

Fieldwork Safety



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INTRODUCTION

The University of Ottawa must ensure that its campus community is equipped and empowered to operate in a healthy and safe environment. Researchers and students from many University departments conduct annual off-campus fieldwork activities. These activities – while enriching and valuable experiences – can subject participants to various risks that they would not otherwise encounter.

This guide for fieldwork activities prioritizes the health and safety of participants and serves as a first step in preparing them for risks they may encounter in the field. Thorough planning and preparation are essential to ensuring the health and safety of all participants; this document will outline general health and safety recommendations for individuals to consider before leaving for fieldwork activities.

Participants must read this document in conjunction with applicable University policies and procedures. Note that the provisions set out in this document are general ones: they do not completely describe the recommendations or minimum requirements for all fieldwork activities. Activity leaders must evaluate each fieldwork activity to determine which provisions apply and, if necessary, they must develop and implement additional measures that may not be stated in this document.

The health and safety of fieldwork participants always takes priority over the fieldwork activity itself.

SCOPE

This document is intended for University of Ottawa personnel, including professors, support staff members, graduate students, etc., who conduct fieldwork activities as part of academic programs, research activities, or for other institutionally affiliated purposes.

DEFINITIONS

Within the context of this document, the following definitions apply:

Accident – an unexpected event causing injury, illness or even death (see also *critical injury*), or involving exposure to harmful substances.

Critical injury – an injury of a serious nature that:

- a) places life in jeopardy;
- b) produces unconsciousness;
- c) results in substantial loss of blood;
- d) involves a fracture of a leg, arm, but not a finger or toe;
- e) involves the amputation of a leg, an arm, a hand or a foot, but not a finger or toe;
- f) consists of burns to a major part of the body; or
- g) causes the loss of sight in an eye.

Fieldwork activity – means an organized and authorized research activity or series of educational activities conducted outside the geographical boundaries of the University of Ottawa by faculty members, staff members, students and/or volunteers. Example of locations may include more local

areas, such as Algonquin Park, or more remote areas, such as field locations in other provinces, countries, etc.

Incident (near miss) – means an undesired event resulting in damage to property or to the environment (fire, spill, breakage, etc.) and/or a situation that could have led to an injury, to illness or to property damage.

Supervisor – means a person who has charge of a workplace or authority over a worker or another person. Depending on the workplace relationship, supervisors may include fieldwork organizers, support staff members, principal investigators, etc. The determination as to whether a person is a supervisor depends on whether the person is responsible for a location (for example, a base camp or field station) where the work is performed on a paid or unpaid basis or whether the person provides direction to complete work.

Worker – means any of the following:

- A person who performs work or supplies services for monetary compensation
- A secondary school student who performs work or supplies services for no monetary compensation under a work experience program authorized by the school board that operates the school in which the student is enrolled
- A person who performs work or supplies services for no monetary compensation under a program approved by a college of applied arts and technology, university, private career college or other post-secondary institution
- Such other persons as may be prescribed who perform work or supply services to an employer for no monetary compensation

RESPONSIBILITIES

Supervisors must:

- Evaluate the fieldwork activity, identify actual and potential hazards, and develop and implement additional measures not specified in this document, as required.
- Approve the composition of the fieldwork team. Ensure that participants possess the competencies required to deal with anticipated situations.
- Identify and implement appropriate health, safety and security mitigation and control procedures, including measures that deal with emotional or psychological hazards created in the fieldwork environment.
- Conduct an orientation session for fieldwork participants to cover: the specific purpose of the trip; its challenges; minimum requirements (e.g. vaccinations, additional insurance, etc.); the risks associated with the fieldwork; the precautions implemented during the fieldwork; local laws and customs; and the emergency procedures to follow if and when required.
- Ensure that protective and research equipment are ready and that participants have received related and necessary instruction and training on this equipment (e.g. Wilderness First Aid, Pleasure Craft Operator Card, etc.).
- Ensure that participants use equipment safely and follow procedures and proposed medical precautions.
- Ensure that companies involved in field operations (including airlines, rental agencies, etc.) are credible, reputable and conduct business in a healthy and safe manner.
- Ensure that all participants conducting fieldwork have read and understood this guide.

- Ensure that the fieldwork participants complete and submit the necessary fieldwork forms; for example, informed consent, waivers, fieldwork declaration, etc.
- Inform the department's administration office of the fieldwork activity.
- Ensure that the ratio of participant(s) to supervisor(s) is within recommended guidelines, and that the number of participants arriving at the fieldwork site is equal to the number returning to the University at the conclusion of fieldwork.
- Take responsibility, to the extent reasonable, for the safety of those participating in fieldwork activities for the duration of the trip, including before, during, and after activities listed on the trip schedule.

Workers, students and participants must:

- Behave in a respectful, healthy and safe manner.
- Follow written and verbal instructions issued by supervisors and persons in authority.
- Identify hazards, assess risks, and report incidents and/or concerns to a supervisor.
- If health conditions warrant, seek medical advice prior to participating in fieldwork activities.
- Prior to the start of an activity, notify a supervisor if a participant requires medication or suffers from a medical condition(s) that restricts the individual's ability to undertake certain aspects of fieldwork, or increases their risk if they participate.
- In consultation with the supervisor, complete and submit relevant fieldwork forms, such as informed consent forms, waivers, fieldwork declaration, etc.

Note that for personal safety reasons, children, friends, non-members of the establishment, pets and personnel unrelated to the purpose of the fieldwork should not take part in the fieldwork activity. Supervisors may address exceptions to this rule on a case-by-case basis.

COMPOSITION OF FIELDWORK GROUPS

During fieldwork activities, the ratio of supervisory personnel (including assistants) to students conducting research-related work must be acceptable and sufficient to ensure effective hazard control and mitigation. An acceptable ratio of students-to-persons in supervisory roles depends on the nature of the fieldwork activity, the training of participants, their expertise and experience in the activity, familiarity with hazards inherent to the activity/location, and the maturity of activity participants.

All participants will have reached the age of majority and are expected to conduct themselves in a professional and reasonable manner.

For low-risk routine activities, a maximum ratio of 30 students per staff member may be acceptable; however, the University of Ottawa recommends that at least two persons in supervisory roles be present during fieldwork activities. Fieldwork activities conducted in isolation are strongly discouraged.

UNIVERSITY POLICIES

Fieldwork activities must comply with University of Ottawa policies. The supervisor is responsible for ensuring that participants comply with policies, just as they would while on campus. Members of the University community who conduct fieldwork for research purposes represent the institution

and are expected to conduct themselves accordingly. Some of the policies that could apply to fieldwork include, and are not limited to:

- [Policy 2D – Disciplinary Measures for Reprehensible Acts](#)
- [Policy 58 – Tobacco Use at the University of Ottawa](#)
- [Policy 66 – Violence Prevention](#)
- [Policy 67A – Prevention of Harassment and Discrimination](#)
- [Policy 67B – Prevention Sexual Violence](#)
- [Policy 72 – Environmental Management and Sustainability](#)
- [Policy 77 – Occupational Health and Safety](#)

Local Statutes

Note that other jurisdictions (e.g. cities, provinces, states, countries, etc.) may have different laws, standards and customs. Prior to departure, the fieldwork supervisor must ensure that the fieldwork team is familiar with, understands, and complies with, local requirements at all times.

EMERGENCY SERVICES

During a situation requiring immediate medical, police, or fire response in the field, supervisors must immediately call 911 or the equivalent local emergency number. They must then notify Protection Services (613-562-5499) to initiate other University of Ottawa response measures.

The fieldwork supervisor is responsible for developing emergency procedures specific to the activity prior to departure. The University recommends that these procedures include local contact numbers for emergency agencies (i.e. police, ambulance, park ranger, local consulate etc.). For example, emergency procedures could include what to do in the event that a participant gets lost, an evacuation is ordered, or a participant falls ill or is seriously injured, equipment or documents are lost, the fieldwork needs to be abandoned, a natural disaster or civil unrest occurs, etc.

The international distress signal (S.O.S.) is three (3) short shots, followed by three (3) long shots, followed by another three (3) short shots. Those in distress can use a whistle, light, or other means to issue the signal.

First Aid

The University of Ottawa recommends that supervisors equip each fieldwork activity team with at least one appropriate first aid kit. A basic workplace first aid kit (i.e. Ontario Type 3) will probably not be sufficient for fieldwork activities because it is not equipped to treat injuries and illnesses in remote locations. The University recommends that supervisors augment the Ontario Type 3 first aid kit with reasonable quantities of hazard-specific first aid materials relevant to the fieldwork activities.

The University also recommends that each team include one or more [Wilderness First Aid](#)-certified participants. Wilderness First Aid-certified participants have the knowledge and skills to manage emergencies in remote settings. Because the certification workshop focus on the challenges of providing first aid in remote locations, the facilitators recommend that participants be recently trained in providing standard first aid. The concepts presented resemble those in a standard first-aid course, but also include details on more wilderness-specific topics, such as hypothermia, med-evacuation and wildlife hazards. The University of Ottawa offers Wilderness First Aid workshops to those conducting fieldwork activities. Additional information on upcoming workshops is available online or by contacting the Office of Risk Management at safety@uottawa.ca.

Reporting Procedure

For situations that are not considered urgent, participants should record and report any accidents or incidents (including dangerous events) that occur during their fieldwork. The supervisor must complete an [accident/incident report](#) whenever a person is, or could have been, injured in an event involving chemical, biological or radioactive substances or physical agents, including spills and accidental emissions, as well as any illness contracted as a result of fieldwork or that may develop following the fieldwork.

Communication Devices

Regular communication methods may not be available during fieldwork; therefore, participants may require special devices.

- Satellite phone – a device that functions like a cell phone but that uses satellites rather than cell towers to relay communications.
- Walkie-talkie – devices that communicate via radio signals over short ranges (i.e. 1-2 km).
- Personal locator beacon – a distress beacon that is triggered to send a distinct radio signal in the event of an incident. The purpose of the system is to help rescuers locate survivors.
- Global positioning system – a system of satellites that, with a receiver, can determine the geographic location of the receiver on earth.
 - [InReach](#) – satellite technology that allows a subscribed user to remain in communication globally. The user can send and receive messages, navigate a route, track and share the journey and – if necessary – trigger an SOS.
 - [SPOT](#) – receiver technology that broadcasts a signal at pre-defined intervals whenever assets are moved.

SUBSTANCES CAUSING COGNITIVE IMPAIRMENT

Fieldwork locations are considered workplaces, and as such, activities conducted in fieldwork locations are subject to University workplace policies. Consequently, in accordance with University policy, smoking is not permitted in fieldwork locations, including all vehicles. Personnel must be fit for work – including in the field: therefore, no alcohol, recreational drugs (marijuana or others) or other impairing substances are permitted in a workplace setting.

If legal recreational substances are consumed outside of the workplace setting, each individual is responsible for ensuring that they consume such substances in a safe and responsible manner in accordance with local laws and regulations. Personnel must be fit to return to work. It should be noted that consumption and possession laws may vary from those with which fieldwork participants may be familiar. Participants must ensure that they are aware of, and comply with, local regulations (e.g. minimum age, blood alcohol limit, possession limits, etc.).

FIREARMS

The University of Ottawa has a directive on carrying weapons, including firearms. Depending on the fieldwork activity, carrying a firearm may be a reasonable means of protecting against wildlife hazards. Such protective measures should never be taken lightly, given that firearms have significant potential to cause injury or death.

The directive applies to personnel conducting fieldwork and is available on the [Office of Risk Management website](#).

INSURANCE

The University of Ottawa has a comprehensive insurance program that provides financial assistance to the University in the event of large losses. The insurance policies have many exclusions and their applicability is dependent on the specifics of each situation. **Therefore, supervisors should not assume that the University's insurance program will provide coverage for all participants – including for fieldwork participants – in all activities.**

Fieldwork supervisors are encouraged to contact the [Faculty Health, Safety and Risk Manager](#) and/or the [Office of Risk Management](#) well in advance of departure to verify if additional insurance is required.

ENVIRONMENTAL HAZARDS

The fieldwork environment may also present hazards due to plants, animals and weather. The personal health, safety and security of everyone participating in the fieldwork activity is of the greatest importance.

Plants

Poison ivy, poison oak and poison sumac

Poison ivy is a straggling or climbing woody vine that causes an itchy rash. It grows on sandy, stony, or rocky shores, and sprouts in thickets, in clearings, and along the borders of woods and roadsides. Poison ivy is a perennial that can spread by seed or by producing shoots from its extensive underground root system. Its leaf consists of three distinctive, pointed leaflets, with the middle leaflet much longer than the other two.

Poison oak is often taken for poison ivy, but the former has more oak-type, multi-lobed leaves, no aerial roots on the stems, and fuzzy fruits and leaves. Poison oak is generally not found in Canada, except for a western species that grows in southern British Columbia.

Poison sumac, which tends to grow in wet soil, has tiny sweet-smelling flowers in the spring. It is brightly covered with red and yellow leaves in the fall, with 7 to 15 leaflets. Poison sumac does not have three leaflets and is the only one of the three plants that has cream-coloured berries.

Brushing up against any of the three plants listed above can result in skin rashes caused by the urushiol in their sap. If in doubt, avoid touching an unknown plant until it has been clearly identified.¹

In the event of exposure to poison ivy, poison oak, or poison sumac, wash the affected areas with soap and cold water (rather than hot water that will open the skin's pores, increasing the chances of the sap being deeply absorbed into the skin). If soap is not available, use a vinegar solution (2 tablespoons in 1 cup of water) or alcohol solution (1/2 cup to 1/2 cup of water). While these practices may not prevent a reaction, they will help prevent the spread of the infection. If a reaction develops or worsens, seek medical attention. Skin irritation (itching, red inflammation, blisters and, in severe cases, oozing sores) resulting from exposure to poison ivy normally disappears in 7-to-15 days.

¹ [Health Canada](#) – Poison Ivy – Accessed November 15, 2018

Animals and insects

Undoubtedly, there will be wildlife and insects in the field, with the specific species dependent on geography. In all situations, bites or stings should be taken seriously, especially if caused by an animal behaving abnormally. Wounds that have broken the skin should receive first aid, which includes irrigating the site with water to clean the wound. Seek further medical care. Any initial response should include an assessment of the scene to determine if any further hazards are present.

Remember that remote locations are home to insects and animals. Any animal can become aggressive if it feels threatened, so maintain distance. Do not approach, touch, or feed local wildlife.

Insect Bites and Stings

Most people suffer only mild irritation from insect bites and stings. These symptoms may range from localized swelling, irritation or itchy skin at the bite/sting site. However, in other cases, individuals may suffer severe allergic reactions (including anaphylaxis) to a particular bite or sting (e.g. bees) and may require additional intervention, such as an Epi-pen injection and further medical care. Individuals may not be aware of an allergy, or may develop an allergy as a result of acute exposure. Monitor the breathing of anyone affected and seek medical attention.

Ticks

Ticks are small insects that live in forested and grassy areas. They will burrow into the skin, feed on blood and typically fall off once done feeding. However, ticks can transmit [Lyme disease](#)² and [Rocky Mountain spotted fever](#). To reduce the risk of infection, ticks should be removed with tweezers as soon as possible (note that the tick's body may break away with the head remaining embedded). Nymphs are more difficult to detect due to their size – less than 2mm – although they still present the same hazard. Nymphs will resemble freckles; the best way to detect them is to pass a hand slowly over the skin surface to feel the nymph attached to the skin.

To protect themselves, fieldwork participants are encouraged to apply insect repellent to their skin and clothing. Staying on existing trails will help reduce the risk of exposure; however, it is recommended that after each day in the field, each fieldwork participant check the entire surface of their body for evidence of ticks. If exposure is suspected, try to bottle the insect and seek medical attention. A tick may not be clearly visible (e.g. very small nymph in spring). If a bulls-eye, circle-like rash appears on the skin, or if other symptoms of Lyme disease develop, seek medical attention immediately. Further information about ticks and related health concerns is available from [Health Canada](#).

Mosquitoes

Mosquitoes are quite common and, while they may not be considered serious, mosquito bites cause local swelling and itchiness. Mosquitoes may also carry and transmit disease, including malaria and the Zika virus. The best protection is prevention. In most parts of Canada, mosquitoes are common from May to September. Mosquitoes are generally more active at dusk and dawn; therefore, limiting activities at this time can reduce the risk of exposure. Additional protective measures against mosquito bites include³:

- Using an [approved insect repellent](#)

² [Health Canada](#) – Lyme Disease – Accessed November 15, 2018

³ [Health Canada](#) – Mosquitoes – Access January 31, 2019

- Wearing loose clothes made of tightly woven materials that keep mosquitoes away from the skin, such as nylon or polyester.
- Using netting when sleeping outdoors or in an unscreened structure.
- Wearing long pants and sleeves as well as shoes and socks.

Snakebites

Venomous snakes are not common in Canada; however, rattlesnakes can be found in various parts of the country, including Ontario, Alberta, British Columbia and Saskatchewan. Although a snakebite may not always break the skin, if it does, the individual may have one or two puncture marks at the injury site. Venom may or may not have been injected. When treating a snakebite, do not attempt to suck venom out of a wound. The wound should be encouraged to bleed while a tourniquet and ice is applied. Seek immediate medical attention.

Leeches

Leeches live in rivers, lakes, swamps and stagnant bodies of water. A leech will create a small laceration to attach itself to an individual and then feed on the individual's blood. Often, a leech will go unnoticed until the person leaves the body of water. Pulling leeches off often results in the further tearing of skin, which increases bleeding. To remove a leech, use your fingernail to gently slide over the leech's anterior sucker where it is biting into your skin. Once the anterior sucker is removed, quickly pull the leech's posterior sucker off. Once removed, clean the site and treat with standard first aid.

Jellyfish

Jellyfish are non-aggressive marine animals that typically float near the water's surface in low light conditions or wash up on shore. Jellyfish have tentacles covered in venom-filled sacs known as nematocysts, which can cause painful stings. Although stings are usually accidental and generally not life threatening, they can become serious. In the event of a sting, wash the site liberally with vinegar to deactivate the nematocysts. Soak the affected area in hot water for 20 minutes.

Bears

If you encounter a bear during fieldwork, remain calm. If the bear sees you, talk in a low, calming voice while slowly backing up – never turn your back, stare or run. Give the bear space and make sure that it has a clear path to escape and that you are not blocking access to its food, cubs, etc.

If a bear approaches you or charges, do not run. If you have bear spray, spray in the direction of the bear, creating a wall of bear spray. If unsuccessful, play dead – roll on your stomach, cover the back of your neck and head and remain still; the bear will likely lose interest and leave. Do not run: this will encourage the bear to chase you.

In rare cases, a bear may see a human as prey and stalk the person along a trail. In these cases, try to maintain distance/escape and/or use bear spray, but if you cannot do so, use anything at your disposal to fight off the bear (rocks, sticks, hiking poles, etc.).⁴ In the event of a polar bear attack, use survival instincts and fight back to survive.

The best interaction with a bear is the one you avoid. Make your presence known, be alert and remain with the group. Ensure that tent areas, cooking areas and storage sections are set up in a triangle pattern spaced well away from one another (i.e., 15-20 metres).

⁴ [British Columbia Parks](#) – Staying Safe in Bear Country – Accessed November 14, 2018

Weather

Weather conditions affect significantly more important decisions than what clothing to wear. Fieldwork activity leaders should plan for risks due to recent and historical weather patterns. For example, ground conditions in a location that has recently experienced heavy rains may now be at greater risk of mudslides, etc. The risk assessment conducted by the fieldwork leader may impose additional precautions.

Fieldworkers should prepare for weather conditions by always bringing clothing that is appropriate for the fieldwork activity. Whenever possible, fieldworkers should layer clothing to maintain optimal body temperature in changing weather conditions, including a waterproof/windproof/breathable outer layer that is highly visible. They should plan to bring the right kinds of extra outerwear (hats, gloves, boots,) for cold conditions. Footwear should be suitable for the terrain; in most cases, standard walking boots are recommended.

Given that some areas of the world are more susceptible to natural disasters – such as earthquakes, tornadoes, volcanic eruptions, hurricanes, etc. – fieldwork operations in these locations carry greater risk. Hence, when planning fieldwork operations in these areas, take into account seasonal, geographic and local factors. Plan activities to avoid, eliminate and/or minimize such risks in the area of work.

Equipment

Many fieldwork activities require the use of both common and specialized equipment and tools. Ensure that the equipment is serviceable prior to each use, and maintain it properly throughout the fieldwork activity. As is the case in a regular workplace, individuals who are unfamiliar with, or inexperienced in using, the equipment or tool should not use it. Store equipment in a safe place to protect it from damage, theft and vandalism.

Basic equipment that may be useful during fieldwork operations includes:

- A watch
- Flashlight and spare batteries
- Compass
- Pocketknife
- Fire starter
- Bear spray
- Means of communication (e.g. radio, cell/satellite phone, etc.)
- GPS unit

Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) is equipment worn by a person to minimize exposure to specific hazards. Personal protective equipment does not reduce the hazard itself, nor does it guarantee permanent or total protection. It should be used only when the hazard **cannot be adequately removed or controlled. Selection of proper PPE depends upon the individual's tasks and exposure to hazards.**

Appropriate personal protective equipment suitable for fieldwork activities includes:

- Protective headwear (e.g. hard hat, bump cap, wide-brimmed hat, etc.);
- Protective eye/face wear (e.g. safety glasses, goggles, face shield, sunglasses, etc.);
- Gloves (e.g. nitrile, leather, insulated, etc.);

- Protective footwear (e.g. steel-toed boots, hiking boots, etc.);
- Clothing (e.g. appropriate for environment and operations);

Personal protective equipment must be appropriate for use, in serviceable condition, and should bear an appropriate certification mark, typically from the Canadian Standards Association (CSA).

Although insect repellent and SPF30 sunscreen are not personal protective equipment in the classic sense, they may be advisable given the local conditions and season.

HAZARDOUS MATERIALS

Before using a hazardous material, users must be aware of its inherent hazards and be properly trained in how to safely handle, use and store it.

Fieldwork activities that involve hazardous materials must comply with applicable transportation and disposal regulations. The Office of Risk Management can assist in coordinating the transportation and disposal of such materials, including:

- Disposal of waste generated off site (e.g. field stations to campus)
- Relocating research (e.g. field stations to campus)
- Liaising with local regulatory authorities to help determine requirements

The cost of transporting or disposing of hazardous materials may not be covered by local authorities, so fieldwork supervisors are encouraged to contact the Environmental Management group at the Office of Risk Management via enviro@uottawa.ca to discuss specific fieldwork requirements.

For unique situations, the Office of Risk Management will need to be contacted in advance, at enviro@uottawa.ca, in order to coordinate the request.

Waste Disposal

Check with local authorities for information on disposal practices. Remember that as a representative of the University of Ottawa, you should remove and properly dispose of any garbage or excess materials your activities may generate. Note that some establishments have strict rules governing the removal and disposal of garbage.

FIRE

Fieldwork participants should review fire regulations and monitor conditions throughout the duration of the activity. Participants may need to take special precautions, such as restricting open fires, during high-risk periods (i.e. droughts, lightning storms, etc.) Regularly check with local agencies to determine whether open fires are allowed.

Minimize the risk of unintentional fires that which may occur due to:

- Parking vehicles in long grass: the heat emitted may cause a brush fire.
- Smoking near dry vegetation.
- Leaving a fire unattended.

ICE

Exercise caution when travelling or working on a frozen lake, especially in warmer temperatures, since thin ice may collapse under the weight of a person or equipment. Remain on bare ice rather than snow-covered ice, since snow will act as an insulator and may prevent the water from freezing solid. When crossing a riverbed, avoid areas where rocks are visible, since this may indicate an undercurrent that could reduce freezing above. Check the ice with a probe or pole before stepping onto the ice surface. If you break through a patch of ice and fall into the water, extend your arms up and forward, and kick towards the surface.

TRANSPORTATION

Fieldwork activities will likely occur in remote or isolated locations. Although travel to the drop off point may be simple, further travel to the final site may be more difficult.

Vehicles

Drivers travelling alone should take a 20-minute break after every three (3) hours of continuous driving. When sharing driving duties, drivers should alternate every two hours. The cumulative driving time for each driver should not exceed 8 hours over a 24-hour period. The time spent by each person working in the field, or working and driving, should not exceed 12 hours for each 24-hour period.

Fieldwork supervisors may decide to exceed the recommended time limits in light of working conditions or the participants' training and experience.

Drivers travelling in North America may want to subscribe to a vehicle assistance program (e.g. [CAA](#)) if their work requires extensive travel by vehicle.

The transportation of dangerous goods requires strict compliance with applicable regulatory requirements, including, but not limited to, the *Transportation of Dangerous Goods Act* and other international conventions.

Watercraft

According to Canadian Coast Guard regulations, anyone who operates a motorized pleasure craft less than four meters in length must have a pleasure craft operator certificate on board. Venturing out on the water in poor conditions is not recommended. Items carried in a boat should be properly distributed to maintain equilibrium.

Additionally, watercraft operators should be equipped with:

- An approved lifejacket appropriate for each individual (i.e. size and weight) on board
- A manual propulsion device
- An anchor with rope
- A whistle
- A compass
- Large scale maps and aerial photographs
- A GPS indicator
- An emergency position indicating radio beacon (EPIRB)

OUT-OF-COUNTRY FIELDWORK

Fieldwork participants who travel outside of Canada may face additional considerations due to the requirements of certain international partners. [Global Affairs Canada](#) provides information – including travel advisories, document requirements, and emergency information – for Canadians travelling abroad.

Fieldwork participants travelling outside of Canada are encouraged to [register with Global Affairs Canada](#) prior to travel so that the Government of Canada can contact them while abroad in the event of an emergency (such as a natural disaster or civil unrest). The Canadian government publishes [a list of country-specific information](#), including trade and mission offices.

Fieldwork participants may also require additional vaccinations to protect them from region-specific hazards. Health Services has a [Travel Medicine Clinic](#) for those travelling abroad. The travel health experts at uOttawa Health Services offer complete pre- and post-travel consultations.

Researchers who intend to bring research materials or specimens back to Canada must ensure that such material can lawfully enter Canada prior to arriving at Customs. For example, certain plants cannot be brought into Canada and will be confiscated by CBSA.

The Office of Risk Management can also provide recommendations for fieldwork activities involving international travel. Contact safety@uottawa.ca for more details.

PRIOR TO DEPARTURE

Supervisors must notify the University of Ottawa, through their department and/or faculty office, of the:

- Geographic location of the fieldwork
- Approximate duration of activities
- Types of activities that will be carried out
- Means of ordinary and emergency communications
- Names of the people participating in the fieldwork, including emergency contact information (emergency contact information will only be used in the event of an emergency). Refer to Appendix 1.

Fieldwork supervisors must ensure that they have permission to access the intended fieldwork destination. Advance permission from the landowner (private, government, etc.) or controller may be required before beginning fieldwork operations. Notify the appropriate person(s) before each visit. The researcher is responsible for obtaining the requisite licenses and/or permits relevant to the fieldwork activity. Students should carry a letter from the fieldwork supervisor stating that they are a student of this institution and the purpose of their visit.

The University highly recommends that supervisors identify hazards and assess the anticipated risk prior to departure. Risk assessments can be subjective; however, the fieldwork supervisor and participants are best equipped to identify hazards and risks relevant to their activities. Risk assessments include identifying the hazard(s), analyzing its likelihood and severity, and taking measures to avoid, eliminate, reduce, transfer or accept the risk. Below is an example of a risk assessment.

Activity	Potential hazards	Likelihood of Occurrence (1 – 5)	Severity of Occurrence (1 – 5)	Control measures
Refueling a vehicle	Burns (fire)	1	4	Keep open flames away from fuelling area.
	Burns (explosion)	1	5	Keep open flames away from fuelling area.
	Injury to mucous membranes (spill)	2	2	Wear chemical splash goggles.
Collecting water samples	Drowning	1	5	Inspect watercraft for damage. Lifejackets worn at all times on water.
Working in cold environments	Hypothermia	2	4	Wear layers of adequate clothing (remove layers to reduce sweating). Eat plenty of food and stay hydrated.

Fieldwork supervisors must establish emergency procedures before departing for the field. Such procedures include drafting lists of contacts and locations of local emergency services (e.g. police, ambulance, park ranger, etc.), procedures to follow if individuals become lost or need to be evacuated due to illness or injury, loss of important equipment/documents, etc. For example:

- If an emergency results in a mobility problem, the majority of the group should remain with the affected person (i.e. in a group of 4 people or more, 2 participants can get help; in a group of 2 or 3 individuals, only 1 person should go for help).
- Draw attention to yourself using the international distress signal (S.O.S.) – 3 short shots, 3 long shots, 3 short shots – using a whistle, or with a flashlight, etc.

Appendix 1 can be used to designate emergency contacts. The information provided must remain confidential to the extent reasonable.

Appendix 3 is a field work form that may be used as a planning tool. Please refer to the current policy for your faculty/department (if applicable). If you require assistance, consult with the Faculty [health, safety and risk manager](#) or the [Office of Risk Management](#).

DURING FIELDWORK

While performing fieldwork, keep these important tips in mind:

- Carry emergency contact information at all times
- Refrain from working alone or in isolation
- Ensure that materials and supplies, including those for the fieldwork activity as well as personal supplies (including medications), are available in the appropriate quantity.
- Follow the instructions issued by the fieldwork supervisor and comply with local regulations and customs.

FOLLOWING FIELDWORK

The University recommends that participants be debrief shortly after they complete the fieldwork activity. The aim of this debrief is to highlight situations in which the group excelled and to learn from situations that were unexpected. The debrief will help fieldwork supervisors prepare for subsequent fieldwork activities.

ADDITIONAL RESOURCES

Additional information is available from:

- Faculty of Science – [Fieldwork Safety Procedure](#)

APPENDIX 1 – EMERGENCY CONTACT LIST

Name:	Employee/student number:
Telephone number:	Email:
Special considerations: Example: allergy to XYZ.	

EMERGENCY CONTACTS

CONTACT 1

Name:	
Telephone number:	Email:
Address:	

CONTACT 2

Name:	
Telephone number:	Email:
Address:	

APPENDIX 2 – COMMON TELEPHONE NUMBERS

- University of Ottawa
 - Emergency – 911 (or equivalent)
 - Protection Services – 613-562-5411 (emergency)
 - Protection Services – 613-562-5499 (non-urgent)
 - Office of Risk Management – 613-562-5892
 - Human Rights Office – 613-562-5222
- Off-Campus Resources
 - [Joint Rescue Coordination Centre](#)
 - [Royal Canadian Mounted Police](#)
 - [Parks Canada Search and Rescue](#)
 - [Natural Resources Canada Polar Continental Shelf Program](#)

APPENDIX 3 – FIELD WORK PLANNING TOOL

Refer to the [Field Work Planning Tool](#).