Central Michigan University Field Safety

Veit's Woods Field Safety Plan

Instructions

The principal investigator (PI) or teaching assistant (TA) is responsible for preparing a field safety plan for each field excursion that is covered by CMU's Field Safety Policy.

The checklist below is intended to help the PI or TA complete all the necessary steps in preparing and submitting the Safety Plan. Information about potential hazards and control measures may be found on the Office of Laboratory and Field Safety web site.

Despite the urbanity and relative safety of Veit's Woods, injurious and potentially fatal hazards still exist. The presence of these dangers calls for all field teams to be prepared to handle the variety of emergencies that could arise when working in Veit's Woods. However, the frequency of some courses' usage of Veit's Woods, coupled with the requirement of a field safety plan for every trip, results in faculty continuously creating repetitive safety plans. In order to alleviate this frustration, the following template has been made.

Luckily, the base hazards in Veit's Woods are largely unchanged. The risk assessment portion of this template only needs additions if your field will introduce new hazards to the environment (i.e. electrofishing, animal capture, extreme physical exertion, etc.). If no additional risk assessment is required, then the following information is all that will need to be edited:

1. Principal Investigator Information
2. Field Team Leader Information
    a.
3. Travel Schedule
    a. If you have multiple field trips to Veit's Woods in one semester and the trips are largely identical in terms of objective and content, (i.e. four trips studying the basic diversity of different microecosystems in Veit's), then you can list the general dates and times for these trips as seen in your syllabus.
4. Field Work Summary
    a. Similar to the travel schedule, if you have multiple trips throughout the semester that are similar in nature, you can include all of the field summaries in one field safety plan. However, if one of your trips introduces a foreign risk (i.e. electrofishing) then this trip will require a separate safety plan.
5. Emergency Contacts
6. Field Team Members
7. First Aid/CPR
8. Physical Demands

Ensure the field team leaders and PIs thoroughly review this plan and understand the hazards present in Veit's Woods and the proper steps to take in the case of the variety of emergencies that can arise. Prepare leaders to handle these situations by running them through mental exercises. Also, instruct them in preparedness (carrying appropriate gear and observing students' behavior) as noted in the risk controls below.

If you are uncertain of the expectations of a basic Veit's Woods Safety Plan, click here to review an example plan.

- ☐ Names and contact information of all participants (PI/LI, field team leader, other team members or participants) are entered. You may attach a class list with contact information added.
- ☐ Information about the field location including nearest medical facility is entered.
- ☐ Information about the nature of the field work is entered.
- ☐ Information about participants who are trained in First Aid and CPR is entered.
- ☐ Emergency procedures, including communication plans, are described.
- ☐ Any physical demands needed for the field work are described.
- ☐ All potential risks and hazards are identified along with measures to reduce each risk.
- ☐ Relevant forms (travel itineraries, SCUBA itineraries, Educational Trip forms, *etc*.) are attached.
- ☐ All personnel who will drive vehicles are approved by Risk Management.
- ☐ All participants have reviewed the CMU Field Safety Policy within the past year and submitted the acknowledgment form (forms kept by the Department and Office of Lab and Field Safety).
- ☐ Relevant participant forms (health information, volunteer waiver, informed consent) have been collected and retained or submitted to the department chair as appropriate.
- ☐ Safety Plan is submitted to department chair for approval **at least one week prior to departure**.

Each Fieldwork Safety Plan should be retained by the Department for a period of one year.

Central Michigan University Field Safety

Fieldwork Safety Plan

Principal investigator or lead instructor	**Field team leader** (if different)
Name: John Doe	Name: Jane Doe and Jack Ryan
Department: Biology	Department: Biology
Phone number: xxx-xxx-xxxx	Phone number: xxx-xxx-xxxx , xxx-xxx-xxxx
Email: jdoe1@cmich.edu	Email: jadoe@cmich.edu , jryan1@cmich.edu

Travel schedule (dates, times of departure and return, team leader name, method of transport)

1. 09/03/2021, 0830-1030, Jane Doe, walking
2. 09/03/2021, 1330-1530, Jack Ryan, walking
3. 09/15/2021, 0830-1030, Jane Doe, walking
4. 09/15/2021, 1330-1530, Jack Ryan, walking
5. 10/03/2021, 0830-1030, Jane Doe, walking
6. 10/03/2021, 1330-1530, Jack Ryan, walking
7. 10/24/2021, 0830-1030, John Doe, walking
8. 10/24/2021, 1330-1530, Jane Doe, walking
9. 11/03/2021, 0830-1030, Jack Ryan, walking
10. 11/03/2021, 1330-1530, John Doe, walking
11. 12/01/2021, 0830-1030, Jane Doe and John Doe, walking
12. 12/01/2021, 1330-1530, Jack Ryan and John Doe, walking

Location of field work	
Country: Veit's Woods, Mt. Pleasant, MI	Geographical site: Veit's Woods
Nearest town and its distance from field site: Mt. Pleasant, N/A	Nearest medical facility and its distance from field site: McLaren Central Michigan, 2.5 Miles

Field work summary (nature of field activities)

09/03/2021: Introduction to Field Ecology Veit's Woods walkthrough. Students will be guided by a TA familiar with Veit's Woods and shown each location they will work at through the semester. They will be instructed on the layout, the trail system, exits, as well as relevant safety issues.

09/15/2021: Grassland layers and diversity study. Students will net for various insects and investigate the layers of the grassland ecosystem on the north end of Veit's Woods. Students will be advised to wear gloves and long sleeves/pants, and to be prepared for biting/stinging insects. Both team leaders have been trained in emergency response and know what student requires an epi-pen if stung.

10/03/2021: Aquatic ecosystem diversity study. Students will wear waders and capture a variety of aquatic organisms. After capturing these organisms, they will study them in a nearby clearing before returning them to the Chippewa River. This date is subject to change depending on the depth and current of the river at the time. The study will be conducted south of the Chipp-A-Waters Park bridge. Team leaders will instruct the students to bring extra clothes if the weather is cold. Both leaders will also be prepared to provide emergency blankets and warm clothing to any student who may get drenched in the cold air.
10/24/2021: Hardwood forest diversity study. Students will tour the inner forests of Veit's Woods and learn about the importance of soil microorganisms and how the different layers of the hardwood ecosystem interact to form one large, functioning environment. Students will learn to identify basic soil layers by looking at a pre-dug soil pit, how to measure DBH and estimate the amount of organic matter contributed to the forest floor by trees, as well as how deer and other megafauna affect forest regeneration. The team leaders will be prepared to handle emergency situations as laid out in the risk assessment controls section.

11/03/2021: Students will begin to conduct their end-of-term project. They will choose a subject and get to design and conduct their own study based on the previous visits to Veit's Woods and what they have learned in class. They will divide into groups of five and work in the hardwoods and grasslands of the northwest side of Veit's Woods. No aquatic work will be permitted.

12/01/2021: Students will tour Veit's Woods after the snow falls to see the change the ecosystem experiences as the weather changes. This trip is strictly observational and will revolve around note taking for a report the students will write as part of their final assessment in the course.

Emergency contacts	
University contact (Name and phone number): Mike Franks (xxx-xxx-xxxx)	Local contact (Name and phone number): Midas Weaver (xxx-xxx-xxxx)

List all field work team members and relationship to CMU (student, employee, volunteer).	
John Doe Jane Doe Jack Ryan All Students Participating in Course	PI TA TA Student

Field Trip Health Information Form Management Plan (e.g., who will be responsible for form collection, retention, and in-field possession).

Team members will fill out the health information form and print out a copy to keep with them in the field. All members must have the form on their person, stored in their back right pocket so it can be found in the case of an emergency. Members are encouraged, but not required, to send a copy of the form to John Doe so he can make any necessary accommodations to keep the team safe.

First aid / CPR training. List all individuals who are trained in first aid and CPR, including the type of training received and expiration of training.

Jane Doe has First Aid and CPR training. John Doe will be attending a CMU First Aid and CPR teaching session this fall.

Emergency procedures (*e.g.*, evacuation and emergency communication).

1. Always maintain awareness of your location in Veit's Woods. Know the closest entrance and name of the area/trail you are in. 2. Know the risks and the controls for each hazard, as well as the appropriate way to deals with resulting injuries, symptoms, or threats. 3. Identify the affected party and any dangers that may pose harm to a rescuer. 4. Approach the victim and check for breathing and a pulse if unconscious. If conscious, attempt to gather as much information from them as possible. 5. Instruct someone to call 911 (or put 911 on speed dial if alone with the victim) then perform CPR or other first aid measures as needed. 6. If in a group, send any students who are not helping stabilize the victim to nearby entrances to help direct EMS to the correct location.

Physical Demands: List any physical demands required for field work (*e.g.*, diving, climbing, hiking, heavy lifting).

Hiking, Crouching, Sun/Heat Exposure, Cold Exposure, Working in waders in shallow water,

Risk assessment: List identified risks associated with the field work (*e.g.*, extreme heat or cold, rough terrain, wild animal hazards, chemical hazards). List appropriate measures to be taken to reduce risk.

Identified risk	Control of risk/response
1. Medical Emergency	Students will be given the opportunity to divulge any medical issues or concerns to the PI and TAs through the medical history form. Students will be encouraged to bring any required or recommended medications (i.e. Epi-Pens) on the trip. If a student experiences a medical emergency, the group leader will dial 911 and inform the operator of their specific location and the nearest park entrance. They will select several 'runners' who will form a chain between the site and the nearest entrance and help guide emergency services. In the interim, the group leader will inform the 911 operator of the stricken student's medical history and administer any relevant medications. If CPR or First Aid can be administered, a trained individual (or one instructed by a 911 operator) should do so until help arrives. The group leader will then notify the PI, rally the remainder of the team, and lead them back to campus.
2. Insect Stings and Poisonous Plants	A myriad of stinging and biting insects and several species of poisonous plant inhabit Veit's Woods and the neighboring Chipp-A-Waters park. Students who are highly allergic to stings, bites, and topical poisons should know how to identify potentially troublesome organisms and avoid them. If they have an Epi-Pen, they should bring it with them. The group leader (TA, PI, etc.) should carry a small bottle of anti-histamine tablets with them to help alleviate mild symptoms. If a student experiences a severe allergic reaction (i.e. anaphylactic shock) the group leader should follow the same instructions listed above. Even if the administration of an Epi-Pen relieves symptoms, the effect is often only temporary and life-threatening symptoms can reemerge after only a few

	minutes. Group leaders must familiarize themselves with the signs and symptoms of anaphylaxis and know how to use an Epi-Pen. Students, PIs, and TAs should also familiarize themselves with the location, identification, and removal of ticks, chiggers, and similar parasitic organisms that may latch to their skin or clothing. If an engorged parasite, or one that has been attached longer than 24 hours is found, the parasite should be tested for diseases such as Lyme's Disease.
3. Sun Stroke, Dehydration, Etc.	Group leaders should notify their students prior to departing for the trip (i.e. in the previous class or via email) of the predicted weather for the trip to Veit's Woods and inform students what gear they should bring. In the summer, students should dress according to the temperature and keep a rain jacket or umbrella on hand. They should avoid open toed shoes and shoes with poor ankle support and not wear shorts if hiking through any brush. Group leaders should emphasize that every participant bring a full bottle of water with them Group leaders should also bring an extra bottle of water, and an extra form of rain protection, and a few small crush-to-activate icepacks (i.e. in a first aid kit) in the summer, fall, and spring. TAs and PIs need to know the signs and symptoms (listed below) of dehydration and sunstroke and how to treat them. If the symptoms are serious, they should employ the same system of emergency contact listed above.
4. Hypothermia	In the winter, students should wear layers and dress warm to prevent becoming chilled or worse. Group leaders should consider carrying a small survival blanket, an extra hat, pair of gloves and light fleece jacket in their pack. TAs and PIs should familiarize themselves with the signs and symptoms of hypothermia, frostbite, and excessive cold, how to treat them, and follow the emergency protocols listed above.
5. Slips, Trips, and Falls	Students should be encouraged to wear close-toed shoes that provide some measure of ankle support and traction. They should also wear socks to prevent blisters, cuts, and cold feet. PIs and TAs should bring two or more ACE bandages in their pack to treat any sprains, strains, or similar injuries. If a student cannot walk on their own, they should be helped to the nearest exit and picked up. If a serious injury occurs, i.e. a break or fracture, the student should not be moved (unless paramount to their survival/further injury) and kept warm until emergency services arrive. PIs and TAs should be familiar with the signs, symptoms, and treatments for shock. Follow the emergency protocols listed above.
6. Wild Animals	While the chances of a dangerous animal encounter are miniscule, there are several animals (squirrels, chipmunks, raccoons, possums, coyotes) that could bite, have ticks/fleas, or carry diseases. Students should not feed or attempt to approach or pet any live animal in the woods. They should also refrain from approaching dead or injured animals at the risk of contracting parasites, diseases, or encountering an animal with heightened aggression. If something abnormal is noticed (sickly or potentially rabid animals, injured animals, etc.) it should be reported to the county animal control. If someone is bitten or scratched by an animal, it should be reported to animal control. The individual should then be transported to a local hospital. Be sure to remember the type of animal that attacked, as well as any behavioral or visual abnormalities exhibited by the animal.

7. Moving and Stationary Bodies of Water	Unless necessary to the field work, students should avoid the water. If heavy rains were recent, consider forgoing any water-related work. If work will take place in or around water, appropriate details should be provided in the field work summary about the type of work being performed. Life vests or other life preservation equipment may be required depending on the specifics provided in the field work summary.
8. Human Encounters	Although unlikely to occur in large groups, students, TAs, and PIs should remain vigilant and cautious of suspicious persons. Individuals exhibiting eccentric, suspicious, or threatening behavior should be watched and possibly, the police should be informed. Individuals utilizing the woods alone, at dark, or in small groups should remain cautious and alert of suspicious persons and vehicles in and around Veit's Woods and Chipp-A-Waters Park.
9. Natural Disasters, Mass Casualty Events, Etc.	It is possible that during a visit to Veit's Woods, natural or human-made threats could arise. Severe thunderstorms, tornados, and blizzards are some of the more likely natural threats. The potential for an on-campus or local active shooter event is possible as well. If one of these events occurs, seek shelter at the nearest possible safe location.
10. Traffic	The walk to and from Veit's Woods will expose students to traffic on many streets in residential, commercial, and university areas. Students should walk on sidewalks or grass on the road's edge at all times. Roadways should only be walked on when necessary for crossing or bypassing an obstruction preventing walking on the sidewalk/road edge. Exercise caution when crossing roadways and beware that approaching vehicles may be moving faster than they appear. If traveling to Veit's Woods in the dark, dusk, dawn, or when visibility is otherwise reduced, the class should stick together and several members should carry flashlights and wear reflective vests/clothing.

Equipment Suggestions: List any equipment suggested for field work (*e.g. Emergency Survival Kit, GPS, Boots, Rain Gear, etc.)*

Students: closed toe footwear, preferably with good traction and ankle support, rain jacket or umbrella, water and water bottle, charged cell phone, backpack to hold items, layers if cold, sunscreen, bug spray, medications.

TAs/Leaders: Charged cell phone, battery power bank, x2 ACE Bandages, first aid kit, extra water bottle, extra umbrella/rain jacket, extra warm clothes (if cold), bug spray, sunscreen, crush to activate ice packs (x2), backpack to carry items.

Reviewed by Department chair: _____ Date: _____
or Program director