



Field Research Safety Guide

For the purpose of this document, field research is broadly defined as scientific research that is conducted off campus. Field research can present a challenge keeping individuals safe in their surroundings. The intent of this document is to establish the minimal roles and responsibilities for all field research personnel and to provide general guidance and resources on field research safety. Other USC policies or procedures may apply.

Roles and Responsibilities

Principal Investigator (PI)/Academic Supervisor

- Obtain any necessary approvals for research activities if required (e.g. IACUC, IBC, IRB, academic program, department chair, etc.). Consult with Enterprise Risk Management & Insurance (Brian Hann; hann@mailbox.sc.edu, 777-2828) with questions regarding insurance for special field research risks.
- Ensure that everyone is aware of the health and safety risks associated with the specific field research activities. It is highly advisable to have a written field research safety plan that identifies and assesses these risks. If a plan is developed, it should be made accessible to all field research personnel.
- Ensure that appropriate safety equipment (e.g. personal protective equipment, first aid kit, emergency kit, flashlights, etc.) is provided.
- Provide all field research personnel with appropriate safety training and document this training.
- Maintain emergency contact information and have a means for contacting the University and nearby emergency help. All conducting field research should be made aware of the nearest medical facility.
- Ensure that employees are made aware of and follow University incident reporting requirements in the event of an accident or incident. Refer to Human Resources' [website](#) for more guidance.

Field Team Leader/Supervisor (if different from PI)

- Maintain regular contact with PI regarding research activities and immediately inform them of any accidents, illnesses, or emergencies. Avoid conducting field research alone whenever possible.
- Implement safety protocols or plans while research is being conducted.
- Appropriately supervise field team in the duties assigned to them.
- Routinely assess risks and investigate safety hazards to ensure health and safety of field team.

Field Team

- Perform assigned research tasks in a safe manner utilizing precautions communicated during safety training provided by the PI or field team leader.
- Use appropriate protective equipment provided by PI or field supervisor.
- Immediately notify PI or team leader of any accidents/incidents, illnesses, or emergencies.
- Notify PI or team leader of any noted safety hazards or concerns.

Note: Solitary field research conducted in remote locations and in other locations that are inherently dangerous is strongly discouraged. If working alone in these types of locations is deemed necessary, strict reporting and emergency response procedures must be in place.

Potential Hazards and Resources (list not exhaustive)

- **Environmental and Physical**
Environmental and physical hazards will exist in nearly all field research excursions. They can include, but are not limited to, inclement weather (e.g. thunderstorms), extreme weather (e.g. blizzards, flash floods,

very high temperatures, etc.), high altitudes, rough terrain, and poisonous plants. Researchers should plan ahead and perform risk assessments to identify and become familiar with these hazards.

- **Electrical**

Electrical gear and equipment used in the field should be examined for potential safety hazards (i.e. frayed or damaged cords, missing ground pins, etc.) prior to the trip and before use in the field. Special care must be taken when using electrical equipment near water or in wet conditions.

- **Animals/Wildlife**

Dangerous wildlife and pests exist worldwide. If handling wildlife is part of a research project, care must be taken to handle animals in a manner that avoids potential attacks or exposure to diseases. For questions regarding field research involving animals or IACUC approval requirements, consult with Shayne Barlow (barlows@mailbox.sc.edu, 777-8106).

To avoid pests in living spaces/quarters, food items should be stored in closed, plastic or other durable, leak-proof containers. Garbage or anything that could be a source of food for vermin or other pests should be kept away from campsites/living areas. The handling of sick or dead wildlife should be avoided.

- **Biological**

There is potential for exposure to biological hazards in most outdoor areas. Biological hazards include harmful microorganisms that can cause vector-borne, zoonotic, and waterborne illnesses. Care should be taken in areas that have a high potential for vector-borne illnesses like Zika fever and West Nile fever. Appropriate clothing and PPE should be worn in such a manner as to avoid exposure to infected insects or animals (e.g. making sure pants are tucked into boots, wearing long sleeves to cover arms, etc.). Insect repellent should be considered as well. Avoid drinking untreated/unfiltered water that could harbor harmful bacteria or other microorganisms that may cause illness. If you have questions pertaining to biological hazards, contact the Biosafety Officer, Mark Robbins (mrobbins@mailbox.sc.edu, 777-4042).

- **Chemical**

If field research will be conducted using hazardous chemicals, the same precautions in UofSC research labs must be taken in the field. Proper PPE must be worn when handling chemicals. Care must be taken to avoid chemical spills and to minimize the potential for chemicals to enter the environment. Transport of hazardous chemicals and waste disposal must be discussed prior to your research trip. For questions regarding the use of hazardous chemicals in the field, contact Jocelyn Locke (jlocke@mailbox.sc.edu, 777-7650) or chemical waste questions contact Jeff Brannon (brannonm@mailbox.sc.edu, 777-1935).

- **Radiological**

Conducting research that involves work deep in the ground (e.g. salt mines) could expose workers to higher than normal levels of naturally-occurring radioactive sources (e.g. radon and other naturally-occurring radioactive material in the ground and sea.). If radioactive content will be collected and concentrated from soil or earth materials as part of a research project, or if research involves the use of any ionizing or non-ionizing radiation source (e.g. any form of a radioactive material or source, lasers and other hazardous forms of light), the Radiation Safety Office must be notified prior to the field work (777-7530 or radsafe@mailbox.sc.edu). For questions about any radiological hazards you may encounter in the field, contact the University's Radiation Safety Officer, Bryan Bagg (bagg@mailbox.sc.edu, 777-7530).

Additional Resources

[CDC Resources for Travelers](#)

[CDC Traveler's Health](#)

[National Weather Service](#)

[UC Field Research Safety Center of Excellence](#)

[US Department of State Travel Advisories](#)

[WHO International Travel and Health](#)

USC Resources

[Student Health Services Travel Clinic](#)

[Study Abroad Office](#)

[Office of Research Compliance](#)