# College of Life Sciences Field Research Safety Plan

Field research conducted away from campus has a variety of safety concerns. Some of the same policies that apply to laboratory work may be applicable to field research. Additional safety training may be needed to address specific risks associated with field work. A risk assessment will be performed by the PI and reviewed by the college safety officer and/or Risk Management for possible additional awareness and training before field work begins.

This form should be used by the Principal Investigator (PI) or Project Lead, to assist with developing a fieldwork safety plan. The completed safety plan should be shared with all members of the field research team and kept on file on with the department secretary prior to any fieldwork travel. This form should be completed for class field trips and research projects.

Insure that all permits required by regulatory entities have been obtained before beginning field work. Research involving vertebrate animals requires prior approval from IACUC. Research involving biosafety level 2 or higher microorganisms in the field requires IBC approval.

Field work should be done in teams of at least two people. Note that BYU policy prohibits a non-related male and female undergraduates to be working alone in the field. Any injuries sustained in the field should be reported to your supervisor, the college safety officer (801-422-6875), and/or BYU Risk Management as soon as possible. If the injury is serious (amputation, overnight hospital stay, fractures, of fatality) notify BYU Police (801-422-2222) as soon as possible.

## Overview

Because field work is so diverse it is the responsibility of the PI or Project Lead to perform a risk assessment of the geographical area where the field work will be conducted to identify possible hazards and train students on how to mitigate these hazards before leaving for projects.

All departments in the College of Life Sciences are required to comply with all university travel policies and complete all paperwork before any travel takes place for both academic and research purposes.

## Travel Policies

Please refer to university policies for full information on [travel policies](https://policy.byu.edu/view/index.php?p=134). Below is a summary of the policies that most commonly apply to travel by College of Life Sciences undergraduate and graduate students.

### Undergraduate Student Travel Policy

All travel that requires an overnight stay or use of commercial transportation requires an approved travel plan submitted in advance of each trip.

Same-Day Travel is authorized travel initiated from Provo and completed back to Provo during the same calendar day. Full-time university personnel are encouraged, but not required to accompany student in same-day travel when the travel is limited to under 300 miles. If travel is over 300 miles than a full-time personnel is required to accompany the student unless a student travel authorization is approved (see below).

Non-Same-Day Travel that is initiated and completed during two or more calendar days. Student travel is considered to be “**required**” if the travel is necessary for the student to fulfill the requisites of a course or to participate in an official activity, and the trip is organized by the university and involves the supervision of university faculty or personnel.

All approved same-day travel in excess of 300 miles and all non-same-day student travel requires full-time faculty, administrative, or staff personnel to supervise travel plans and to accompany the students. These student group advisors are responsible for the implementation of this policy for such travel. Exceptions allowing for supervision and accompaniment by part-time faculty or personnel must be authorized by the appropriate dean/director. In providing for such exceptions, the dean/director should approve only those part-time faculty or personnel who are sufficiently mature to responsibly discharge their duties. Graduate students fall under the category of part-time personnel.

### Field Trip Insurance

Required for all students and guests of the university for education related travel actives that are scheduled, supervised, and sponsored by BYU. [Click here](https://risk.byu.edu/apps/service/index.php?service=44) to fill out the form for Field Trip insurance Request (<https://risk.byu.edu/apps/service/index.php?service=44)>

Not to be used for research projects unless the travel is for a mentored research course where the student is not an employee for the project.

### Student Travel Authorization

To be completed by students travelling without a university full-time faulty or staff employee. The form is completed and authorized before travel takes place. It should also be included when submitting receipts after the trip. [Click here](https://purchasing.byu.edu/sites/default/files/Student%20Travel%20Authorization_2.pdf) to fill out the Student Travel Authorization Form.

Undergraduate students travelling without the accompaniment of full-time faculty or staff and the trip is over 300 miles round trip or is overnight must obtain additional approvals and submit additional forms.

The full policy for student travel authorization can be found at <https://purchasing.byu.edu/forms/student-travel-auth>

## FIELD TRIP / PROJECT RISK ASSESSMENT

Field work is diverse so there is not one list of trainings that are required before leaving for the field. A risk assessment for the geographical region that you will be working in as well as all equipment that will be used while in the field is required in advanced to any travel. The following table is to serve as a guide for doing a risk assessment. This table is not comprehensive and should be modified to fit the project needs. The risk assessment is to be completed by PI or project lead for each unique area or project type.

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| --- | --- | --- | --- | --- | --- |
|  | Van Driving*Requires Certification – Risk Management* |  | ATV Use*Requires Certification* |  | Trailers*Requires Training* |
|  | Firearms*Requires Certification* |  | Snowmobiles*Requires Certification* |  | Boating*Requires Training* |
|  | Diving/Snorkeling*Requires Certification* |  | Climbing / Rappelling*Requires Training* |  | Working at Heights *Requires Training* |
|  | Hiking |  | High Altitude |  | Extreme Heat/Cold*Requires Training* |
|  | Camping |  | Heavy Lifting (more than 25 lbs) *Requires Training* |  | Work at Night |
|  | Standing Long Periods |  | First Aid / CPR*Requires Certification* |  | Bloodborne Pathogens*Requires Training – College Safety Officer* |
|  | Regulatory Permits |  | Controlled Substances*Requires Training* |  | Caves / Underground Work |
|  | Chainsaws*Requires Training* |  |  |  |  |
|  | Wild Animal Safety*Requires Training* |  | Other: (Please specify) |

After risks have been identified a table should be created to show the identified risks and how they will be controlled or mitigated. If a risk requires certification the date that the person received the certification should be documented. Example tables and checklists can found in the field safety manual (appendix A).

Risk Assessments should be reviewed annually or when the project needs or location changes.

## Training Requirements

Most trainings listed in the proceeding table that require training or certification can be completed on Y-train (ytrain.byu.edu).

If you have questions on training requirements for any identified activity based on your specific risk assessment, contact the college safety officer at (801) 422-6875 for more information or to arrange training.

Any identified risks must be addressed in a field safety manual (appendix A). All faculty, staff, or students participating in the project must read the manual and document that they have read the information provided for risk mitigation. If an identified risk requires specific training documentation (as listed in the proceeding table) the training records should identify when certification or training was received.

### Off-Highway vehicle (OHV)

OHV use is regulated by Utah Code Title 41 Chapter 22. OHV’s include all-terrain vehicles (ATV) and snowmobiles. Requirements and regulations for these are discussed separately. Only university owned OHVs should be used for university business. Prior approval from Risk Management but be obtained for any use of privately owned OHVs for university business. OHVs owned by state or federal agencies may be used without prior permission from Risk Management. All requirements set by state or federal agencies owning the OHVs must be observed by university personnel.

### All-Terrain Vehicles (ATVs)

BYU requires all users of ATVs for university business to have completed the ATV training module (available on Y-train in the Life Sciences catalog) as well as hands on training by a qualified instructor to ensure that riders are familiar with the limitations and hazards of driving an ATV. Modifications to an ATV may alter its performance and increase the potential for an accident. Any modifications to an ATV should only be performed after obtaining approval from the manufacturer and Risk Management.

### Snowmobile

BYU and the College of Life Sciences requires all users of snowmobiles for university business to have completed an authorized class (availability varies, contact College Safety Officer for information) as well as hands on training by a qualified instructor to ensure that riders are familiar with the limitations and hazards of driving a snowmobile.

### Boats and Personal Watercraft

The operation of any type of watercraft requires the use of a certified life vest by all occupants at all times on the water. This includes canoes, rafts, boats, JetSki’s etc. If using a motorized vessel, the operator should be trained on its use.

The operator of the watercraft will obey all markings or instructions by any official waterway marker including all posted speed limits or restrictions. Good marine practices should be observed at all times.

All watercraft must be in good and serviceable condition. Watercraft should be inspected before use for any broken, deformed, or weakened areas. Webbings or straps should also be inspected.

Capacity limits for all watercraft must be observed. Refer to the manufacturer’s operating manual for occupancy limits.

No anchored objects can be placed in the water in the state of Utah without written authorization by the operating agency. If working outside of Utah check with local regulations.

Users should be familiar with all state or local regulations. Refer to the Utah State Boating Act Utah Title 73, Chapter 18.

### Van Driving

A van driving card is required for any faculty, staff, or student who will drive any van or 7-12 passenger vehicle. The van driving training program is available on ytrain. After completing the online course, show your van driving certificate card and a valid driver’s license to your supervisor who will then sign the card.

### Trailers

Any faculty, staff, or student who will haul a trailer for university business must meet all federal and state regulations for trailers. Utah requires that all trailers are registered annually and display a registration sticker on the trailer’s license plate. Tail, brake, and license plate lights are required. Turn signals and 2 or more red reflectors are also required. A trailer over 80 inches must have clearance lights. If any lights are not functioning properly the trailer cannot be used and must be tagged out until repaired.

Every towed vehicle must be coupled by means of a safety chain, cable, or equivalent device, in addition to the regular trailer hitch or coupling. The safety chain or cable shall be securely connected with the chassis of the towing vehicle, the towed vehicle, and the drawbar. The safety chain or cable shall be of sufficient material and strength to prevent the 2nd vehicle from becoming separated and shall have no more slack than is necessary for proper turning. The safety chain or cable shall be attached to the trailer drawbar so as to prevent it from dropping to the ground, and to assure the towed vehicle follows in the course of the towing vehicle in the case the vehicles become separated.

All posted speed limit laws must be followed. Usually speed limits are the same as passenger cars unless otherwise posted. Vehicles drawing trailers are prohibited from operating in the left-most general purpose lane on highways with more than 3 lanes traveling the same direction.

### Firearms

Firearm use for official university business is limited. Anyone who uses a firearm must have proper certification on safe handling of the weapon before being allowed to use a firearm in the field.

### Diving/Snorkeling

Any faculty, staff, or student who will be using scuba diving equipment for university business must have completed a certified scuba diving training course. All equipment must meet industry standards.

Any faculty, staff, or student who will be using snorkeling equipment for university business must follow all safety recommendations including:

* Stay close to the shore
* Be aware of your surroundings
* Retain your energy to avoid exhaustion
* Must wear an approved life vest at all times

Neither diving or snorkeling can be done alone. You must have a buddy with you at all times.

### Climbing/Rappelling

Any faculty, staff, or student who will be required to use ropes for climbing or rappelling for university business must meet all industry standard safety regulations in equipment. Climbing and rappelling should never be done alone. All equipment must be inspected for wear and damage before each trip. Any damaged or worn item must be replaced. Climbing experience should be documented before any field work.

## Appendix A – Field Safety Manual

## Trip Overview

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| **Department:** | **Faculty PI:** |
| **Fieldwork Leader:** (If different from Faculty PI.) |
| **Phone Number:** | **E-mail Address:** |
| **Departure Date:** | **Return Date:** |
| **Location of Fieldwork:** *Country/City or GPS Coordinates* |
| **Nearest City:**(Name, Distance from Site) |
| **Nearest Hospital:**(Name, Distance from Site) |
| **Travel/Transportation:** (Please list all forms of travel to and from site including if university, personal, or off-road vehicles will be used) |
| **University Contact:** (Must not be at field site)Name: Phone: | **Local (Field) Contact:**Name: Phone: |

## Field Research / Academic Field Trip Summary

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| **Field Research Summary:** (Please include a brief description of the field work. *Include a separate sheet if necessary*.) |

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| **Emergency Procedures:** (Please include detailed plans for field location, including evacuation and emergency communication. *Include a separate sheet if necessary.* |
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## Risk Assessment Tables

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| **Risk Assessment:** Please list identified risks associated with the activity or the physical environment (e.g., extreme heat or cold, wild animals, endemic diseases, firearms, violence). List appropriate measures to be taken to reduce the risks. *Include a separate sheet if necessary*. |
| Identified Risk | Control of Risk |
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| **Required Training/Certification List**: List all individuals on this plan and the required certification and expiration date of all trainings that apply. Attach copies of training certification, if applicable. *Include a separate sheet if necessary.* |
| Name | Type of Training | Expiration |
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## FIELD TRIP / PROJECT TRAINING CHECKLIST

This checklist contains suggested topics to be covered during site-specific training. It is the responsibility of the PI to ensure employees have a thorough understanding of the topics that are applicable to the fieldwork.

**Chemical**

* Procedures for safe handling and use of chemicals.
* Physical and health hazards of chemicals used in the field including signs and symptoms associated with over-exposures.
* How to respond to an exposure, including first aid, emergency response, and reporting.
* Where each Safety Data Sheet (SDS) can be found (copies of all SDSs for chemicals used in the field should be available on site).
* How and where to dispose of or transport chemicals according to Risk Management & Safety protocols.

**Animal / Plant Safety**

* Signs and symptoms associated with exposures to animal risks in the field.
* How to respond to animal bites, including first aid, reporting, and emergency response.
* How to protect against any predators or large animals in field area.
* Identification of any poisonous plants or animals in the area.
	+ Signs and symptoms associated with exposures

**Personal Protective Equipment**

* How to protect yourself from hazardous materials and/or injury from equipment or machines (e.g., appropriate minimum clothing requirements, required PPE).
* Where personal protective clothing and equipment (e.g., goggles, masks, gloves, helmets, etc.) are located and how to use them.
* What to do with personal protective equipment after use (when and where to dispose or clean).

**Special Equipment**

* Instructions for use of special equipment or machines in the field such as ATVs, snow machines, firearms, four wheel drive vehicles, etc.

**Procedural**

* How to report injuries or accidents.
* Spill control equipment (chemical or biological) location and how to clean up hazardous materials after a spill.
* Emergency procedures including the location of emergency numbers and equipment.
* Where the first aid kit is located.
* University field trip insurance or travel plan

## FIELD TRIP / PROJECT SAFETY TRAINING DOCUMENTATION

**PARTICIPANT CERTIFICATION**

I hereby acknowledge that I have been instructed in field trip / project rules and risks as outlined by my supervisor including participant responsibilities, vehicular requirements, safety guidelines, and specific rules for field operations. I hereby agree to participate in full accordance with the safety instructions provided. I further agree that I will disclose any medical or other personal needs that may impact my ability to participate in the project and not undertake any specific tasks without appropriate instruction, supervision, and understanding of the potential hazards involved.

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| **Name (Please Print)** | **Signature** | **Emergency Contact Name** | **Emergency Contact Phone** |
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To be completed by the responsible faculty:

I confirm the accuracy of the field trip details and the risks outlined in the assessment above. I certify that I presented the applicable safety and health information to the participants of this field exercise as outlined, and I confirm that all individuals have been trained on applicable university, state, and federal requirements as listed in the project summary and agree to implement the fieldwork plan described.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:­­­ \_\_\_\_\_\_\_\_\_\_\_\_\_