



# Department of Earth Sciences

## Field Safety Policy

### **PREAMBLE**

Students and Faculty take part in two, distinctly different types of fieldwork.

1. Official graduate and undergraduate field courses (e.g., 2250Y, 3350Y, 4450Y, 4451X, 4452Z), plus various weekend and other trips that are tightly-structured and planned. Departmental approval prior to departure is required for these.
2. Research fieldwork usually involves a small number of people, and commonly involves a much less tightly constrained schedule. Fieldwork may take place in areas where potential hazards are much greater. Although research leaders take practical responsibility for these activities, the Chair is nevertheless required to approve the safety preparations made for research fieldwork prior to its commencement.

It is therefore appropriate to develop safety plans for both types of field activity that are tailored specifically to that activity. If there are regular trips with the same people to the same area, the process may be streamlined with a "standing approval", but ultimately it is required that the Department holds records of each off-campus field trip before departure.

### **UNDERGRADUATE, GRADUATE, RESEARCH FIELD TRIPS AND OUTINGS**

#### **Responsibilities of Department Chair**

Ultimately the responsibility of all off-campus field work/outings lies with the Department Chair. [The Field Safety Plan & Itinerary](#) must be submitted to the Safety Officer **two weeks in advance of departure**. The Safety Officer will review the document and recommend its approval by the Department Chair. A list of participants, locations, and dates must be submitted to the Academic Coordinator **two weeks in advance of the departure date**, so that the students can be registered with **Safety Away**. Safety Away is a secure method of holding confidential details of a field trip participant such as their emergency contact person, health insurance, and any medical information that could be important to a doctor administering emergency treatment (e.g. drug sensitivities, allergies, regular medication).

## Responsibilities of Trip Leaders

### *Field Safety Documentation*

Each trip leader (who is in effect, the Field Safety Officer for that particular trip), will submit a [Field Safety Plan & Itinerary](#) that is specific to each field trip. This plan will include the following elements:

- a) Phone numbers for leaders' emergency contact people (contacts are expected to be reachable at this number). All trip leaders must carry the Department phone number to contact in the event of an emergency. This number will be listed on the Field Safety Plan & Itinerary.
- b) An itinerary listing all the dates and locations of all sites to be visited.
- c) Location, address, phone number, and means of access to the hospital nearest to each field site.
- d) If road transportation is not available, another method of transport must be identified and phone numbers for local air and water transportation companies must be provided.
- e) A list of potential hazards specific to the field trip and appropriate safety measures.
- f) Field Safety participant acknowledgement sign-off sheet (see section on Field Briefing below).

**The leader will ensure that all participants have either registered with Safety Away or signed an Acknowledgment and Assumption of Risk (A&AoR) form prior to departure.** The A&AoR forms will be retained by the Department and a copy will be provided to the leader before departure. A list of all pertinent details from Safety Away will also be provided before departure. Failure to submit relevant A&AoR documents may result in field trip cancellation.

In the event of an accident, the leader must complete an [Accident/Incident Report Form](#) and email it to the Health & Safety Coordinator as soon as possible. This form must be submitted to Western's Occupational Health & Safety office within 24 hours of the incident.

### *Safety Briefing*

At, or prior to the first stop on the trip, the leader will give a verbal Safety Briefing, and will require each participant to sign a sheet confirming that they have received the Safety Briefing and understand the potential safety risks. These pages will be submitted to the office after the group returns if completed off campus. **This briefing is MANDATORY for ALL field trip participants.** Each participant will be provided with a copy of this section of the Field Safety Plan & Itinerary at this meeting. The Trip Leader will make it clear that any member of the field trip group who is unable to participate fully in class or research activities due to the effects of excessive alcohol consumption or use of other drugs may be refused permission to participate in that day(s) activities. Similarly, anyone who causes damage to property (e.g. vehicles, hotel) as a result of intoxication will be held fully responsible for the cost of repairing such damage. They will also be reported to the Department Chair who may impose additional disciplinary measures.

### *Equipment*

Before departure, the leader will check that safety equipment (e.g. hard hats, safety goggles) issued to participants is in a serviceable condition. A first aid kit must be carried by each field party.

## *Training*

All trip leaders must have First Aid certification.

Failure to comply with any of these items is a breach of the Department's safety procedures.

## **Responsibilities of Teaching Assistants**

Teaching Assistants have a position of considerable responsibility, commonly being expected to drive vehicles, assist with instruction, and act as exemplary role models for undergraduates. TAs are expected to set a good example for undergraduates, including showing a responsible attitude to alcohol, being considerate of others, and demonstrating a strong work ethic. All TAs are also expected to comply with the conditions outlined under 'Responsibilities of Students' below.

## **Responsibilities of Students**

Although trip leaders take every reasonable safety precaution, it is ultimately the obligation of the individual to behave in a responsible manner in order to ensure the safety of themselves and other participants. Complacency, inattention, lack of preparation and/or training will all increase the risk of accidents. Specific responsibilities include:

- a) Review the Departmental Field Safety Policy and understand the rights and responsibilities of each stakeholder on the field trip.
- b) Pay attention to, and act upon, the advice given in the pre-trip Safety Briefing.
- c) Use all recommended safety equipment and comply with all safety instructions
- d) Be able to participate fully in class activities in the field or at meetings. Any participant not able to do so due to the effects of excessive alcohol consumption or use of other drugs may be refused permission to participate in that day(s) activities. They will also be reported to the Department Chair who may impose additional disciplinary measures.
- e) Be considerate towards other participants and property/equipment. Anyone who causes damage to property (e.g. vehicles, hotel, campground), or who exhibits inconsiderate behavior (e.g. excessive noise), as a result of intoxication, will be held fully responsible for the cost of repairing damage, or payment of fines imposed by authorities.
- f) All Western Students need to register with "Safety Away", and all other participants, except those listed as leaders on the "Field Safety Plan & Itinerary", need to sign an Acknowledgment and Assumption of Risk Form prior to departure. Include the following in your reply to "Safety Away" and also inform the trip leader (in confidence) of:
  - i. Any critical medical condition (e.g. epilepsy, diabetes, severe allergy)
  - ii. Medication (e.g. Insulin, EpiPen adrenalin injector, etc.) that may affect your health during the trip
  - iii. Any essential information that would be useful to an attending doctor in case of emergency.
- g) Provide your next-of-kin in addition to an emergency contact.
- h) Obtain necessary vaccinations and supplementary health insurance if traveling outside Canada.

Failure to adhere to any of these responsibilities may result in your removal from the trip and loss of course credit. All students have the right to refuse unsafe work, and should be familiar with the [procedures required to do so](#).

### **RESEARCH FIELDWORK**

Research fieldwork may take place in remote areas where a variety of natural hazards may be encountered, and where the availability of, and access to, hospital facilities may be very limited. It is the responsibility of research supervisors (i.e. the professor running the research program and supervising the student(s)), to be aware of any significant hazards likely to be encountered in the field research area, preferably as a result of first-hand experience. If the leader does not have such experience, it is recommended that the supervisor consider hiring a local guide.

The biggest factor in your personal safety is common sense. Research field work may be in rough, with broken terrain, slippery or loose rocks, thick bush, deadfall trees, thorns, etc. to negotiate. Safe travel over this sort of terrain requires constant attention to what is underfoot, in front and above. A moment of inattention can lead to a nasty slip, a sprained ankle, cuts, grazes, or worse. Look where you are putting your feet at all times. If you are not comfortable on a steep slope, don't go any higher - find another way around. If you are frightened, you are even more of a hazard to yourself and your partner. In general, experience will lead to more confidence, and less likelihood of accidents. However, beware of over-confidence!

### **General Precautions**

A number of general precautions and procedures can be specified for any field research:

- a) Never work alone. Your field partner is your best insurance policy.
- b) Know where you are. Have a detailed topographic map with you, and know how to use it. A GPS unit is a nice accessory, but they do not always work, especially in deep ravines or dense forest.
- c) Have a means of communication. A cell phone may work in relatively civilized areas, but cell phones may not work away from main road corridors and towns. A satellite phone might be the best means of emergency communication (be aware that the Global Star system does not work north or south of about 70° latitude). Make sure that everyone in the party knows how to use the satellite phone, and be aware that a satellite phone may not work in a deep ravine or in thick forest.
- d) Ensure that someone knows where you are working. It may be possible to leave a detailed day-by-day itinerary with a designated person at home (spouse/partner; Department Safety Officer), however, fieldwork schedules commonly change depending on weather or other conditions so a definitive schedule may be impractical. It is usually possible to notify someone of your movements on timescales of a few days (e.g. helicopter pilots will know where you were dropped off; campground attendant, or even a phone call to a spouse or partner can provide a starting point in case a search is needed).

### **Specific Precautions**

Each field area will have its own suite of specific hazards, and it is the responsibility of the research supervisor to identify these hazards in the Field Safety Plan & Itinerary document and at the Safety Briefing. The range of potential hazards that may be encountered in the field is large, and could include:

- a) Local diseases (especially in the tropics).
- b) Severe weather hazards, (heatstroke, hypothermia, lightning strike, etc.) and risk of attack by wild animals (bears, snakes, etc.).
- c) Legal risks such as photographing restricted installations such as airports, military bases, power plants, etc. in certain countries.
- d) Crime risks such as theft, kidnapping, car hijacking, etc.; civil insurrection.
- e) Health risks such as unavailability of necessary prescription medications in certain countries.
- f) Poor communications and infrastructure (bad roads, scarce fuel, no telephone service, etc.).

### **Environmental Issues**

Consideration of the following topics may be necessary:

- a) Minimize air pollution and noise nuisance from machinery.
- b) Minimize disturbance to wildlife, plants and aquatic life.
- c) Minimize potential erosion due to excavation or cutting of vegetation.
- d) Protect archaeological sites.
- e) Minimize water pollution arising from camp waste, petroleum products, sewage, etc.

### **Equity Issues**

[Western's Equity & Human Rights Services](#) provides the following comments for the guidance of both students and faculty:

- a) Students are encouraged to review the Code of Student Conduct before participating in field trips. The Code defines the general standard of conduct expected of students and provides examples of sanctions that may be imposed under the Code. The Code of Student Conduct can be found at: <http://www.uwo.ca/univsec/board/code.pdf>
- b) All participants (trip leaders, teaching assistants and students) are reminded that Western's policy on Non-Discrimination and Harassment apply to all members of the University community in their interactions with other members of the University community while on department-related field trips. For more information, please visit the website of Western's Equity & Human Rights Services at [www.uwo.ca/equity](http://www.uwo.ca/equity)
- c) Students who may require need accommodation (e.g. religious or disability-related) are encouraged to contact the leader of the field trip to discuss accommodation options. For more information on the duty to accommodate, please see the website of Western's Equity & Human Rights Services at <http://www.uwo.ca/equity/accommodation/faq.htm>