Join us for SUMMER SESSION 2020

at Flathead Lake Biological Station

Course Offerings

Jun 22-Jul 3 Conservation Ecology

Sensor Design, Fabrication and Deployment

Jun 22-Jul 17 Field Ecology

Seminars in Ecology and Resource Management

Jul 6-Jul 31 Field Studies in the Evolution of Animal Behavior
Jul 6-Jul 17 Landscape Ecology

Aquatic Microbial Ecology

Jul 20-Jul 31 Alpine Ecology

Stream Ecology

Remote Sensing for Freshwater Ecology

Aug 3-Aug 14 Forest and Fire Ecology

Lake Ecology

Independent Study Animal Behavior



About Our Program. The FLBS summer academic program emphasizes experiential learning through direct observation of biota and ecological processes in the field and through hands-on activities using FLBS' advanced research instrumentation and facilities located on the east shore of Flathead Lake. Courses involve field trips throughout the Flathead watershed, including Glacier National Park and most courses include overnight camping. Experience sweeping vistas and traverse spectacular terrain while exploring pristine alpine wilderness, crystal-clear mountain lakes, streams, and rivers—all benefits of an academic adventure and scholarly fun in the "Crown of the Continent" in Northwest Montana.

A Legacy of Ecological Education. The first FLBS field course was offered in 1899 distinguishing FLBS as one of the oldest biological stations in the United States. Courses and faculty have changed over the years, but our commitment to high-quality education remains consistent with founder

Dr. Morton J. Elrod's vision of sharing knowledge through field experience.

On the Shores of Flathead Lake. The Station is located on the east shore of Flathead Lake, ~85 miles north of Missoula, MT, USA. In this pristine setting, you are one of about 40 students living in cabins and will meet a diverse group of people. FLBS is a year-round facility with research, education and support staff of about 35 people plus grads and interns, and a steady flow of visiting investigators from across the U.S. and around the globe.

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Flathead Lake Biological Station, U of Montana, 32125 Bio Station Lane, Polson MT 59860-6815 USA voice 406.872.4515 – email summersession@flbs.umt.edu – @flbsum - instagram.com/umflbs/ - website flbs.umt.edu



Summer Courses at Flathead Lake Biological Station

Courses carry undergraduate semester credits at the 300 or 400 levels and graduate credit at the 400 level. Taking a full load of 12–13 credits over the 8-week session is a great way to accelerate fulfilling graduation requirements. Formal admission to the University of Montana (UM) is not required. Official OR unofficial transcripts and a medical history form are required for UM and non-UM students. International applicants should review international application information for additional forms and fees at https://flbs.umt.edu/apps/education/ss international.aspx. International students may attend under a J-1 exchange visitor visa.

Credits earned at FLBS are transferable to UM degree plans in Wildlife, EVST, Field Ecology and Biological Sciences and also to degree programs at most colleges and universities. Students easily transfer credits once grades are recorded using the National Student Clearinghouse at https://studentclearinghouse.org/.

How to Apply

Apply online at https://flbs.umt.edu/apps/education.

- 1. Use the website to:
 - Create an application account.
 - Enter personal information, course selections, and housing preferences.
 - · Complete online acknowledgement forms.
 - U.S. students attach unofficial or official transcript(s).
 - International students attach unofficial or official transcript(s) plus English Proficiency Form.
 - Pay a \$50 nonrefundable application fee by credit card online.
- 2. **EARN A \$100 EARLY BIRD DISCOUNT** by submitting your application no later than **JANUARY 13, 2020.** Applications will not be accepted after May 4, 2020.

Summer Session Acceptance

Submitted online applications (Steps 1 through 6 completed) will be reviewed in the order received. Applicants will be contacted regarding application acceptance status within two weeks. Upon acceptance, a medical history form is requested and must be submitted to attend. Early application is important; classes often fill sooner than the application deadline. Courses not meeting minimum enrollment by March 26, 2020 may be cancelled.

Summer Session Payment

Tuition, housing and meal fees are due in full no later than May 22, 2020. If payment is not made by this deadline, your courses are not guaranteed and your first choice courses may be given to waitlist applicants. Fees may be paid online by credit debit card. Discover, Mastercard, and Visa are accepted. For other payment options, call 406.872.4515.

Cancellations must be received <u>in writing</u>; send an email to summersession@flbs.umt.edu no later than Monday, May 4, 2020. Fees paid on or before this deadline will be refunded, excluding the \$50 nonrefundable application fee. Cancellations made after this deadline may result in forfeiture of all fees paid to date.

Important Deadlines!

Contact us at summersession@flbs.umt.edu for any inquiries about deadlines.

~NOV 15 Apply Online Available JAN 13
Early
Application
\$100
Discount

MAR 6 Scholarship Application

MAR 26 Minimum Enrollment Review MAY 4
Last Day to
Apply or
Cancel With
Full Refund

MAY 22
Pay Tuition
& Fees
In Full

JUN 22 First Courses Begin

"To say this summer was an epic adventure

doesn't even begin to do it justice. Here's to

the summer of a lifetime!"

AUG 14

Last Day of

Classes

Financial Aid Options

Enrolled students meeting eligibility requirements and qualifying for support for the following types of financial aid may contact us at summersession@flbs.umt.edu or call 406-871-4515 for additional information.

- Americorps (Segal Americorps Education Award)
- Montana Vocational Rehabilitation
- Veterans Vocational Rehabilitation
- Federal Financial Aid awarded to UM students: any remaining award from preceding academic year may be available to matriculated UM students taking 6 credits or more of FLBS summer courses.
- Consortium Agreement for degree program students at other universities: if your home university's Financial Aid office allows the use of a Consortium Agreement, you may request any available summer financial aid through your home university.

Scholarships

Numerous academic scholarships are available for students applying to the summer academic program. All qualified, enrolled FLBS summer students (UM and non-UM, undergrad and graduate) are eligible to apply and a high percentage of applicants are awarded scholarships. If you meet the criteria, we recommend applying!

Students achieving sophomore class standing at the end of Spring 2020 and graduates students, with a G.P.A. of at least 3.0 in the general area of the life sciences, are invited to apply. Students who demonstrate financial need are also strongly urged to apply.

Completed scholarship applications consist of the following:

- 1. Completed summer session application with official or unofficial college transcripts.
- 2. A statement about why you wish to attend FLBS. Indicate which courses or research work will be undertaken during the summer session. Explain how participation in courses and research at FLBS are relevant to your university curriculum or your plans for future work.
- 3. Two letters of reference from faculty members in support of your request must be emailed to summersession@flbs.umt.edu (or mailed, see 5) by each reference directly to FLBS.
- 4. If applying based on financial need, submit a PDF or print copy of your FAFSA SAR for 2019–2020 or 2020–2021.
- 5. Applicants may email all other scholarship materials to flbs@flbs.umt.edu or send to Scholarship Committee, Flathead Lake Biological Station, University of Montana, 32125 Bio Station Lane, Polson, MT 59860-6815.
- 6. Scholarship applicants must confirm that all scholarship materials have been received. Incomplete applications will not be considered. Confirmation inquiries may be emailed to summersession@flbs.umt.edu.

Scholarships are provided through the generosity of many donors.

Mary Elrod Ferguson Memorial in Honor of Dr. Morton J. Elrod Dr. Jessie Bierman Scholarship Eric and Tootie Myhre Scholarship James Hunter and Colleen Shaw Dion Scholarship Dr. Robert L. Gilbertson Scholarship Matthew Levitan Scholarship Charles "Chuck" Levitan Scholarship Robert Levitan Scholarship Mark Levitan Scholarship
Sara Spero Levitan Scholarship
Richard and Jane Solberg Scholarship
James J. Elser Scholarship
James and Wanda Hollensteiner Scholarship
Jack and Suzi Hanna Scholarship
John and Rosanne Elser Scholarship
Dr. Pamela Hallock Muller and Dr. Robert G. Muller
Field Research Scholarship



Summer 2020 Course Offerings - Four Week Courses

To participate in FLBS courses marked •••, you must be in good physical condition, able to hike up to 10+ miles a day in strenuous conditions at altitude, and properly equipped for a great deal of hiking!

biology, chemistry, and mathematics or equivalents; or consent of instructor. The course engages major concepts and approaches in modern ecology via immersive field experiences, hands-on sampling, and project-based learning in both aquatic and terrestrial habitats. Topics range from physiological and behavioral ecology to population and community ecology to ecosystem ecology and touches on themes of disturbance, invasive species, and climate change. The course will build students' natural history knowledge of the biota of the Rocky Mountain region while directly engaging them in active research projects of the instructors. Ecological phenomena will be examined in real time and real life. All-day and overnight trips will be conducted throughout the course, taking students into a range of aquatic and terrestrial environments near the Biological Station and the adjacent mountain areas including Glacier National Park. Students will conduct directed measurements connected to ongoing research projects of the faculty, developing technical skills as well as skills in scientific analysis and interpretation in written and oral form. *Instructors – Dr. James Elser, FLBS-U of Montana* (flbs.umt.edu/urls/people) and *Dr. Diana Six, U of Montana* (cfc.umt.edu/personnel/details.php?ID=1140)

SEMINARS IN ECOLOGY & RESOURCE MANAGEMENT, BIOL 492, June 22–July 17; 1 Credit (CR/NCR) This course may be taken with other courses in the first 4 weeks of summer sesssion. Seminars, including presentations and discussions, focus on local environmental issues and problems. *Instructor – Dr. Gordon Luikart, FLBS–U of Montana* (flbs.umt.edu/urls/peo)

FIELD STUDIES IN THE EVOLUTION OF ANIMAL BEHAVIOR, BIOB 491, July 6–31 1, M–Th, Full Day; F, Half Day; 5 Credits Prerequisites: One semester of college-level biology and an ecology course or consent of instructor. The course is designed to prepare biology majors for graduate studies in evolutionary behavioral ecology. The course also is open to advanced students in other nonlife science or nonscience majors if they have particular interest in this field. The course will provide students with advanced understanding of the principles and methods of animal behavior and evolutionary behavioral ecology research. Emphasis will be on the field study and complementary field-supportive lab studies, of the sexual and social strategies of diverse terrestrial species. It stresses concepts of behavioral evolution and sober, but awesomely fun, evolutionary adaptationist hypothesis formulation and challenging quantitative testing. An optional 2-credit course BIOE 490 for Undergrads or BIOB 596 for Grads: Independent Study in the Evolution of Animal Behavior, August 3-14 is a followup extension of the main course that entails two additional weeks of supervised independent study. Includes field work and on the spot discussions. *Instructor – Dr. Paul Watson, U of New Mexico* (biology.unm.edu/pwatson/pjw_cv.htm).

Summer 2020 Course Offerings - Two Week Courses

CONSERVATION ECOLOGY, BIOE 440, June 22–July 3, M–F, Full Day, 3 Credits Prerequisites: One semester of college-level biology and an ecology course or consent of instructor. This course will emphasize application of basic biological research to problems in conservation and management with a focus on science, human dimensions, and policy interface in three main disciplines/areas in conservation biology: Ecology, Evolution, and Human Dimension. Primary course themes are: effects of introduced species on biodiversity, population abundance and connectivity, units of conservation and the Endangered Species Act, and general organismal field ecology. Themes will be applied to case studies chosen to illustrate general principles and important issues in conservation and to facilitate discussions with professional field and conservation biologists. We will meet with professionals from government or nongovernment organizations providing a special opportunity to interactively learn by working side by side with conservation biologists, researchers, and natural resource managers from USGS, Montana FWP, US Forest Service, and the National Park Service. *Instructor – Dr. Gordon Luikart, FLBS-U of Montana* (flbs.umt.edu/urls/people)

SENSOR DESIGN, FABRICATION AND DEPLOYMENT, BIOB 491, June 22–July 3, M–F, Full Day, 3 Credits Prerequisites: Two semesters of undergraduate course work in a science, technology or engineering major or consent of instructor. This course is designed for engineering or ecology students to learn about environmental sensors and sensor networks. Students will design, manufacture, and deploy instrumentation/wireless and network communications related to terrestrial and aquatic ecology. Data collected from sensors will be used to answer specific ecological/environmental questions. Focus is placed on cost-effective fieldable sensors for analytes including pH, O2, CO2, nutrients, temperature, light levels, accelerations, GPS, and more. Students will learn about manufacturing methods in the FLBS Sensorspace facility/lab. This cutting -edge facility enables scientists and engineers to design and manufacture their own environmental sensor networks. Students will be introduced to key embedded systems concepts for field-deployed electronics: power systems, microcontrollers, I/O, and various communication technologies to enable their cost-effective inclusion of data logging and networking modules in their deployed sensor systems. *Instructor – Dr. Cody Youngbull, FLBS-U of Montana* (fibs.umt.edu/urls/people)

● ■ LANDSCAPE ECOLOGY, BIOE 451, July 6–17, M–F, Full Day, 3 Credits Prerequisites: One year of college-level biology, chemistry, and mathematics, and an ecology course or consent of instructor. Introduction to the physical and ecological processes shaping landscapes, how these biological and physical processes interact, and how they are responding to global change. We will examine how plants and animals are distributed across landscapes, how the physical template of the environment shapes species distributions and how biotic feedbacks can influence the physical environment. Processes of pattern formation in the environment such as disturbance from fire and how landscape pattern can affect both physical and biological processes will be

Summer 2020 Course Offerings - Two Week Courses (Continued)

examined. Field trips will underscore concepts and allow data gathering and interpretation by students. Students are introduced to geospatial technologies such as Geographic Information Systems (GIS) and the use of R, a data analysis and visualization platform, which has become the standard in the biological and earth sciences. Students will analyze and interpret data through analyses and written presentations. *Instructor – Dr. Solomon Dobrowski, U of Montana* (cfc.umt.edu/personnel/details.php?ID=1110)

AQUATIC MICROBIAL ECOLOGY, BIOE 400, July 6–17, M–F, Full Day, 3 Credits Prerequisites: One year of college-level biology, chemistry, and mathematics or consent of instructor. The course provides a conceptual foundation and hands-on field and laboratory training in modern methods in aquatic microbial ecology. Lectures, laboratories, field trips, and in-class discussions will be used to explore topics such as physiology and metabolism of aquatic microbes; methods and tools for assessing microbial diversity, biomass, and growth; and the role of microbes in bioelemental cycles. Students will gain hands-on experience with both cultivation-based approaches and cultivation-independent methods for studying environmental microorganisms. The heavy field-based emphasis of the course is intended to provide an experiential learning environment. *Instructor – Dr. Matthew Church, FLBS-U of Montana* (flbs.umt.edu/urls/people)

Delta ALPINE ECOLOGY, BIOE 416, July 20–July 31, M–F, Full Day, 3 Credits Prerequisites: One semester of college-level biology and an ecology course or consent of instructor. Exploration of the distribution, abundance, and biotic interactions of plants and animals and their unique ecophysiological adaptations to life in the rigorous environments of high mountains above the timberline, with emphasis on the Crown of the Continent area. Students learn about the distribution of plants and animals and study the processes and interactions that are the foundation to ecology in alpine environments. Emphasis is placed on the processes that organize communities including drivers of global climate, and the complex interrelationships of biotic and abiotic interactions, including natural and human components as modifiers of system dynamics, and how those processes affect alpine systems. The class is organized around field trips and data intensive class projects that underscore major concepts and allow training in data collection, analysis, writing a scientific paper, presentation and interpretation by students. *Instructor − Dr. Wendy Ridenour, U of Montana Western* (w.umwestern.edu/faculty/wendy-ridenour-ph-d/)

STREAM ECOLOGY, BIOE 439, July 20–July 31, M–F, Full Day, 3 Credits Prerequisites: One year of college-level biology, chemistry, and mathematics, and an ecology course or consent of instructor. Stream Ecology is the study of physical, chemical and biological processes in streams. F.-A. Forel coined limnology as the "oceanography of lakes." Here we will do the same for streams and rivers by studying the ecology of streams rather than simply ecology in streams. This goal requires that students integrate across scientific disciplines to learn principles, concepts and methods of stream ecology in field, lecture, labora tory, and discussion settings. Daily participation, examinations, and written and oral reports of independent or group studies as directed by the professor are required. *Instructor – Dr. Robert Hall, FLBS-U of Montana* (flbs.umt.edu/urls/people)

REMOTE SENSING FOR FRESHWATER ECOLOGY, GPHY 474, July 20–July 31, M–F, Full Day, 3 Credits Prerequisites: Coursework in GIS (FORS 250 Intro to GIS for Forest Management or GPHY 284 Intro to GIS and Cartography at UM) or equivalents/consent of instructors. Knowledge of remote sensing is preferred, not required. This course will introduce students to field-based methods of close range remote sensing in freshwater ecosystems. Students will gain knowledge of basic spatial analysis through GIS and remote sensing techniques. Students will learn basic application of UAVs and Acoustic Doppler Profilers, two remote sensing instruments of fast growing interest in ecological research and application. Students will learn about essentials to operate UAVs and ADPs, initial post processing of data products and integrating these data into ecological research and application. *Instructors – Dr. Michael Döring, ZHAW* (www.zhaw.ch/en/about-us/person/doei/); *Diane Whited, FLBS-U of Montana* (flbs.umt.edu/urls/people)

LAKE ECOLOGY, BIOE 453, August 3–14, M–F, Full Day, 3 Credits Prerequisites: One year of college-level biology, chemistry, and mathematics, and an ecology course or consent of instructor. This course examines physical, chemical, and biological characteristics of lake ecosystems; also how physical processes—circulation and stratification, nutrient loading and cycling, primary and secondary production and food web interactions, and the role of atmospheric and land use/watershed—affect water quality. This course focuses on functional relationships and productivity of plant and animal assemblages in lakes as regulated by physical, chemical and biotic processes. Fundamental concepts of ecology as they relate to the aquatic environment are emphasized. Limnological principles are presented within the context of regional and landscape spatial scales. Students learn basic and contemporary methods of study in field settings potentially including Flathead Lake, glacial lakes of Glacier National Park and Swan Valley, and nutrient rich lakes. Emphasis is directed toward experiential learning and obtaining hands-on examination and characterization of lakes that will serve the student well throughout their career. *Instructor – Dr. Shawn Devlin, FLBS-U of Montana* (flbs.umt.edu/urls/people)

●●FOREST AND FIRE ECOLOGY, BIOE 458, August 3–14, M–F, Full Day, 3 Credits Prerequisites: Consent of instructor. Introduction to aspects of population, community, landscape and ecosystem ecology, including the interactive biophysical attributes and processes of forest ecosystems. Students observe and learn about plant distributions and plant community structure, including principles of plant ecology, ecophysiology, and ecological disturbances, especially wildfire. Energy and materials transfer and feedbacks are used to describe complex interrelationships driving the dynamics of these systems, including both natural and human components as modifiers of systems dynamics. Students learn how data are collected to maximize information used to answer scientific questions. Field trips and field laboratory exercises are complemented with quantitative analysis of student-collected data, including tree demographic analysis, community composition and structural change, and analysis of net primary productivity and forest carbon stocks. *Instructor – Dr. Andrew Larson, U of Montana* (cfc.umt.edu/personnel/details.php?ID=1710)

Summer 2020 Course Offerings Independent Study 1 to 8 Credits

ADVANCED UNDERGRADUATE RESEARCH, BIOE 490, 3–6 Credits (CR/NCR) Independent research experience in field ecology associated generally with the various research projects at FLBS. Projects are mentored by permanent and visiting FLBS faculty. Send us a short outline of research work you would like to undertake.

UNDERGRADUATE THESIS, BIOB 499, 1–6 Credits (CR/NCR) Prerequisite: Senior standing and consent of instructor. Objective is preparation of a thesis/manuscript based on undergrad research in field ecology for presentation and/or publication. Student must give an oral presentation at the Biological Station. Student provides short outline of proposed research work.

RESEARCH IN ECOLOGY, BIOB 596, 1–8 Credits (CR/NCR) Open only to non-UM graduate students. The purpose of this independent research is to solve a specific ecological problem unrelated to thesis or dissertation as identified and examined by the student under mentorship of a Biological Station professor. Independent research includes design, analysis and reporting of ecological data. Student provides outline of proposed research work.

Fees

Course fees for residents and nonresidents are \$530 per credit, which includes a credit recording fee assessed by the University of Montana School of Extended and Lifelong Learning. Total fees are calculated based on the number of credits you elect to take (Table A) plus the housing and meal plan (Table B) for the number of weeks you attend. Students who complete their application and pay the \$50 application fee on or before Monday, January 13, 2020, receive a \$100 Early Application Discount.. This discount is applied to housing fees. **Health insurance is not included in fees.** All summer session students are required to carry health insurance valid in Montana for emergency and routine healthcare. Medical facilities are available in the nearby towns of Polson, Bigfork, and Kalispell.

Housing and Food Service

Living on the Biological Station grounds is required to allow full-time interaction between students, instructors and the world-class research program here. There are 30 double occupancy (12' x 14') cabins. All cabins are heated and furnished with lights, electricity, two twin-size beds, chairs, desks, and closets. Restroom and shower facilities are located near the cabins. The G. W. Prescott Dining Hall has indoor or outdoor dining overlooking Flathead Lake. Housing and dietary preferences are selected when you apply.

Table A. Course Fees							
Credits	Tuition	Credits	Tuition				
1	\$530	8	\$4,240				
3	\$1,590	9	\$4,770				
4	\$2,120	10	\$5,300				
5	\$2,650	11	\$5,830				
6	\$3,180	12	\$6,360				
7	\$3,710	13	\$6,890				

Table B. Housing & Meal Plan Fees							
	Housing & Meal Plan Fees						
	Cabin Double	Cabin Single					
2 Weeks	\$540	\$640					
4 Weeks	\$1,080	\$1,280					
6 Weeks	\$1,620	\$1,920					
8 Weeks	\$2,160	\$2,560					

Most applicants opt for cabin double occupancy at \$50 per week. Single cabin occupancy is \$100 per week and contingent on availability. Roommates are assigned by gender and other preferences (e.g., nonsmoker). All housing assignments are final.

Food service includes breakfast, lunch, dinner beginning the first day of course-work through the last day. Monday through Fridays, students are served hot meals for breakfast and dinner. Lunches are packed by each student during breakfast and consist of a variety of options each day. Saturday and Sunday meals are available to those students continuing to attend courses the following week. Breakfast, lunch and dinner items are sacked by kitchen staff for each student with attention to dietary preferences; sacked meals are available by 3 PM each Friday afternoon. Menus for field trips and overnight excursions are planned for the entire group and are selected by the course instructor and kitchen staff to complement the overnight camping experience. Dietary preferences are taken into account for all preplanned meals and menus. Accommodations are made for most reasonable dietary requests although due to facility and resource limitations, not all requests may not be accommodated. Some students opt to supplement food service meals to meet their needs and preferences. Direct housing or food service inquiries to summersession@flbs.umt.edu.

- Check in Sunday afternoon before first scheduled class day. For students arriving on Sunday, June 21, 2020, an evening meal is provided prior to the evening orientation meeting. A Sunday evening meal is <u>not</u> provided for July 5, July 19, or August 2 arrivals prior to the evening orientation meeting. Check-in information is provided in the student's acceptance letter.
- Check out by 11:00 am on the day following your last scheduled class day.
- Pets are not allowed on Station grounds.
- As part of the University of Montana, **FLBS** is a tobacco-free campus.
- Campfires are not allowed on Station grounds.
- Due to the danger of forest fires, personal cooking by students is not allowed.







Other Services

FLBS Bookstore. Textbooks and basic course supplies may be purchased at the FLBS Bookstore. See syllabi for books, supplies and gear needed for coursework. Cash, personal checks, traveler's checks, money orders and credit cards (Discover/ MasterCard/Visa) are accepted in payment for books and supplies.

Banking and Telephone Services. The nearest bank for cashing personal checks and ATM is 15 miles north of the Station in Bigfork. The nearest ATM is at Woods Bay (10.5 mi). Traveler's checks or a debit/credit card offer added convenience for the duration of your stay. Cell phone service is available in this area, but coverage is spotty.

Climate and Dress

Generally, everyone dresses casually. The last week in June can be somewhat chilly and damp. Bring a cold weather jacket and warm clothes (layers recommended). See average area temperatures below.

	June	July	August	June	July	August
Average Highs	71 °F	80 °F	78 °F	22 °C	27 °C	26 °C
Average Lows	44 °F	47 °F	46 °F	7°C	8°C	8°C

Student Mailing Address

You will be assigned a box for mail and messages. Outgoing mail may be sent on normal mailing days; incoming mail,or

shipped items (FEDEX, UPS, USPS) should be addressed using the following address:

Your Name 32111 Bio Station Lane Polson, MT 59860-6815

Computers / Internet Access

Students are required to bring their own laptop to access shared server storage and software, wireless internet, and classroom printers. FLBS will work with students unable to bring a personal laptop due to financial hardship. Microsoft Office is also recommended for optimal collaboration with faculty and peers.

Items-to-Bring Checklist

- Blanket, bedsheets (twin), pillow and pillow case, alarm clock
- Towels and toiletry articles
- Proper clothing plus cap / hat
- Full rain gear is essential plus umbrella

- Mess kit for field trips and weekends (plates, cups, storage

- Cell phone
- See checklists and all logistics info at: https://flbs.umt.edu/apps/education/ss_logistics.aspx







B. C. D & E Cabins

G.W. Prescott Center

Dining Room





Travel Options and Rides to FLBS

Driving—Many students drive their own vehicles to the Biological Station; follow this link for directions to FLBS: https://flbs.umt.edu/newflbs/about-flbs/location-directions/. If you want riders or need a ride, visit the Student Rider Board (available after you apply). Note that FLBS does not mediate issues with rides arranged on the Rider Board. Students without their own vehicle will need to network with other students to get to town and/or for weekend adventures.

Flying—From out of state, the ideal way to reach FLBS for the summer session is to fly into Glacier International Airport (FCA) in Kalispell before 4 pm on Sunday before your coursework begins. You will prearrange ground transportation (taxi/shuttle) to the Biological Station. However, your circumstances may require you to seek alternate arrangements. **We strongly advise flying into Kalispell (Airport: FCA) which is ~42 miles north of FLBS.** Students sometimes find that it is cheaper to fly into Missoula (Airport: MSO) ~85 miles south of FLBS. You may save money on a flight into Missoula, but there are significant additional time and cost expenses involved in getting to FLBS from Missoula (and back).

Train—Amtrak makes a daily stop in Whitefish (~47 miles north of FLBS). The westbound train arrives late pm, while the eastbound arrives early am. However, you must then find your own ground transportation from Whitefish to FLBS. (see transfer options below.)

Ground Transport Options by Arrival/Departure Location

Glacier International Airport (FCA) flyglacier.com/

- 1) Find a driver on the FLBS Rider Board.
- 2) Car Rental iflyglacier.com/travelers/ground-transportation/
- 3) Shuttle/taxi (prearrange pickup with 48-hours or more advance notice)
 - Arrow Shuttle <u>arrowshuttletaxi.com/</u> Prearrange shuttle pickup online or call 406-300-2301. One-way fare is ~\$104 plus \$3 each additional person.
 - Glacier Taxi <u>glaciertaxi.com/</u> Prearrange pickup and get rate information by calling 406-250-3603.
 - Search internet on keywords Kalispell Montana taxi for other services.

Missoula International Airport (MSO) https://flymissoula.com/

- 1) Find a driver on the FLBS Rider Board.
- 2) Car Rental https://flymissoula.com/parking-transportation/rental-car-center/
- 3) Shuttles (Prearrange pickups with 48-hours or more advance notice.)
 - Montana Adventure Shuttle https://www.mtshuttle.com/missoula-airport-shuttle call for quote 406-493-2345 (one-way~\$152)
- 4) Greyhound Bus There is only 1 bus daily to Polson from where you will prearrange a taxi to take you to the Biological Station. Plan for an additional overnight stay in Missoula plus meals costs. *One-way costs are estimated*) as follows:
 - Taxi from airport to Missoula Greyhound terminal or hotel: ~\$20
 - Overnight stay in Missoula and meals to make bus schedule connections: ~\$150
 - Bus ticket Missoula to Polson via Greyhound https://locations.greyhound.com/bus-stations/us/mt/missoula/bus-station-760364 or call 406-549-2339: ~\$25 one-way
 - Prearranged taxi from Polson to FLBS, search internet using keywords Polson Montana taxi service:~\$36

Whitefish Amtrak Train Depot (prearrange with 48-hours or more advance notice)

- 1) Car rental at Amtrak Station (Hertz)
- 2) Prearrange shuttle pickup with Arrow Shuttle (see above): \$126 plus \$3 each additional person.
- 3) Prearrange shuttle with Glacier Taxi (see above).

GET STARTED NOW TO GUARANTEE A SPOT IN YOUR FIRST CHOICE CLASSES! APPLY ONLINE AT:

flbs.umt.edu/apps/education

DON'T WAIT...Classes fill early! APPLY BY January 13, 2020 for a \$100 discount!



