:00 am to 5pm
Location: Gaines Hall, Room 143 (Lab Gaines Hall 249)
Field Trip: Depart Wednesday 8:00 am; Return Thursday 6:00 pm (Tent camping)
Location: Meet van at MSU Strand Union Building, South Entrance
Instructor: Brent Peyton, MSU Chemistry Department; Christine Smith, Thermal Biology Institute
Textbook Requirement: Students to purchase book from instructor ($20)

Students are expected to provide the following minimum equipment for their camping needs:
- Sleeping bag and pad
- Personal toiletries, sunglasses, hat, daypack, water bottle, sunscreen, camera, field notebook and pen, etc.
- Clothing for hot and cold weather (warm hat and coat, shorts and sun hat).
- Good hiking shoes (no open toed shoes).

Physical fitness requirement: Field trips will require walking distances of up to 5 miles with moderate slopes at high elevation (7000 ft.) and will involve being in the field for the majority of the day. Weather may vary!

ERTH 516 Northern Rocky Mountain Geology (2 cr)
(Contact MSSE office for registration)
Class: MTWRF 8-5pm Daily field trips, departure 8:00 am
Location: Meet van at MSU Strand Union Building, South Entrance
Instructor: Dave Lageson, MSU Earth Sciences Department
Textbook Required: Materials provided by instructor

Physical fitness requirements: In order to study the geology of southwest Montana in the field, this course will involve moderate outdoor physical activity. Many of our stops will be at outcrops by the side of the road (involving very little hiking), but in some instances we will need to hike in order to visit key outcrops and/or make key geologic observations. Most hikes will be fairly short (less than five miles) and on reasonably well-developed trails, but off-trail hiking may also be necessary. Furthermore, the hiking terrain may be steep and rocky at times; Elevations will range from 5,000 to 9,000+ ft. Interested students should contact Diana in the MSSE office to register for the course and to communicate their ability to meet the physical fitness requirements for the course. Please email Diana at dianap@montana.edu.

PSPP 591 Biomimicry: The Technology of Biology (2 cr)
Class: MTWRF 9:00 am to 4:00 pm
Location: Plant Growth Center, Room 214
Field Trips: TW 9:00 am to 5 pm
Instructor: Robyn Klein, MSU Plant Sciences and Plant Pathology Department
July 5-9, 2016

EDCI 575 Professional Capstone Paper and Symposium in Science Education (3 cr)

(Graduate Candidates Only)
Class: TWRFS 7:00 am to 7:00 pm
Location: Reid Hall, Rooms 101, 102
Instructor: Peggy Taylor, MSU IPSE Department

Textbook Requirement: None

CHMY 594 Science Lab Safety & Risk Management (1 cr)
Class: TWRFS 1:00 pm to 4:00 pm
Location: Chemistry and Biochemistry Building Room #3
(CHBCH #3) Instructor: Steve Holmgren, MSU Chemistry Department

Textbook Requirement: Materials provided by instructor

LRES 569 Ecology of Invasive Plants (2 cr)
(Symposium presenters will not be able to participate in this course.)
Class: TWRFS 8:00 am to 5:00 pm
Location: ABS Hall Room 238 from 8 am to 11 am; ABS 234 from 12 Noon to 5 pm
Field Trips: Depart Monday, return Friday
Instructor: Bruce Maxwell, MSU Land Resources and Environmental Science Department

Textbook Requirement: Materials provided by instructor.

July 11-15, 2016

GEO 521 Dinosaur Paleontology I (2 cr)
Class: MTWRF Depart Monday 8:00 am for Field Camp at Makoshika State Park and return on Friday evening.
Location: Meet van at MSU Strand Union Building, South Entrance
Instructor: Dan Lawver, oversight provided by Frankie Jackson, MSU Earth Sciences Department

Textbook Requirement: Materials provided by instructor.

Facilities: Individual cabins that are rustic but completely furnished and accommodate 4-6 students, a lodge where meals will be provided, and a separate shower house with toilet facilities. Students should bring a sleeping bag or other bedding and personal items such as towels, shower shoes, etc. Space for tent camping is also available. Special dietary requirements should be noted on the registration form. Students should have appropriate hiking boots and be prepared for rain and cool weather. Additional required items include backpack, field notebook and pencils, and water containers (3-4 liters total capacity).

Physical fitness requirements: The course requires moderate to strenuous outdoor physical activity. Students are expected to walk several miles, at a reasonable pace in order to keep up with the group, often in relatively steep terrain without established hiking trails. Temperatures are often in the 90°F range. Please contact the MSSE office before signing up for the class if you have concerns about the required physical fitness level and your ability to meet these requirements.

BIOL 591 Land Use Issues in Greater Yellowstone Ecosystem (2 cr)
(Symposium presenters will not be able to participate in this course.)
Class: M 8:00 am to 1:00 pm
Location: Lewis Hall 205
Field Trips: M 1:00 pm to 5:00 pm, TWR 8:00 am- 6:00 pm
Instructor: Jerry Johnson, MSU Political Science and Ecology Departments

Textbook Requirement: Materials provided by instructor

PHSX 591 Teaching Mechanics Using Research-Based Curriculum (2 cr)
Class: MTWRF 9:00 am- 12:00 pm & 2:00 pm- 5:00 pm
Location: EPS Building, Room 110
Instructor: Greg Francis, MSU Physics Department

Textbook Optional:
Author: McDermott and Shaffer
Title: Tutorials in Physics and Homework Package
Publisher: Pearson
ISBN: 9780130970695
Text available through MSU Bookstore (888)-247-2546
July 18-22, 2016

BIOL 591 Alpine Ecology (2 cr)
Field Trip: M-F Depart 6:00 am – Return Friday pm. Overnight stay at Jack Creek Preserve. (Prior to start of course, instructor will provide information regarding meeting and departure times on D2L)
Location: Monday 6 am meet van at MSU Strand Union Building. South Entrance.
Instructor: John Winnie, MSU Ecology Department
Textbook Information: Course materials provided by instructor online in D2L by June 15.
Physical and Gear Requirements: The field component of this class is substantial, and teacher-participants should be prepared to spend the better part of each day hiking and doing field work in moderately rugged terrain at high elevations (>6000'). Participants should be able to hike several miles at a stretch and be comfortable spending full days in the field.
This means having and carrying the following field gear:
- A light, comfortable day pack into which all this gear will fit
- Bear repellant - immediately accessible in a holster on your pack belt Required! But please note that you cannot fly with this item in your bag, so you will need to purchase it when you arrive in Bozeman.
- Comfortable, all-weather, sturdy, above-the-ankle hiking boots - no tennis shoes!
- Lightweight rain gear, preferably breathable
- Mid weight fleece or wool pullover or sweater
- Sunglasses, Hat, Sun screen
- High energy snack food & a lunch to keep you going for a full day on the trail. All food should be double-bagged in zipper- style bags
- 1 or 2 1L water bottles, or a Camelbak style bladder with drinking hose
- First aid kit
- Headlamp or flashlight with spare batteries
- Binoculars
- Field notebook and pencils. Rite-in-the-Rain, or similar notebooks are best. Usually available at the MSU bookstore
- Compass, and if you have one, a GPS
- Personal toletry and first aid kit containing any necessary medications

If you have a medical condition that could present as an emergency in the field, you must notify the MSSE program before signing up for this class. We will be operating in a remote area with unreliable, and at times, no cell service, so emergency services will be delayed.
Equipment can be rented at the Outdoor Recreation Program (SOB Barn) on campus: http://www.montana.edu/outdoorrecreation

BIOE 591 Ecology of Trout Streams (2 cr)
Class: M 8:00 am -5:00 pm
Location: Lewis Hall 304
Instructor: Billie Kerans & Tom McMahon, Department of Ecology Field Trips: Daily field trips Tuesday-Friday, 8-6pm, no overnight stays
Textbook Requirement: Materials provided by instructor

Physical Fitness Requirement: Field Trips require moderate outdoor physical activity. Students are expected to walk up to 2 miles on moderately slopes, often without established hiking trails. Please contact the MSSE office before signing up for this class if you have concerns about the required physical fitness level and your ability to meet these requirements.

PHSX 401 Physics by Inquiry I (3 cr) (1st of 2 weeks)
Class: MTWRF 9:00 am to 5:00 pm
Location: EPS Building, Room 110
Instructor: Dr. Gregory Francis, MSU Physics Department
Textbook Requirement:
Author: McDermott and Shaffer
Title: Physics by Inquiry, Volume 2
Publisher: Willey
ISBN #: 9780471548706
Text available through MSU Bookstore (888)-247-2546
July 25-29 2016

LRES 591 Lake Ecology (2 cr)
Class: ABB 238. M 9:00 am to 5:30 pm, T 8:30 am-10:30 am, F 1:00 pm-5:00 pm Gaines 18
Class Lab: Gaines 18. R 2:30 pm-5:00 pm, F 9:00 am-noon
Field Trip: Tuesday Departure at 10:15 am, Return 2:00 pm Thursday
Location: Meet van at MSU Strand Union Building, South Entrance
Instructors: Stephanie McGinnis, MSU Land Resources and Environmental Science Department (LRES Dept.)

Textbook Requirement: Materials provided by instructor.

Students are expected to provide the following minimum equipment for their camping needs:
- Sleeping bag and pad
- Personal toiletries, sunglasses, hat, daypack, water bottle, sunscreen, camera, field notebook and pen, etc.
- Clothing for hot and cold weather (warm hat and coat, shorts and sun hat).
- Good hiking shoes (no open toed shoes). Weather may vary!

PHSX 401 Physics by Inquiry I (3 cr) (2nd Week)
Class: MTWRF 9:00 am to 5:00 pm
Location: EPS Building, Room 110
Instructor: Dr. Gregory Francis, MSU Physics Department

Textbook Requirement:
Author: McDermott and Shaffer
Title: Physics by Inquiry, Volume 2
Publisher: Wiley
ISBN #: 9780471548706
Text available through MSU Bookstore (888)-247-2546
Where to eat while in Bozeman....

Restaurants in the Historic Downtown Area

14 North-14 N. Church Ave.  Montana Ale Works - 611 E. Main St.
Blackbird – 140 E. Main St.  Naked Noodle - 27 S. Wilson Ave.
Burger Bob’s – 39 W. Main St.  Nova Café – 312 E. Main St.
Cateye Café – 23 N. Tracy Ave.  Open Range- 241 E. Main St.
Copper – 101 E. Main St.  Over the Tapas – 19 S. Willson Ave.
Dave’s Sushi - 115 N. Bozeman Ave.  Pita Pit – 246 E. Main St.
Emerson Grill – 207 W. Olive St.  Plonk – 29 E. Main St.
Fin- 211 E. Main St.  Pour House – 15 N. Rouse Ave.
Francais de Arts – 25 S. Tracy Ave.  Rice- 140 E. Main St.
Fresco Café – 317 E. Mendenhall St.  Seven Sushi – 113 E. Oak St.
Garage – 451 E. Main St.  Starky’s – 24 N. Tracy Ave.
John Bozeman’s Bistro – 125 W. Main St.  Sweet Chili Asian Bistro – 101 E. Main St.
Map Brewing – 510 Manley Rd.  Ted’s Montana Grill – 105 W. Main St.

Restaurants within Walking Distance of Campus

Bridger Brewing Company- 1609 S. 11th Ave.  Pickle Barrel- 809 W. College St.
College Street Café & Grille – 815 W. College St.  Rosa’s Pizza – 123 W. Kagy Blvd.
Jimmy John’s - 1216 West Lincoln Street  Storm Castle Café - 5 Tai Ln
Grocery Stores near MSU Campus

Community Food Co-Op – 908 W. Main St.
Heeb’s East Main Grocery – 544 E. Main St.
Joe’s Parkway Market – 903 W. College St.
Rosauers – W. Main St. across from Gallatin Mall
Safeway - 901 W. Main St.
Town & Country Foods – S. 11th & Lincoln St.