NATURAL HISTORY INSTITUTE

INTEGRATING ART, SCIENCE, AND HUMANITIES

Saying Yes to Environmental Field Studies:

A Guide to Proactive, Successful Administration and Operations

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ACKNOWLEDGEMENTS AND INTRODUCTION

This document represents a confluence of two streams. The bulk of the document (Part Two) is adapted from the 7th edition of the *Prescott College Field Manual* published in 2015. This manual was developed by Steve Pace with input from a great many faculty at the College, especially in the Adventure Education and Environmental Studies programs. The *Prescott College Field Manual* provides guidance on conducting activities of all types, such as rock climbing, mountain biking, sea kayaking, and mountaineering—as well as field biology and geology—so that they may take place with risks to participants and the institution thoughtfully managed and supervised. Examples of activity standards are included in "Section XIII—Activity Specific Standards And Considerations" of this document. We thank Paul Burkhardt, Prescott College Provost, for granting permission to share this accumulated wisdom. We also thank NOLS for allowing us to adapt portions of their practices around student essential eligibility criteria that is addressed in the last section of this document. For more information on this topic we recommend the book *Canoeing and Kayaking for People with Disabilities* (Zeller 2009).

The recognition of the usefulness of resources like this document to the future success of environmental field studies in higher education was made clear by the collaborative working group on the future of biological field studies convened at the Natural History Institute, at Prescott College, in 2016. This project, and the present document, was supported by the U.S. National Science Foundation award #1546895 to Thomas L. Fleischner: "Workshop: The Decline in Field Studies: Proactive Strategies for Essential Training for the Next Generation of Biological Researchers." We thank our colleagues in this working group for the stimulating and supportive discourse that led to this document. Also, thanks to Lisa Zander, Program Coordinator and Collections Manager at the Natural History Institute, for additional editing and formatting help.

Part of our goal in the NSF workshop was to identify proven practices for managing the risks inherent in conducting field studies, and determine ways to remove unnecessary obstacles to field education, that are all to commonly designed and implemented by well-meaning, but uniformed administrators. In this spirit, we offer here an approach—used successfully at Prescott College and elsewhere—that accounts for, reduces, and manages risk. We provide a template for a field studies manual—to be adapted by interested institutions to address its specific concerns—and thus make it easier for administrators to responsibly say yes to, and support field studies.

Zeller J. 2009. Canoeing and Kayaking for People with Disabilities. Human Kinetics.

AUTHOR BIOS

Steve Pace serves as the Director of Standards Development and Accreditation at the Association for Experiential Education. He is also Professor Emeritus at Prescott College. During his 25 years at Prescott College he served as Dean of Resident Degrees, Director of Risk Management for Field Activities, Chair of the Adventure Education Program, and later the Human Development and Counselor Education Program. Before coming to Prescott College, Steve worked for 11 years at the Voyageur Outward Bound School serving as a program director, safety officer, course director and instructor. Steve's areas of expertise include outdoor education and college program administration, risk management of field activities, interpersonal and group communication, mediation and conflict resolution, and therapeutic use of adventure education.

Thomas L. Fleischner has been teaching college field courses for more than three decades. For the past 29 years, his field classes at Prescott College have included sites near and far, including throughout Arizona, the Utah canyon country, Gulf of California, Mexico, Alaska, and Maine. Courses that lack any field component have been the exception rather than the rule in his teaching career. Prior to Prescott College, Fleischner taught backcountry field courses for the Sierra Institute at UC-Santa Cruz. For the past five years he has also served as Director of the Natural History Institute at Prescott College.

Saul Weisberg is a poet, naturalist, educator and executive director of North Cascades Institute, a conservation organization that inspires and empowers environmental stewardship for all through transformative educational experiences in nature. He has worked throughout the Northwest as a field biologist, wilderness climbing ranger, commercial fisherman and fire lookout. Saul is author of Headwaters: Poems & Field Notes, North Cascades: The Story Behind the Scenery, and From the Mountains to the Sea. He lives with his wife Shelley near the shore of the Salish Sea in Bellingham, Washington.

Angela Moline is the founder of Educate Wild! She has served as the Assistant Director of Education for the Landscape Conservation Initiative and a Senior Lecturer in Environmental Science at Northern Arizona University. Moline has taught field-based courses across the western USA and Mexico for Northern Arizona University, the Wild Rockies Field Institute, Prescott College, and Outward Bound. She is the former director of the Doris Duke Conservation Scholars Program at NAU, the Grand Canyon Semester at NAU, and the Summer Conservation Experience. She holds a doctorate in ecology from Colorado State University where she served as a National Science Foundation GK-12 fellow for several years.

PART ONE: WHY FIELD STUDIES? WHY THIS DOCUMENT?

WHY FIELD STUDIES?

At the very time our society struggles to adapt to changing climate, respond to loss of biodiversity, and respond effectively to other environmental challenges, the next generations of scientists and policy-makers are increasingly excluded from the primary laboratory for understanding these issues – field-based research and education. Field education—studying plants, animals, and landscapes—provides foundational learning for ecologists and environmental scientists, and also for inquiries in humanities, social sciences, and education. Observing nature is the touchstone for understanding how life works. The value of field experience lies in multiple realms: field experiences create better science, better scientists, better citizens, better people and thus has implications for the human/nature relationships that are the underpinning of sustainability. Field studies serve as the grounding for theoretical constructs, and field experiences often force observers to question, and at times re-evaluate, their assumptions about how the natural world operates.

But in many institutions educational opportunities for field study have decreased dramatically in the past couple decades—in many cases, due to either administrative misconceptions about liability and risk, or a lack of understanding that although these courses are more expensive to run than a classroom experience, the educational benefits are well worth the investment of time and money. This decrease in field studies can potentially have far-reaching and critical impacts on academic training, creating a skilled workforce, and, more broadly, on the environmental awareness of the public at large.

Research has shown that there are significant and positive educational benefits gained by students that participate in field studies (Fleischner et al., in press). Field studies provide unparalleled opportunities for development of intra-personal and inter-personal skills that are the foundations of professional leadership. Substantial evidence exists to indicate that fieldwork offers learners opportunities to develop their knowledge and skills in ways that add value to their everyday experiences in the classroom. Specifically, fieldwork can have a positive impact on long-term memory due to the memorable nature of the fieldwork setting. Effective fieldwork, and residential experience in particular, can lead to individual growth and improvements in social skills. More importantly, there can be reinforcement between the affective and the cognitive, with each influencing the other and providing a bridge to higher order learning (Rickinson et al. 2004).

WHY THIS DOCUMENT?

This document offers a proven approach to successful management of risk for field programs—applying lessons from the field of adventure education to the field of environmental field programs. Organizations and administrators are often unaware that there are effective and well-accepted practices for managing the risks of associated with field studies. Too often, administrators attempt to ensure that their institution incurs no liability by choosing not to allow students to participate in these types of educational experiences. Unwittingly they embrace the profound risk of their students being poorly educated.

No organization can guarantee a safe experience for their students: “safe” is defined as free from harm, and very few situations provide this level of safety. Risk management is a much more accurate and useful term to use in this context than the word safe, which implies a logically impossible level of protection, even in a campus setting.

People and organizations manage risks every day. Looking both ways, and choosing a time to cross to the other side of a street when an oncoming vehicle will not hit you, is often an effective way to manage the risks involved in this activity. This is the case for field activities as well. Take hiking for instance. The risks of twisting an ankle is managed by briefing the students about how to manage this risk before they engage in the activity and by asking them to wear proper footwear. It would be ludicrous to choose never to cross the street and the same is true for not allowing hiking during field studies. Instead of not allowing an activity, one considers the risks involved and manages them effectively. It is irrational to prohibit students from engaging in profound educational experiences that can provide them with enduring lessons, simply because these activities have risks that need to be managed.

Fleischner, T.L. and 12 co-authors. In Press. Teaching biology in the field: Importance, challenges, and solutions. BioScience.

Rickinson M, Dillon J, Teamey K, Morris M, Choi MY, Sanders D, Benefield P. 2004. A Review of Research on Outdoor Learning. Field Studies Council Occasional Publication 87. Field Studies Council, National Foundation for Educational Research.

PART TWO: TEMPLATE FOR A FIELD STUDIES MANUAL

HOW TO USE THIS DOCUMENT

Part Two of this document provides a template for a field studies manual by demonstrating the topics often included in such a manual, and sharing actual wording that can be used by an institution that offers—or would like to offer—environmental field studies. Language from this template can be borrowed directly, but each institution must adapt the language to address its specific concerns. (This may involve adding or deleting sections.) The remainder of this document covers topics often covered in manuals of this nature with example of policies and procedures to help the reader gain a greater understanding of one of many ways these topics can be approached.

LIMITS OF THIS DOCUMENT

This document is intended to be used as one of many reference materials, along with competent consultants, for educational organizations to author their own policies and procedures designed to appropriately manage the risks inherent in working in field settings with students. We make no claim that this document is complete or that the examples provided are appropriate to use without being extensively scrutinized and revised to fit the mission of the individual organization, and the training of the instructional staff.

A field manual that communicates activity standards and other important expectations to instructors and students is only one aspect of a well-run organization's risk management plan. Other important considerations include, but are not limited to, staff training and supervision, student screening, program activities, emergency procedures, logistics, facilities, transportation, and communication. Organizations must clearly communicate the risks involved to the students who choose to participate in the activity, so the student can acknowledge that they understand those inherent risks that are a part of the activity, and are freely choosing to participate.

No field manual can take the place of having well-trained field instructors working with students who have been trained to work as partners in the risk management process. In the field, the ultimate responsibility rests with the good judgment of instructors and trained students to modify plans due to changes in weather, schedule, terrain and individual and group behavior.

There are many resources available for organizations and instructors to become better educated in field risk management. We recommend the Association for Experiential Education's standards, and accreditation program for a more complete description of important topics to consider when designing and operating field programs (http://www.aee.org/standards2). We recommend the Wilderness Risk Mangers Conference for the training of administrators and instructors (https://www.nols.edu/en/courses/risk-services/wilderness-risk-management-conference/wrmc-resources/). For additional examples of policies and procedures we recommend the book *Administrative Practices of AEE Accredited Programs*, by Hirsch and Sugerman (2008).

PURPOSE AND SCOPE OF THE MANUAL

The mission of the individual organization as well as expectations around how the manual is to be utilized is most often offered in this section.

The safety objective of this organization is to prevent serious injury or death. Courses appropriately match field activities with educational objectives and foster an educated risk management awareness among participants that goes deeper than the guidelines and standards stated in this Manual.

This organization recognizes that not all elements of risk can be eliminated all of the time in any setting, and many risks are inherent to the activity itself. This organization chooses to acknowledge and manage risk in a proactive manner.

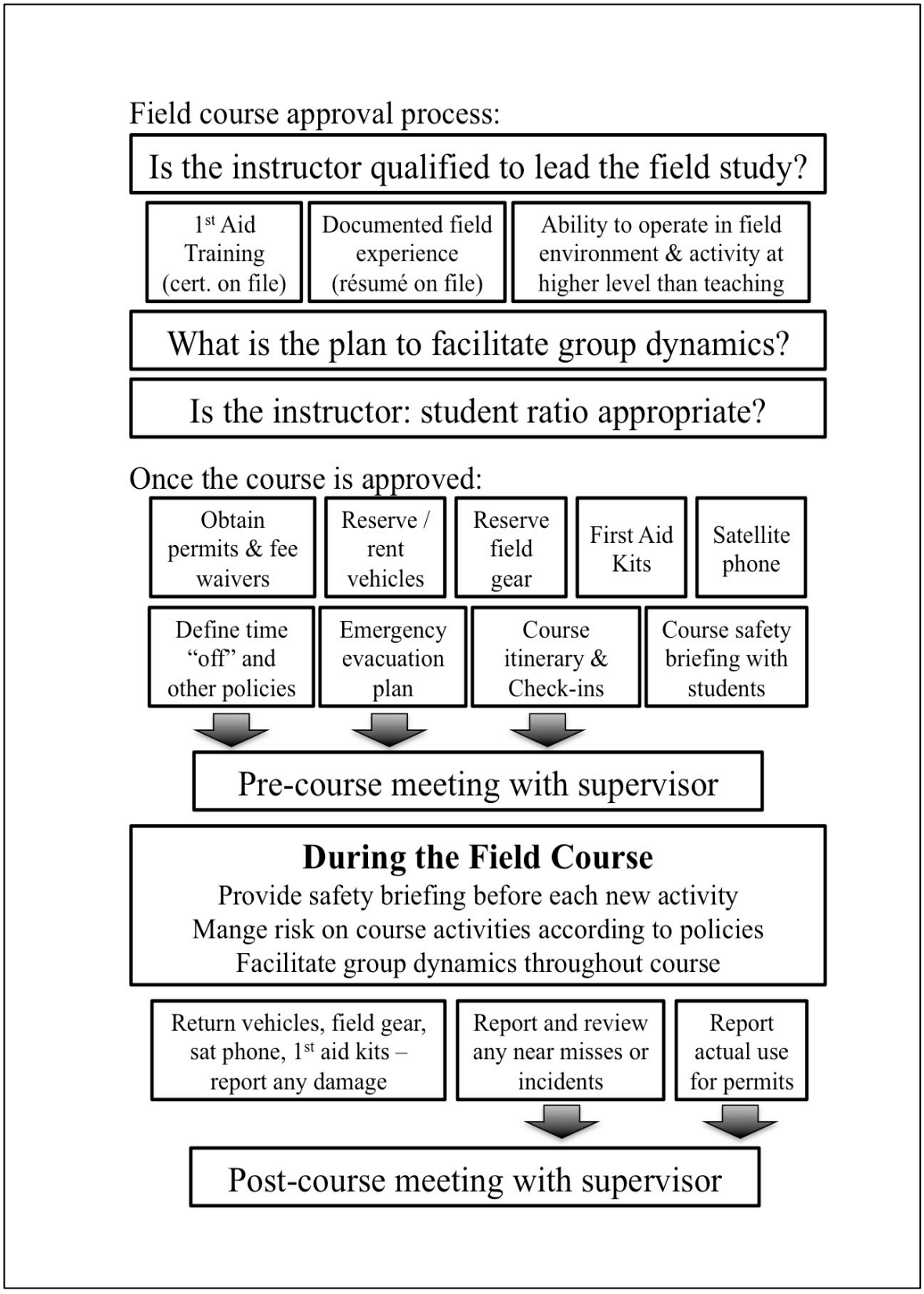
Risk management and sound judgment are integral to the field-based experiential education process used by this organization. They are woven into all field activities and modeled to students by the words and actions of each instructor. Risk management involves not only precautions to prevent accidents, but also a "what if" approach toward every experience.

This manual for this organization's field courses was developed to communicate standard practices for field activities and the commitment of this organization's community to heightened safety awareness. **It is required that instructors carry this manual with them to use as a reference during a course.**

No manual can entirely foresee every possibility. If the guidelines recommended in this manual are not the best way to manage risks in the situation you find yourself in, use your judgment to inform your actions, document and report the situation to the <appropriate administrator> so this organization can continue to evolve its practices.

Instructors are encouraged to stop any activity if they become concerned about the activity itself, the students they are with, or their ability to supervise effectively because of illness, fatigue, or student behavioral issues. Thoughtlessly adhering to a schedule is a risk in itself.

Figure 1. An overview of steps necessary to approve the field component of a course



I. QUALIFICATIONS FOR TEACHING FIELD COURSES & ACTIVITIES

It is expected that organizations clearly document the level of training needed by staff in order to supervise specific field activities. This section details the organization's minimum expectations for instructors when conducting off-site activities.

When teaching off-site, instructors are expected to be competent in many areas including academics, group dynamics, skills instruction, and risk management. Instructor teams are often used to maximize the safety and academic quality of courses. When teaching in the field, instructors should be able to facilitate course activities within the risk management and academic objectives of this organization. The ability to achieve these objectives depends, in large part, on the instructor's experience, sound judgment, and skills. Some organization hire one instructor that possesses the knowledge to deliver the academic content of the course while the other instructor is expert in the competencies needed to manage students in the field.

A. Approval to Teach Field Courses

All Instructors are to be approved to teach field courses by (the appropriate administrator at this organization). Resumes are to be filed with the organization's office detailing the Instructor's qualifications for teaching field courses. Copies of instructors' First Aid and CPR training certifications are to be on file with the appropriate office.

B. First Aid Training

All instructors conducting off-site activities involving travel to locations more than approximately one-hour travel time to a medical facility (a primary care facility) are required to be trained in, and currently certified at the level required by the institution. Frequently it is Wilderness First Aid and CPR for travel time between one and four hours, and Wilderness First Responder and CPR for over four-hours. Considerations used to decide this includes, but is not limited to: terrain and route difficulty, evacuation plan, length of trip, type of group, and type of activity.

Some courses require additional risk management training and experience, including environmental and activity-specific first aid and risk management skills. When applicable, these are listed under Section XIII, Activity Specific Standards and Considerations.

C. Qualifications for Approval to Supervise Field Courses and Field Trips

Instructors will be qualified, by their training and experience, to teach the curriculum and achieve the academic goals of the specific course they are hired to teach. All field course sites and activities, from urban field trips, to international travel, to car camping in developed campgrounds, and backpacking in National Parks, pose risks that must be managed. The following general qualifications for activity management apply to all environments and activities. For more information about environment and activity specific procedures, please refer to Section XIII of this manual. Instructors leading field courses should:

1. Possess the experience necessary to exhibit sound judgment in the environment and activities of the course.
2. Have a practical understanding of pertinent environmental hazards and strategies for managing these risks.

3. Have practical understanding of pertinent political and cultural risks, and have strategies for managing these risks.
4. Have a sound theoretical and practical knowledge of the skills taught in the course and be aware of pertinent advances in technology, environment, culture, politics, and procedures.
5. Be able to operate in the same environment, at a higher level of difficulty or complexity, than that required by the activities they are facilitating for students.
6. Possess knowledge and experience in procedures related to emergency management and rescue pertinent to the activity.
7. Possess the experience necessary to effectively facilitate environmental, risk management, and technical skills instruction for the group.
8. Have knowledge of and commitment to minimizing cultural and environmental impacts of course activities and the ability to teach an ethic of sensitivity, stewardship, and social justice.

D. GROUP DYNAMICS FACILITATION

Group development, awareness of group process, and proper handling of group pressures help maximize the academic quality and safety of any field course or activity. Effective communication skills are an essential part of a successful field experience. Many accidents, injuries, illnesses, and difficult situations can be avoided with clear, honest communication about what is expected and the risks that need to be managed. When facilitating off-site activities, instructors should work toward:

1. Fostering a sense of trust, respect, and support within their group, leading to an atmosphere of emotional safety.
2. Creating a setting in which all students clearly understand the course related risks and expectations, and accept responsibility for their choice to participate.
3. Addressing the needs and issues of the group and its members, and matching course activities to the physical and emotional abilities of their students.

E. INSTRUCTOR/STUDENT RATIOS

Course curriculum, environmental factors, international political factors, remoteness of activity site, instructor qualifications, permit, and insurance requirements must be considered on a case by case basis in determining appropriate staff to student supervisory ratios.

1. Use of Supervisory Teaching Assistants in the Ratio—Some of our advanced students meet the above criteria C for supervising field activities as demonstrated by the work they have done for organizations such as Outward Bound and NOLS or in the recreational guiding industry. When student teaching assistants are highly skilled in an activity, they may be used, under the active supervision of the instructor(s) in charge, as instructors in the instructor-to-student supervisory ratio for field activities.
2. Teaching Assistant Qualification Screening—Determining whether a prospective teaching assistant is suitable to be considered in the staff to student supervisory ratio is the responsibility of the designated instructor. This determination is based on information gained from interviews with candidates, reviews of the Teaching Assistant Application Form (if applicable), and comparing the applicants' background skills with established activity specific standards. In some cases, field observations are used to determine actual skill levels. The instructor in charge may promote or demote a student as teaching assistant at any time based on the student's judgment and performance.
3. Insurance Requirements—Our liability insurance provider, and in some cases land management agencies, require us to maintain their established minimum instructor-to-student ratios for

supervising specific activities. This organization has adopted guidelines for a minimum standard, and for many activities we surpass these guidelines. Please refer to Section XIII of this manual for minimum supervisory ratio requirements for specific activities.

F. Developing an Effective Working Relationship within an Instructor Team

There are as many styles of co-instructing as there are pairs of instructors. Each relationship is different because of experience, expectations, philosophy and personality. The vitality and strength of each pairing can be enhanced and maintained by allowing each relationship to develop clearly. For this to happen, it is imperative that each individual take the time to understand the expectations, strengths, likes and dislikes of the other. At the heart of an effective instructor team relationship is the ability to give and take constructive feedback. The beginning of a course is the time to develop this ability. (The process outlined below is also easily modified to form the basis for a first conversation with a T.A.). Prior to the start of a course, co-instructors should discuss:

1. Personal strengths and areas for improvement: identify them for each other and discuss how to best use each other's strengths and support the other's areas of improvement.
2. Personal values and goals, which affect the course.
3. Positive expectations and hesitations about working with each other.
4. How to assess interpersonal and group skills of the students.
5. Communication between co-instructors, including:
    a. Decision making process
    b. Conflict resolution
    c. Communicating changes
    d. Giving and receiving feedback
6. Establishing clear expectations for student behavior in **field settings, urban environments, foreign countries** and enforcing the **drug and alcohol policies**. Decide and tell the group what the consequences will be for violating these common agreements and policies.
7. Personal needs and preferences concerning
    a. Preparation lead-time
    b. Organization
    c. Pacing
    d. When and how to add to the other's presentation
    e. What to do when disagreeing with what is presented
8. What each tends to do when stressed or angry.
9. Problems previously encountered in working with a co-instructor and how they were resolved, as well as any part played in creating the problem situation.
10. In what ways will the co-instructors share/not share the course? (How much ownership does each instructor have in the direction? Who will take overall responsibility for risk management in different situations?)
11. What professional development goals does each instructor have, and how can their co-instructor support their achievement?

G. Pre-course and Post-course Meeting with a Supervisor

A pre- and post-course meeting with a supervisor should be routinely scheduled for each field course.

1. Instructors should complete and bring to the meeting all special paperwork associated with field courses.

2. Areas to discuss include how the following aspects of the course went: academic goals, safety concerns, professional development goals, exceptional and challenging students, working relationship of the instructors, course area, interaction with land management agencies, and recommendations for the next time the course is run.

II. THE SAFETY BRIEFING FOR FIELD COURSES ACTIVITIES

Risk management in a field setting depends a great deal on the attitude toward safety and risk management that instructors develop with the students in their class. This attitude is often called an "expedition mentality." An expedition mentality considers risk management with every decision; it recognizes that an action that may be acceptable for a private individual may be unacceptable for a group affiliated with this organization in a wilderness or urban setting. Safety briefings are one way of fostering an expedition mentality among the student group, and help to highlight the serious consequences of any accident or injury that might occur.

Safety briefings should be conducted in preparation for any course activity that poses a potential risk (e.g., lighting a stove for the first time, spending time in an international setting, hiking in the rain, hiking over loose rocks, etc.). They are crucial when students are being introduced to new activities and skills, and are also used to reset an appropriate tone at the beginning of a day or after a long break.

A. The Goal of the Safety Briefing

The goal of the safety briefing is for each group member to:

1. Understand the skills involved in identifying and managing the risks that will be encountered on the trip.
2. Consciously accept responsibility for his or her choice to participate in the activity.
3. Understand and commit to the guidelines and procedures for participation in the activity, as described by the instructor.
4. Fully understand the ramifications of an accident or incident and what actions would be taken.
5. Ensure that the student group supports this organization's safety objectives.

B. The Content of the Safety Briefing

Instructors should ensure that the safety briefing includes the appropriate points from the following list:

1. A detailed introduction to the activity and how it fits into the educational objectives of the course.
2. A detailed explanation of the route, itinerary, activities, and hazards involved.
3. A clear and detailed explanation of any cultural or political considerations that might relate to the safety and effectiveness of the group.
4. The opportunity for group members to ask questions, and to express and discuss their concerns.
5. Clear communication of instructors' expectations of the student group.
6. Individual and group commitment to participate.
7. Clear explanation of the emergency response plan.

III. INTERNATIONAL COURSES

Instructors teaching international courses need approval from the appropriate supervisor and will schedule a pre-course meeting to discuss the particulars of their course.

Courses traveling outside the United States offer unique opportunities and risks to be managed; these courses should be run within the cultural, legal, and practical context of the countries in which they operate. In order to integrate this organization's course with local cultures in an effective manner, the following general guidelines should be followed.

When leading an international course, instructors need to be aware of:

1. Changes in the political and social conditions that prevail in all of the countries through which instructors and participants travel.

   Explanation: This is best done through consulting with the US Department of State, the United Kingdom's Foreign Commonwealth Office, and a local contact in the country that is being visited. The Australian and Canadian versions of the U.S. State Department are worth consulting as well. The Overseas Security Advisory Council (OSAC) is also a good resource.

2. Areas in the country that are to be avoided because of rampant crime or political unrest.

   Explanation: This is best done through consulting with the US Department of State, the United Kingdom's Foreign Commonwealth Office, and a local contact in the country that is being visited. OSAC Crime and Safety Reports may be found through an Internet search: "Specific Country", Crime and Safety Report.

3. The medical considerations particular to the countries through which instructors and participants travel.

   Explanation: Instructors have a general knowledge of the health issues of the country and are also aware of particular plants, animals, and/or diseases that may have an effect on participants. Instructors and participants are informed of any immunizations required and CDC travel information is consulted. Currently the only vaccines that are "required" are Yellow Fever and Meningitis (for the Haj). Others are strongly recommended particularly for Low/Middle Income travel (Hep A, Hep B, Typhoid) and others. The recommended vaccines dependent upon where you go (Japanese Encephalitis, Rabies, etc).

   Students should be informed about the types of exposures they are likely to encounter and the current practices for avoiding disease. People have been paralyzed by schistosomiasis and have died of malaria on international programs, both of which are preventable.

4. Protocols that need to be in place, including notification and evacuation procedures for emergencies in the country, and contacts with the appropriate U.S. and local officials that need to be made ahead of time. Students should routinely be registered at the US Embassy of the country being visited.
5. The country and culture(s) in which the course is operating, and how these affect planning activities.

Explanation: These considerations include but may not be limited to: a) being aware of and sensitive to cultural morés; b) knowledge of local customs; c) dress code; d) bringing - or not bringing - certain equipment.

6. Considerations related to providing adequate and appropriate nutrition for the location.

Explanation: This includes but may not be limited to: a) compensating for diet change because of available food in the country of travel; b) bringing water filters or other appropriate water purification methods.

7. The need to use good judgment when choosing transportation services.

Explanation: Many factors go into evaluating whether to use a transportation service. These include but are not limited to: what practical alternatives are available to choose from, whether the company has the proper licensing and certifications, condition of the vehicles, hazards inherent in the route traveled, the length of time the driver is permitted to operate the vehicle, etc. According to the U.S. State Department, motor vehicle accidents account for almost 50% of all US citizen deaths abroad by non-natural causes. If in a high-income country, they can locate a reputable transport service pretty readily. If in a low/middle income country, they may need to do a lot more research.

To facilitate the communication of the above information to students and this organization, the instructor in charge of the course, or the sub-contracted program offering the course will:

Create a substantive course guide containing the above information and other course specific information (example course guides may be available from the appropriate office). A pre-course meeting between the supervisor and the instructor in charge of the course will be scheduled prior to course registration to review the course guide and to discuss how any risks specific to the course will be managed.

IV. "TIME OFF" DURING FIELD COURSES

Field activities, and the students participating in them, are supported and sponsored by this organization. This means that there are no "off" days when a group member can choose to do whatever he or she wants. Participants are required to follow this organization's policies at all times during a course. However, downtime within appropriate established guidelines is encouraged.

A. "TIME OFF" IN A WILDERNESS SETTING

In remote settings, accidents due to poor judgment during "time off" can lead to severe problems for the group and this organization. For example:

A student decides to go bouldering up a side canyon during an unstructured afternoon on a field course, something she does quite often in town for recreation. She misjudges a foothold, falls, and breaks her leg. In town she would go to the hospital and get it taken care of. On this field course, the group has the difficult task of evacuating someone with an injury. The course is changed dramatically, and this organization faces the possibility of a lawsuit as well as the tremendous financial cost of the evacuation.

B. "TIME OFF" IN AN URBAN SETTING

Poor judgment used during "time off" in developed settings can lead to accidents, as well as socially and ethically sensitive issues. For example:

Students are given the afternoon "off" with no guidelines while on a "day off" in a city. A few students get drunk and walk around barefoot. While walking, a student cuts her foot on a piece of broken glass and attracts the attention of the local authorities. In this situation, the course schedule is negatively impacted and the reputation of the organization is diminished.

C. Guidelines for "Time Off" During Field Courses

It is unrealistic to think that students and instructors can maintain their energy levels during long field courses without some "time off." Scheduling "time off" while away from town is appropriate as long as students are provided clearly defined guidelines and limits for their behavior. Instructors need to present a briefing regarding "time off" that expresses their expectations and the rationale for these limits. This briefing should include:

1. Clear definitions of where students may and may not go.
2. Clear explanations of acceptable and unacceptable activity and behavior.
3. A clearly defined system, such as a check-out/in board, for keeping track of where students are, what they are doing and when they will return.
4. It is often unacceptable or advisable for students to travel alone. Three people are a commonly recommended group size during "time off."
5. Time and place of group reunification.

V. DRUG-FREE WORKPLACE AND ORGANIZATION POLICY AND SEXUAL HARASSMENT POLICY

Each of these topics should have a section devoted to them that clearly communicates an organization's existing policies in these areas.

VI. COMMUNICATION WITH THIS ORGANIZATION DURING FIELD COURSES AND OFF-SITE ACTIVITIES

It is critical that this organization's personnel are aware of the whereabouts and activities of our course participants. For that reason, itineraries for off-site activities must be on file. In the event that this organization should need to contact a student or instructor in the field, the program's office must know the itinerary of each course, as well as the next possible time and location of communication with this organization. In the event of an emergency affecting a course while it is off-site, all information about the emergency response should be centralized through the appropriate office. The following systems have been established to ensure the maintenance of effective communication between field courses and this organization.

A. Itinerary

All courses must file an itinerary before leaving. The itinerary should indicate who is on the trip, each student's emergency contact, when, where and how the group could be contacted in an emergency, the closest EMS facilities and other relevant information.

B. Routine check-in

For courses taught entirely in the field, the itinerary should also include scheduled call-in appointments. The call-in appointments may be scheduled for a time range, rather than an exact hour (e.g., within the third week of the course).

C. Change in Itinerary

All significant changes in itinerary should be reported to the program's office as soon as possible (e.g., weather delays a field trip).

D. Incident Notification

This organization will be contacted as soon as phone contact can be made whenever an injury or illness requires medical care or in any situation where an outside agency is contacted. This organization will also be contacted whenever a situation occurs on a field course that might trigger a concerned call from a student to a parent and consequently from that parent to the program's office.

During normal business hours, the organization's main number will be called. *During off hours* the emergency cellular phone for around-the-clock communications should be used. ***Call: <provide number>.*** If this person is unreachable, go to the next person on the Emergency Phone Number Sheet, which is always carried in the first aid kits.

1. Reporting Incidents—The following emergencies should be reported to this organization IMMEDIATELY:
    a. A fatality.
    b. A life-threatening injury or illness.
    c. Lost persons should be reported to us within 24 hours. The instructors should determine the time of reporting.
    d. A robbery.
    e. A student goes to a medical facility.

Instructors reporting emergencies should convey the information detailed on the ***Emergency Information Checklist*** **provided at the end of this section (VI), Item No. 4 (and carried in the First Aid Kit)**. When reporting an emergency by phone, instructors should have the person they are speaking with write down all the important information, and repeat it back to them. They should also clearly state how and when the next communication should take place.

2. Emergency Coordination—ALL information should be centralized through the appropriate supervisor. Information is not to be given out by employees of this organization who have not been authorized to do so by the appropriate supervisor.
    a. When prudent, notification of law enforcement agencies or medical facilities can be handled by the instructors in charge of the course. Instructors should communicate accurate information to this organization regarding their interaction with these agencies or facilities. For a more complex situation the appropriate supervisor should be called to help coordinate services.
    b. A person designated by the supervisor's office should give notification to parents.
3. Contact with the Media and Other Authorities—ALL media should be referred to the supervisor's office. Personnel not authorized to speak with the press should not:
    a. Release the nature of an injury or illness.
    b. Release the names of victims.
    c. Announce a death prior to notification of next of kin.

Ask students to delay talking to outsiders, or posting on social media until the victim's next of kin has been notified.

4. Emergency Call Information Checklist—The following questions should be asked on ALL emergency calls, in addition to the questions from the appropriate categories below. **The person receiving the call should write everything down and record the time and date of the call. SCHEDULE THE TIME AND LOCATION OF THE NEXT CALL BEFORE HANGING UP.**
    a. Who is calling?
    b. What is the course and primary instructor's name?
    c. Note time of call and date.
    d. Where is the emergency call from? (Write down exact location and phone number.)
    e. The person calling should remain at the phone for half an hour or until designated coordinator calls back.
    f. How dire is the situation? Critical? Serious? Moderate?

    For ACCIDENT / INJURY / ILLNESS

    a. Who is the patient?
    b. Where is the patient? Exact location if possible (map name and coordinates).
    c. What has been done? First aid? Evacuation started or completed? Use a standard "SOAP" (Subjective/Objective Assessment and Plan). Note method to describe the patient condition if practical.
    d. What is the condition of the patient?
    e. What happened? (Brief description)
    f. What assistance is needed? Transportation? Evacuation team? First aid supplies? Litter or backboard? Notification of EMS or helicopter? Notification of parents or guardian?
    g. Where are the other students on the course?
    h. Where can instructor/students be met if necessary? (Exact location)
    i. Arrange meeting or communication time.

    For LOST PERSON(S)

    a. Who is missing?
    b. Physical description of missing person(s): what clothing or equipment were they wearing?
    c. How long has the person been missing?
    d. Exact location of last seen spot (map name and coordinates).
    e. Where were they going or what was the circumstance or activity?
    f. What are the physical conditions; food, water and equipment resources; and experience level of missing person?
    g. What has been done? Hasty search? Involvement of other resources?
    h. What assistance is needed?
    i. Additional searchers? Transportation? Base camp support? First aid supplies? Litter or backboard? Notification of EMS, air support, major search coordination? Notification of parents or guardian? Media alert?
    j. Where are other students on course? (Exact location if possible)
    k. Arrange meeting or communication time.

VII. GUIDELINES FOR MANAGING EMERGENCIES ON FIELD COURSES

Organizations routinely design policies and guidelines to guide their staff when responding to emergencies in the field. Such emergencies are emotionally taxing and it is important for staff to have a reference to refer to when double-checking if they have taken the appropriate measures into consideration. The next two sections provide an example of how this can be designed.

A. Definition of an Emergency

Any situation that significantly threatens the safety of a group or any of its members. Examples include:

1. A serious accident, incident, or death.
2. A situation that has potential to endanger the group.
3. An illness or injury leading to the removal of a participant from the group.
4. A personal or behavioral problem causing a student to leave the group.
5. A situation that could cause this organization serious public relations problems.
6. A logistical situation that strands a group on the road or in a field setting.

B. Assessing the Situation

STAY CALM! In the event of an accident or injury these procedures should be followed:

1. Safety and security should be established. The immediate hazard potential to other group members should be assessed and managed.
2. Injury assessment and first aid should be performed. A good working knowledge of first aid procedures and sound judgment is essential.
    a. The most qualified person trained in first aid should be put in charge of the victim, while the overall management of the emergency situation should stay with the instructors.
    b. An *Incident/Accident Report Form* and *Patient Assessment Form* should be started immediately so that an outside caregiver will know exactly what the patient's condition is and how they have been treated.
    c. Communication is enhanced with outside healthcare professionals when a standard "SOAP" note method is used to communicate the patient's condition.
    d. The student group should be kept abreast of the situation and actively engaged in response procedures (e.g., setting up tents, etc.). Keeping the student group actively involved both eases their anxiety and aids in the efficient execution of response procedures.

C. Rescue Operations, Making a Plan and Contacting Help

In the United States, rescues or evacuations of participants with serious, potentially debilitating, or life-threatening illness or injury are handled by contacting **911** from the nearest telephone **(see Emergency Information Checklist, Section VI-D, Item No. 4)**. If a cellular telephone, radio, and/or signal mirror is available, this is the time to attempt to use them, but make a back-up plan as well. Experience has shown that technological advances in communication often fail when needed and should not be relied upon as a primary backup. Field instructors are charged with the responsibility of interfacing with pre-hospital care, emergency services personnel, law enforcement agencies, and medical facilities, as is practical and appropriate. Staff on scene should refer all communications with media, parents, guardians, and next of kin to the appropriate supervisor's office.

If an evacuation is necessary, or if outside help is needed, the following procedures should be followed:

1. Organize a party to go for help.
    a. Gather all pertinent information on the accident and the patient(s) condition.
    b. Review evacuation route or plan.
    c. Send at least two people for help; if practical send at least one instructor member (or teaching assistant, in the case of a field course taught by only one instructor).
    d. Before sending anyone for help, make a plan regarding where and when they should reunite with the group.
2. The following items should go with the party going for help:
    a. An emergency phone list.
    b. A written copy or summary of the accident and other information to be communicated **(see Emergency Information Checklist, Section VI-D, Item 4)**.
    c. Any items needed to ensure that the party going for help is self-sufficient (e.g., sleeping bags, food, shelter, money, etc.).
    d. A map marked with the location of the victim.
3. The party going for help should know the evacuation route and plan.
4. Once phone contact is established, write down and repeat important information and request the reporting party do the same. Before hanging up, establish when and how the next emergency communication will occur. Use the Emergency Information Checklist (see No. 2b above).

D. Evacuation Options

In certain emergency situations, a helicopter (or ambulance, if on or near a roadway) may be needed for the evacuation. Decide on a plan for evacuation before going for help, so that all relevant information can be considered. **Helicopter transport should be used only in situations where ground transportation would be too slow or dangerous for the patient.** Most often the choice to use a helicopter is in the hands of official emergency personnel that have jurisdiction in the area the group is traveling through. When discussing whether to recommend the use of a helicopter the following things should be considered:

1. Patient condition
    a. Are they in need of immediate medical attention?
    b. Is their condition rapidly deteriorating?
    c. Would ground evacuation aggravate delicate injuries such as spinal column or internal injuries?
    d. Emergencies in which a helicopter evacuation should be considered include severe bleeding and large open wounds; head, neck, or back injuries; large bone fractures; smaller fractures or joint injuries when circulation or nerve function cannot be restored distal to the break; severe burns; a severely shocked patient; acute abdominal patients; and any patient who is undergoing severe cardiac or respiratory distress.
2. Transport options
    a. Is vehicle access available?
    b. Would a pack-litter work for carry?
    c. Are other litter options available?
    d. What is the condition of the trails?
    e. Is the group physically able to carry a litter?
3. Topography and weather
    a. How far is the nearest landing zone?
    b. Is the weather stable?

E. Helicopter Use

If it has been decided that a helicopter evacuation is necessary, a landing zone should be found and a base camp set up. The party going for help should carry out the exact location of the victim and the landing zone. Whenever possible, the local law enforcement authority should coordinate getting the helicopter.

1. Landing zones—
    a. Must be at least 100' by 100'. Larger landing areas are required for multiple helicopters.
    b. Must be flat, and clear of all obstructions and any loose materials (e.g., group gear).
    c. Must be situated so that the helicopter has a landing path and a take-off path if possible (i.e., not in the bottom of a canyon).
    d. Must not be up against large cliffs.
    e. Must be laid out 100 to 200 feet downwind of the patient care area to prevent loose debris, dirt or gravel from blowing toward the patient.
    f. Must be well marked, if using clothes weigh them down so they do not get picked up in the rotor wash.
    g. Must have a wind direction indicator (stuff sack on a pole).
2. Safety around helicopters—Helicopters are very dangerous because of the spinning rotor blades and the winds (up to 120 mph) created by those blades upon landing.
    a. Never approach a helicopter unless the pilot signals to do so; always approach from the front, left front or right front, in a crouched position. Never approach from uphill or the rear of the helicopter.
    b. Keep loose objects and clothing away from the landing zone.
    c. If the litter is skid mounted (which is rare), make sure patient is protected from cooling due to prop wash, wind, and adiabatic lapse.

VIII. ACTION PLAN FOR INSTRUCTORS REGARDING ACCIDENTS RESULTING IN SERIOUS INJURY OR DEATH

The following guidelines are to be used with an *Incident Command Structure for Responding to Emergencies* form, a separate document strategically located with appropriate administrators, to ensure a rapid and appropriate response to incidents of this nature. See figure 2 for an overview of the actions required following a serious injury or death in the field.

PHASE 1: RISK MANAGEMENT

A. Initial Accident Response And Evacuation

The primary field instructor and/or the secondary instructor (depending on circumstances) are responsible for managing risks in the field and responding to accidents. If preventative measures fail and an accident occurs, their duties include:

1. Thorough and efficient wilderness emergency care.
2. Emergency notification.
3. Patient evacuation if appropriate.
4. Ongoing support for the group and the patient.
5. Recording (in writing) events and facts.

Once the situation is stable and this organization has been notified, further specific roles, tasks, and responsibilities need to be accomplished:

B. Patient Care And Support For Family And Friends

1. Contact with family and friends of the injured person will be done by this organization and should not be done by the instructor in the field.
2. Following initial emergency care, the field instructor is responsible for continued patient support and for documenting the details of the accident. These tasks include:
    a. Filling out *accident/incident forms*
    b. Getting witness statements
    c. Securing photographs if possible
    d. Facilitating hospital/emergency room visits
    e. Informing the injured student about proper submission of insurance paperwork
    f. Working with the injured student to determine realistic future options for continued participation.
3. Since circumstances may require the primary instructor to continue with a group in the field, follow-up responsibilities may be delegated to the secondary instructor or a representative designated by the supervisor. **If a fatality has occurred, the group should be supported by counseling and participate in a debriefing coordinated by the Incident Commander in the town where the organization is based before any decisions are made regarding how the remainder of the students should finish the course.** If follow-up activities are conducted by one of the field instructors, staff-to-student ratios may be reduced such that group activities need to be modified or canceled. These situations require consultation with the appropriate supervisor and/or the appropriate supervisor when possible. Acquiring a replacement instructor for the remainder of the course may or may not be feasible.

C. In The Event Of A Fatality

In the event of a fatality, the primary job of the instructor is to ensure the mental, emotional and physical wellbeing of the rest of the group. Instructors should not disturb the scene of the incident or move the body. An instructor and a few members of the group should stay with the body. If this is not possible for safety reasons, the body should be secured in place and its location carefully marked on a map. Only a coroner or police officer may give legal permission to move the body from the site. All this will be extremely difficult and will require the utmost in support and cooperation between the instructors and students. If possible, Instructors should contact the appropriate supervisor first, then local authorities, sticking to facts only and avoiding any speculation or admission of guilt. Instructors should direct all media questions to the person designated by the supervisor's office.

D. Full Written Account

1. In addition to standard forms (*Accident/Incident Report* and *Witness Statement*), the primary instructor (or secondary instructor, if more appropriate) should write a narrative account of accidents resulting in serious injuries or death. Serious injuries are defined as those that may involve long-term rehabilitation and care, or disability. Since determining the eventual outcome of an injury is impossible, instructors should treat any injury requiring medical attention as serious at the onset.
2. Written accounts should include:
    a. What happened?
    b. Where did it happen?
    c. When did it happen?

d. Who was involved, including names and contact information?
e. What circumstances led to the incident?

Information recorded in the written account should stick to the facts, since everything documented is considered "discoverable" and can be requested and obtained by a litigation attorney and potentially used against the instructor(s) and/or this organization.

E. PHOTOGRAPHS

Instructors should collect as many photographs as possible. Encourage members of the group who may also have cameras to document the scene, terrain encountered prior to the accident, injuries, emergency care, evacuation, group management procedures, etc.

PHASE 2: INTERNAL REVIEW OF INCIDENT

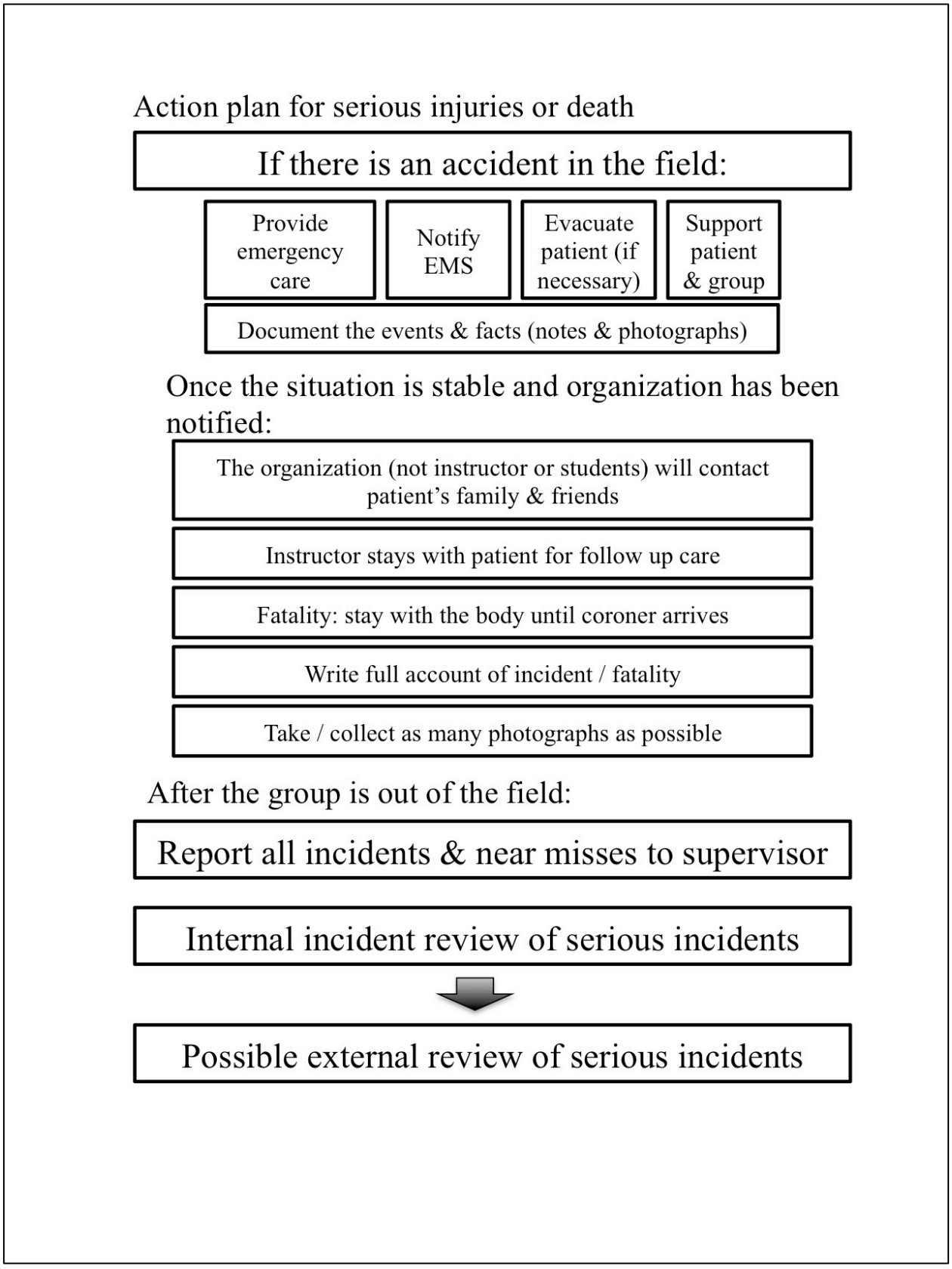
After the emergency situation has been dealt with it has proved to be an essential practice to do a review of how the incident was handled and what, if any lessons can be learned by the organization from the experience. After a very serious accident or incident organizations often bring in external consultants to help ensure that an objective review is accomplished. The following is an example of one way to manage such situations.

There will be an internal review of the accident that is set up by this organization's appropriate supervisor. During this review, all aspects of the course will be examined, including a detailed chronology of the events leading up to the incident, curriculum progression, risk management training of the participants, interviews with the students and instructors, enrollment procedures for the course, how the course was planned, and any other pertinent information.

PHASE 3: EXTERNAL REVIEW OF INCIDENT

All accidents involving significant injury or fatality to a staff member or student will be reviewed by an external review team composed of several experts who are familiar with the goals and mission of this organization and authorities in the activity from which the accident resulted. Consideration should be given to involving a consulting physician or this organization's medical advisor if questions of emergency medical care are an issue. Legal counsel should be consulted regarding all aspects of this organization's response. In selecting consulting experts, it should be realized that these individuals are often asked to testify as expert witnesses in court. The supervisor should initiate the external accident review process in consultation with this organization's field risk management committee.

Figure 2. Visual flow chart of necessary steps to take if a serious injury or death occurs in the field



IX. ACCIDENT AND INCIDENT REPORTING

It is a common practice to record and then analyze accident and incident data on an annual basis so that an organization can continually track and improve its risk management practices. The following is an example of one way to do this. Please see VI, section D1 for additional information.

This organization tracks all injuries, accidents and near misses (an event where a person could have been seriously injured but no injury occurred) that occur during any off-site activity. At the end of each year this data is reviewed to determine whether this organization should change any of its practices.

1. All injuries, accidents, and near misses should be recorded on an Incident/Accident Form, which is turned in at the end of the course to the Field Operations Support and Permit Coordinator. Data is compiled and analyzed annually.
2. Serious accidents and near misses should be reported, as soon as possible, to the appropriate supervisor.

X. GUIDELINES FOR AVOIDING BLOODBORNE PATHOGENS

Potential exposure to blood borne pathogens, specifically HIV (Human Immunodeficiency Virus), HBV (Hepatitis B Virus), and a host of others, must be considered a significant risk to participants and instructors during field programs and other activities. Exposure incidents can occur anytime there is a presence of infected blood or other body fluids that come in contact with another participant or instructor during course activities. The usual modes of transmission include exposure to blood and blood products, sexual contact, direct contact between lesions, and infected mother to newborn fetus. HBV can also be transmitted through prolonged and closely knit group (or household) contact.

A. GUIDELINES FOR EXPOSURE CONTROL

1. Educate Students—Students should be instructed about this organization's guidelines for exposure control.
2. Hand Washing—Aggressive and frequent hand washing should be emphasized. At a minimum, students and instructors should wash hands before eating, preparing or serving food; after going to the bathroom; and before and after donning latex gloves.
3. Avoidance, Glove Use and Other Protection—Direct contact with blood and other bodily fluids should be avoided. Appropriate gloves and protective clothing (that covers other parts of the body) must be used whenever engaging in circumstances of possible exposure. Eye protection (sun or safety glasses) should be considered when spurting or spraying fluids are possible. Hands and other skin surfaces should be aggressively washed immediately following exposure.
4. Open Wound Care—Open cuts, sores and abrasions should be covered with sterile dressings and bandages whenever possible.
5. Biohazard— First aid sites should be cleaned in a timely fashion using disinfectants if possible. Contaminated materials should be placed in a clearly marked "Biohazard" container (clearly labeled, triple bagged, taped closed, separated from other trash) and carried by or with the patient, or incinerated in a hot fire. All "Biohazard" materials that are carried out of the field should be incinerated or taken to a medical facility for proper disposal.

6. Medical Tools—Scissors, tweezers, pocket masks and other medical tools should be sterilized in boiled water before and after use, or thoroughly disinfected using a strong chlorine or iodine solution.
7. Sharing Personal Items—Sharing items of personal hygiene (toothbrushes, water bottles, lip balm, bandanas, etc.) should be avoided.
8. Pocket Masks or Face Shields—Performing CPR (cardiopulmonary resuscitation) or "assisted breathing" should be done using a pocket mask or face shield. These should be included in all instructor first aid kits. Staff should have quick access to one of these items at all times while in the field.
9. First Aid Kits— A generous supply of gloves must be included in the contents. Both instructor and hiker first aid kits should have gloves in an obvious, readily available location on the surface of the kit. **A simplified version of these guidelines should be carried in each first aid kit.**
10. Needle Points—Instructors should dispose of "sharps" (needle points) properly. After administering epinephrine by injection to patients with systemic allergic reactions, the syringe should be carefully placed (eyes on the needle) back into its plastic container. The container should be taped shut and clearly marked "Biohazard."
11. Diabetic Participants—Any participant using injectable insulin must carry his/her own clearly labeled, puncture-resistant container for used needle points.
12. Sharp Tools—Particular care should be exercised when using any type of sharp tool, object or utensil capable of inflicting blood-producing injuries.
13. Reporting Incidents, Testing, and Immunization—All incidents involving possible infection should be reported within 24 hours so that appropriate evaluation, testing, care and/or immunization can be started.
14. HBV Vaccinations—Staff who work in circumstances of higher risk, or in remote areas where HBV (Hepatitis B) immunization cannot be started within 24 hours of an exposure incident, should be immunized ahead of time.
15. Instructors—All instructors who wish to be vaccinated for Hepatitis B (HBV) should be encouraged to do so. This organization will pay the cost of the injection series.

XI. LOGISTICS OPERATIONS

A Field Operations Department supports the organization's academic, field-based courses integral to the mission of the institution. The staff in this department work to secure access to public and private lands; they research, purchase, and maintain equipment used in field-based settings; and provide logistical support for field courses including, but not limited to an inventory of maps and other supplemental resources. Procedures used to arrange for permits, the check out and maintenance of gear, and other similar policies are added here. What follows is an example of one way to do this. Smaller organizations sometimes ask field instructors to do these tasks.

A. PERMITS—NPS, USFS, BLM AND STATE LAND

Policy: **All communications with federal, state and local agencies related to this organization's permits must go through the office of Field Operations.** This practice allows these external relationships to be well managed and coordinated.

Pre-planning related to permitting is critical. It must be done prior to registration and any publication of registration materials (6 months to a year in advance). **Do not assume** an area you are interested in is

available for your use. It is critical for course areas to be available within the guidelines and regulations of the management agency and our specific permits.

All use is allocated by area and is calculated based on user days (1 student on public land for 1 day is 1 user day). All new field-based programming must be approved by this office to identify if access and equipment is available based on activity, dates, and amount of use.

Accessing public lands (i.e. National Park Service, United States Forest Service, Bureau of Land Management, Wildlife Refuge, Private [private is not public] and State Land) is a growing concern for academic/educational institutions nationwide. Land management agencies are inconsistent with their definition of academic and educational use of our public lands, therefore making permitting essential for this organization's courses using these lands as a classroom into the future. It is our responsibility as an institution of higher learning to be accountable for our use of public lands.

All field courses across curricular areas taking students onto federal or state managed lands or rivers, must submit a ***Projected Course Itinerary*** to this office prior to registration for any field trips to determine permit availability. There is a movement towards template itineraries for primarily field-based courses. Contact this office to see if such an itinerary exists for your course.

Field Operations does not plan field courses, routes, or itineraries. This is the work of the instructors. If an instructor is requesting to use an area this organization is not yet permitted, be prepared to do research, reconnaissance to the area, and prepare for a minimum of 180 days in advance (agency and area dependent). Information needed would include:

1. Dates of field component
2. Location and Itinerary – including managing agency and specific route
3. Curriculum related to area: Is this the only place the curriculum can be provided? If so - why?
4. Highlighted map
5. Syllabus

B. NPS—Educational Entrance Fee Waivers

The National Park Service offers Educational Entrance Fee waivers for Parks and Monuments. This information should be included in your ***Projected Course Itinerary*** and are applied for through Field Operations Assistant to centralize contact with agencies. These waivers do not cover campground fees. Last minute requests are not encouraged. Fee waivers need 4-6 weeks to process with the following information:

1. Entrance date and location
2. Exit date
3. Curriculum related to the park
4. Syllabus

C. Field Activity and Public Lands Use Reporting

Policy: **All reporting must be completed and returned to Field Operations within 2 weeks of the end of the enrollment period.**

All outdoor activities (backpacking, day hiking, car camping, etc.) pursued in conjunction with this organization are to be reported on the *Activity Log/Actual Use Form*, whether on public lands or not. This includes field stations.

Examples:

1. Field Station: Actual use reporting is not only used for reporting to land management agencies, but also to report activities to the insurance company and run risk management statistics. All visits to a marine field station incorporating skiff travel, snorkeling, sea kayaking, camping and hiking are to be pre-approved and user days reported.
2. Specific Grant Projects: If a class is involved with taking students into the field for grant-specific purposes and participants are engaging in outdoor-related activities (day hiking, camping, backpacking), this use needs to be pre-approved and user days reported.

D. Satellite and Cellular Phones

1. Requesting a Satellite Phone—Phones need to be reserved in advance by completing the *Projected Course Itinerary Form* or by completing *an Equipment Request Form* found on the organization website at <insert web address>. The phones are checked in and out by the Equipment Manager.
2. Usage Policies on Field-Based Course Uses—Satellite phones need to be reserved 4 weeks in advance. At peak times of the year we rent phones from a commercial vendor to meet demands due to limited inventory. Satellite phones are meant for emergency uses. Instructors who plan on using the phones for class logistics and other curricular needs should plan for this use in the course's budget and notify the Equipment Manager.

Appropriate uses include, but might not be limited to:

a. Limited class logistics (shuttles, weather)
b. emergency uses (evacuation, medical advice)
c. check-in calls
d. personal family check-ins (with prior approval)

Any damaged or stolen phones will be purchased in full by the course to replace the inventory.

E. Field Course Planning Checklist

The list below is meant to serve as a reminder to instructors of the basic logistics required in field courses. Forms referenced here are available online and found in Field Packets distributed prior to the enrollment period. Faculty, instructors and adjuncts are encouraged to review this list prior to departing for field courses and upon returning to campus.

1. **Before the start of the enrollment period, be sure to**:
    a. Pick up your Field Packet in your faculty mailbox.
    b. Review the contents of your Field Packet for all the appropriate permits and waivers for the class.
    c. Submit *Map Request Form* to Field Operations Assistant.
    d. Call the equipment storage area and schedule a check-out date and time.
    e. Schedule a pre-course meeting with the relevant supervisor.
    f. Review your updated copy of the *Organization's Field Manual* (annually).
    g. Submit copies of current WFR/CPR certifications to Field Operations.
    h. Confirm van and trailer request with Transportation Coordinator.
    i. Submit *Cash Advance Request* to the appropriate department.
2. **Prior to departure into the field, be sure to**:
    a. Complete Participant Agreement (if applicable) found in Field Packet and return to Field Operations.

b. Pick up van keys, gas cards and cash advance.
c. Complete *Itinerary Form* front and back and drop off at the appropriate location.
d. During the check-out of gear, schedule a check-in date and time.

3. **Post-Course Responsibilities**:
    a. Submit the following required paperwork to the Field Operations Office:
        i. Activity Log/Actual Use Report
        ii. Course Report
        iii. Incident/Accident Report
    b. Return gear to equipment storage area with instructors and entire class present.
    c. Clean van and return with a full tank of gas/fuel.
    d. Schedule a post-course meeting with the appropriate supervisor.

XII. FIELD OPERATIONS EQUIPMENT POLICIES AND PROCEDURES

A. Policy Statement

Field equipment is intended for official courses. Equipment is purchased, tracked, and maintained to support specific courses and general field course needs only. Requests to use equipment for other official activities must be by written petition and submitted to the Field Operations/Equipment Manager for review.

NOTE:

- Equipment is issued by **advance request only**.
- Equipment is limited – **please plan ahead**
- **Misuse of and/or negligence toward equipment will result in a charge**

Equipment inventory includes general car camping, backpacking and equipment.

B. Use Policy

The purpose of the equipment storage area and its infrastructure is to serve approved field courses/field trips by providing safe, high quality, appropriate equipment in a timely fashion to accommodate **planned** course outings. This is accomplished by exercising good record keeping skills, tracking, and the documentation of individual pieces of equipment.

1. All equipment is issued through a formal, documented check-out and check-in procedure to ensure quality, safety, and inventory control.
2. All equipment is inspected, repaired (if necessary), cleaned and maintained after each use by the field operations staff prior to its return to the working inventory (i.e., ready for course issue). All equipment is completely inventoried, assessed, repaired and maintained on an ongoing basis as it is checked in and out of the equipment storage area.
3. All students using equipment must be registered for the specific course to which equipment is distributed. The entire class must sign a *Group Responsibility Form*.

C. Checking Equipment Out and In

It is the responsibility of the instructor to be familiar with the specific equipment they will be using with their class in the field and to instruct students on the proper use, care, and maintenance of the equipment

in a field setting. All instructors checking equipment out and in must schedule adequate time to inspect all equipment before departure and upon return from the field. All students and instructors are required to be present at the time of equipment check-out and check-in. The equipment staff is available to assist in instruction on proper use, care, and maintenance when requested.

1. Check-Out Procedures
    a. Plan ahead. Equipment is limited, so filling last minute requests may not be possible.
    b. Complete the *Equipment Request Form* a minimum of two weeks in advance (preferably a month).
    c. Forms are available at the equipment storage area and on the website at <insert web address>.
    d. **Schedule a DATE and TIME for check-out in advance.**
    e. Be on time (lateness may require rescheduling).
    f. Allow at least 1 hour and up to 4 hours for boating trip gear appointments.
    g. Double-check equipment list for accuracy—**Instructors and students are accountable for equipment listed!**
    h. Check that all items are in working order.
    i. Check all kits for completeness.
    j. Instructors and all students must be present when checking equipment out and in.
    k. All courses must submit a signed *Group Responsibility Form* before leaving for the field.
2. Check-In Procedures

Schedule a DATE and TIME for check-in well in advance.

    a. Be on time (lateness may require rescheduling).
    b. All equipment returning to the equipment storage area must be checked in by Field Operations staff only. If no staff are present, no equipment may be returned.
    c. Allow at least 1 hour and up to 4 hours for boating equipment.
    d. All equipment must be cleaned prior to return (cleaning facilities are available at the equipment storage area).
    e. Return **all** equipment at the same time. (Check number against form.)
    f. Address issues of lost/damaged equipment.
    g. Receive "CLEAR" or pay charges as assessed by Equipment Manager.

D. Responsibility for Loss or Damage

Students and instructors are responsible for the equipment issued to their course. Equipment condition will be reviewed at check-in. The exact item(s) must be checked in.

1. Damage or loss of equipment due to negligence, misconduct, or misuse will result in a fee, charged to the individual(s) to whom the equipment was checked out, for the repair or replacement of the item(s). Damages from "normal" wear and tear, age, previous condition, or unavoidable circumstances will be considered the responsibility of this organization and no personal charges will be incurred.
2. Decisions concerning charges will be made by the Equipment Manager. Examples of chargeable losses include <insert examples>.
3. Instructors should make sure that students bring cash to the check-in for payment of lost or damaged gear.
4. Items checked out to individuals, such as helmets, wetsuits, paddle jackets, etc., will be the sole responsibility of that individual and loss or damage charges will apply individually.

5. If the Field Operations staff is unable to collect charges from a class at the time of de-issue, it is the instructor's responsibility to collect money from students and deliver it to the equipment storage area on or before the last day of class.

E. Conclusion

Advance planning is the foundation a successful field course. The equipment storage area must issue equipment for many field courses at the same time to accommodate the course schedules. This requires **everyone** to communicate their needs in advance and to keep scheduled appointments. With a little cooperation and a little planning, the Field Operations and Equipment Management staff should be able to precisely meet the needs of the scheduled curriculum. This policy and the *equipment storage area procedure manual* should help provide this organization with quality equipment and service.

For more information contact: <current contact info for head of equipment department>

F. Additional Equipment Policies

1. Employee and Student Use of Equipment (Non-course)—Employees and students may rent equipment to aid in the facilitation of personal development provided that they assume responsibility for proper use, care, and repair/replacement costs in the event of loss or damage. Not all equipment is available for this use. This rental program is contingent upon availability and excludes rock-climbing equipment.
2. Equipment Sales to Students and Employees—Field equipment accounts are meant for the purchase of equipment for this organization. Many of the manufacturers provide this organization with "Institutional" accounts that are **not** resale accounts due to lack of volume purchasing. Students should be encouraged to support local businesses when acquiring gear. This organization may also be receptive to loaning, renting, or selling used equipment to the students.
3. Damage to Personal Instructor Equipment—The organization in no way assumes responsibility for the damage or loss of instructor equipment used on field courses. Faculty and field instructors teaching a gear-intensive course are expected to supply their own specialized equipment. Potential instructor equipment needs are not included in the inventory amounts for specific courses.

   Instructors are encouraged to pursue their own professional purchase arrangements to reduce the costs of their personal equipment. If unavoidable damages occur, issues of compensation should be addressed to the Equipment Manager. Decisions will be based on individual circumstances on a case-by-case basis.

4. Damage to Personal Student Equipment—This organization in no way assumes responsibility for the damage or loss of student equipment used on field courses. Students should pursue insurance claims through their homeowners or renter's insurance policy, if applicable.
5. Transportation, Storage, and Filling of Propane—The field operations staff issues propane tanks to accompany stoves and lanterns. It is the responsibility of each course to buy propane. Propane tanks may never be stored or transported inside any college vehicles, trailers, or buildings Instead they should always be in well-vented settings!
6. First Aid and Safety Gear—First aid kit(s) appropriate to the activity should be carried on all field courses. First aid kits are divided into three types:
   a. **Van Kits**—these kits are appropriate for day trips and non-specific field activities (i.e., museum trips, etc.) Van Kits are kept in vehicles and are packaged in 50-caliber ammo containers with a plastic seal.

b. **Mandatory Instructor Kits**—these kits are mandatory for specific field courses (i.e hiking, backpacking, etc.) and courses of an expeditionary nature. These are first aid and trauma kits that must be carried always.
c. **Hiker Kits**—these are generally small first aid kits. These may be carried by students and are useful if the group is split into subgroups.
d. **Backcountry Drug Kits**—these prescription drug kits are intended for use on courses in extremely remote backcountry settings. These kits must be issued and carried by an instructor, and de-issued directly to the Equipment Manager. Any use of a drug kit must be documented on an accident report and a copy of that report must accompany the drug kit when it is turned in. Drug kits are stored in sealed plastic bags that double as tamper seals. These kits are only available for courses deemed appropriate by the appropriate supervisor and field operations/equipment staff.
e. **Additional safety and rescue equipment**—Stokes litters, river rescue kits, etc. may be required for specific activities.

XIII. ACTIVITY SPECIFIC STANDARDS & CONSIDERATIONS

When writing activity standards, the following topics are often addressed. Some of these topics would be communicated in the field manual; others may be more appropriately communicated in course-specific materials. Topics to cover include, but are not limited to: policies and procedures for the conduct of the activity, an explicit and appropriate curriculum for the activity, clear expectations for providing adequate instruction for the activity, requirements that describe what adequate supervision is needed for the activity, and other activity-specific risk management considerations. Supervisory ratios are determined by the type of activity and the level of training that the students already possess.

In this Field Manual, activity specific standards and considerations are expressed in the form of guidelines. "Guidelines" are generally accepted practices used when teaching various activities under normal circumstances. No manual can consider every possible situation that might arise in the field, and instructors at this organization are hired for their experience and good judgment. Therefore, it is expected that instructors will use their judgment when applying the safety guidelines listed in this section. Guidelines will be modified if the situation warrants. In fact, instructors could be compelled to break or ignore specific guidelines if circumstances are such that following them creates a higher level of risk. The primary objective is to manage risks effectively in order to have a safe and educational experience for students.

A. General Guidelines for All Field Activities and Camping

1. Instructors must be pre-approved by the organization and appropriate governing bodies to conduct specific field activities; examples include backpacking, rock climbing, rafting, working with wildlife or poisonous/noxious plants, etc.
2. If a course is team taught, one person in each instructor team shall be designated the primary instructor for emergency situations. This will be true even when the team shares leadership authority in most situations. This is usually done in a pre-course meeting with the supervisor and then communicated to the group to avoid confusion during an emergency response. The primary instructor will be the final authority for making decisions in emergency situations. Usually the more experienced person in an instructor team will be designated in charge of risk management. In some situations, this responsibility might be split up: one person in the instructional team could

be designated the lead instructor for emergency medical responses, and the other for the technical aspects of a course. This division of responsibility should be made clear before the course starts.

3. Only students registered for field courses or students serving as staff can participate in activities unless they have prior approval of the organization.
4. First aid kits appropriate for the activity should be present during all field activities. Students should know the contents and location of the first aid kit. Prescription medications that are part of the first-aid supplies may be dispensed only by the instructors.
5. Instructors should review student medical records and interview students concerning past or present medical problems at the beginning of each course to determine if there are questions that need to be addressed concerning a student's physical or emotional fitness to participate. Changes in a student's medical condition should be documented on the appropriate form, which is sent to the Office of the Registrar.
6. Students that are evacuated from a field activity or sport because of a serious physical injury need to be cleared by a medical practitioner before they can return to full participation. Students that are suspected of sustaining a concussion cannot continue participating in a field activity or sport until cleared by a medical provider.
7. Instructors should design and discuss an emergency plan with their student group. This plan should be updated as necessary. The plan should be age appropriate and include the possibility that the instructors are incapacitated. Examples include a discussion of "what ifs," rescue procedures, first aid, evacuation routes, communication points, emergency contacts, and clarification of personal and group responsibilities.
8. A safety briefing should be given to students at the beginning of any new activity to educate participants in risk management practices appropriate for the activity and environmental conditions (for more information see Section II).
9. Proper care and use of equipment should be a priority for all courses. Students should be trained in care and use of equipment because safety depends on gear functioning properly. Additionally, students are held financially accountable for any damage considered beyond normal wear and tear.
10. Students should be given adequate instruction in safe travel practices and Leave No Trace approved techniques for wilderness travel and camping. Examples include: stove use, dealing with heat and cold, shelter set up, latrine use, adequate hydration, responding to emergencies, etc.
11. Students should be given information about foreseeable conditions so they can bring appropriate clothing and equipment. For regularly taught courses, personal equipment lists should be given to students well in advance, so that they are able to acquire items which may not be available in the town the organization is based.
12. Adequate food and water should be carried on all outings. Instructors should supervise student food planning in order to assure that this is accomplished—especially on courses where students pack and cook their own food.
13. All field activities should be conducted in ways that minimize adverse cultural, social, and environmental impacts.
14. Lost and alone—Students should be briefed at the beginning of the course as to the importance of staying together as a group (or smaller groups if that is the way the course is organized) and what to do if they become separated and disoriented. Students should be instructed to do the following:
    a. Stay calm.
    b. If you don't know where you are, find someplace where you can be noticed and **stay put**! (e.g., large meadow, rock outcropping, lakeshore, path).

c. Make yourself visible. Wear bright colored clothing. Make noise, blow a whistle. If campfires are permitted in the course area and weather conditions safely permits, build **controlled** smoky fires by day, and **controlled** bright fires by night. Use SOS signal mirrors. Signal for help in a pattern of threes.
d. Establish protection from the elements.

15. When appropriate, educational debriefings that pertain to risk management are encouraged. These should include discussions of significant learning, application of learning, problems that occurred, and ideas for improvement.
16. Appropriate activities and terrain should be selected for the physical, emotional, and skill limitations of the participants.
17. During periods of diminished weather conditions, instructors should modify or cancel activities to meet the safety objectives of this organization.
18. Instructors have the responsibility of managing all aspects of group travel. A clear travel plan should be communicated to the students, with consideration given to pace, spacing, sub-group organization, designation of lead and sweep, load adjustments, rendezvous points, boundaries, and first aid kit and map availability.
19. When engaging in activities or teaching technical skills, an appropriate progression should be followed, with consideration given to warm-up activities.
20. Instructors should be familiar with the terrain or activity site used on a course. Familiarity is gained from field reconnaissance and/or consultation with other instructors or other knowledgeable authorities, including guidebooks, maps, articles, and course reports.
21. Instructors should complete and submit all course related paperwork and reports in a timely fashion.
22. Instructors will review all relevant sections of the field manual with their students early in the course.
23. The pacing of travel and activities needs to be adjusted to fit the particular needs of each unique student group.
24. Instructors should teach and groups should follow Leave No Trace (LNT) Principles on all field outings. LNT principles include:

B. LEAVE NO TRACE PRINCIPLES (LNT)

1. PLAN AHEAD AND PREPARE
    a. Know the regulations and special concerns for the area you will visit.
    b. Prepare for extreme weather, hazards, and emergencies.
    c. Schedule your trip to avoid times of high use.
    d. Visit in small groups when possible. Consider splitting larger groups into smaller groups.
    e. Repackage food to minimize waste.
    f. Use a map and compass to eliminate the use of marking paint, rock cairns or flagging for navigation.
2. TRAVEL AND CAMP ON DURABLE SURFACES
    a. Durable surfaces include established trails and campsites on rock, gravel, dry grasses, or snow.
    b. Protect riparian areas by camping at least 200 feet from lakes and streams.
    c. Good campsites are found, not made. Altering a site is not necessary.
    d. In popular areas:
        i. Concentrate use on existing trails and campsites.
        ii. Walk single file in the middle of the trail, even when wet or muddy.
        iii. Keep campsites small. Focus activity in areas where vegetation is absent.

    e. In pristine areas:
        i. Disperse use to prevent the creation of campsites and trails.
        ii. Avoid places where impacts are just beginning.
3. DISPOSE OF WASTE PROPERLY
    a. Pack it in, pack it out. Inspect your campsite and rest areas for trash or spilled foods. Pack out all trash, leftover food, and other litter.
    b. Deposit solid human waste in "cat holes" dug 6 to 8 inches deep at least 200 feet from water, camp, and trails. Cover and disguise the cat hole when finished.
    c. Pack out toilet paper and hygiene products.
    d. To wash yourself or your dishes, carry water 200 feet away from streams or lakes and use small amounts of biodegradable soap. Scatter strained dishwater.
4. LEAVE WHAT YOU FIND
    a. Preserve the past: examine, but do not touch, cultural or historic structures and artifacts.
    b. Leave rocks, plants and other natural objects as you find them.
    c. Avoid introducing or transporting non-native species.
    d. Do not build structures or furniture, or dig trenches.
5. MINIMIZE CAMPFIRE IMPACTS
    a. Campfires can cause lasting impacts to the backcountry. Use a lightweight stove for cooking and enjoy a candle lantern for light.
    b. Where fires are permitted, use established fire rings, fire pans, or mound fires.
    c. Keep fires small. Only use sticks from the ground that can be broken by hand.
    d. Burn all wood and coals to ash. Put out campfires completely, then scatter cool ashes.
6. RESPECT WILDLIFE
    a. Observe wildlife from a distance. Do not follow or approach them.
    b. Never feed animals. Feeding wildlife damages their health, alters natural behaviors, and exposes them to predators and other dangers.
    c. Protect wildlife and your food by storing rations and trash securely.
    d. Control pets at all times, or leave them at home.
    e. Avoid wildlife during sensitive times: mating, nesting, raising young, or winter.
7. BE CONSIDERATE OF OTHER VISITORS
    a. Respect other visitors and protect the quality of their experience.
    b. Be courteous. Yield to other users on the trail.
    c. Step to the downhill side of the trail when encountering pack stock.
    d. Take breaks and camp away from trails and other visitors.
    e. Let nature's sounds prevail. Avoid loud voices and noises.

C. DAY HIKING

The minimum staff to student ratio is 1:12. Younger or less experienced students require a higher supervisory ratio.

1. All general guidelines regarding itineraries, transportation, and instructor qualifications should be observed.
2. Instructors should complete required user-day forms for all day outings.
3. Instructors should be previously familiar with the area visited if the nature of the terrain is more than an easy walk.
4. Groups should generally travel together. Instructors should have a group management plan for keeping track of people if splitting the group becomes necessary.

D. Backpacking

Staff to student ratio is 1:12. Younger or less experienced students require a higher supervisory ratio.

1. Footwear that is adequate and appropriate to course environments and activities should be worn by participants.
2. Students should be informed about potential hazards and how to travel safely. Examples include difficult terrain, loose rock, rock fall and stream crossings.
3. All potentially hazardous stream crossings will be actively managed by instructors. See Activity Specific Guidelines for River and Stream Crossing, item E.
4. Food should be hung at night to prevent animals from getting into it. This is critically important in bear habitat if bear-proof canisters are not used. Constructing effective bear hangs is difficult and potentially hazardous for a variety of reasons. If available, helmets should be used by participants while climbing trees and raising and lowering heavy food bags, and by everyone in the area if objects (sticks or stones) are thrown to establish suspension points. Consideration should be given to using headlamps at dusk or after dark, and spotting individuals who are raising or lowering bags.
5. Campsites should be selected with a high priority on minimizing social, cultural, and environmental impacts.
6. Travel should be conducted in such ways as to minimize erosion of existing trails and prevent development of new trails.

E. River and Stream Crossing

1. River and stream crossings are potentially hazardous and difficult to assess. Initial considerations include recognizing that crossing a stream may be impossible and that backtracking or traveling great distances to find safe crossings may be necessary.
2. Assessment of river or stream crossings should take the following into consideration: water and air temperature; length of crossing; bank gradient and footing; current strength and water depth; students' and leader's capacity (comfort, skill, and size); available bridges or jumps; downstream hazards or obstructions; and effective spotting points.
3. Bridges (snow, downed logs, stepping stones or boulders) are usually preferable means of crossing swollen streams. Assessing the safety of bridges should include stability, height, slipperiness, and whether jumps are required. A hand line should be used if appropriate.
4. Staff should inspect, approve, and supervise all potentially hazardous stream crossings.
5. Packs, if not passed or shuttled, should be worn in such a way that they can be easily discarded.
6. Helmets should be worn if available on potentially dangerous crossings.
7. When using hand lines, students should cross on the downstream side of the line and not be attached by either a carabiner or knot. (This does not include the use of "tag" lines that are used in river rescue situations.)
8. Swift water crossings of greater than mid-thigh depth should not be attempted without support. Support includes hand lines, helmet and spotter, or other means.
9. Solo crossing of streams by students, where potential hazards exist, is not permitted. Consideration should be given to shuttling, passing, or lining packs; using spotters with throw ropes; third leg, tripod or human-line crossing techniques.
10. Suitable footwear should be worn for all crossings. Socks can be removed to keep them dry.
11. In course areas where potentially hazardous stream or river crossings are a feature, training for and discussion of safety considerations should occur before these hazards are encountered.
12. Snow bridges over deep, swift, or unknown conditions should be probed and initially crossed by the lightest staff member, without a backpack.

13. Mountain streams and glacial outflows may be safer to cross in the morning when the melt cycle is at its ebb.
14. Icy crossings are particularly problematic. Consider using crampons or crossing on submerged stones. Hand lines are beneficial under such conditions; ski poles or staffs may be helpful on stepping-stone or low-log-bridge crossings.

F. Independent Group Travel

1. Travel independent of direct instructor supervision must be pre-approved by the appropriate supervisor or designee for all courses.
2. When groups engage in independent travel on a field course, the terrain should be easier than they have previously demonstrated the ability to travel safely under supervision.
3. The primary instructor is responsible for determining a group's readiness for independent travel.
4. The primary instructor is responsible for clearly establishing emergency procedures to be followed during independent group travel.
5. Prolonged independent travel, involving more than 24 hours away from instructors, will be restricted to groups of no fewer than four students. In such cases, a designated student leader will be determined and approved by the instructors. This individual will be responsible for keeping the group unified, making sure decisions are made in a timely manner and clearly communicated, and serving as the group leader in case of an emergency.
6. Each group traveling independently will carry necessary safety and survival equipment, including a first aid kit and adequate supplies of clothing, shelter, water, and food.
7. The safety briefing for independent group travel will include a discussion of "what ifs" and a clear understanding of emergency procedures, communication options, and evacuation routes.
8. When conditions are difficult or student readiness for independent travel is questionable, instructors should more closely supervise their groups. Options include shadowing, frequent checkpoints, written guidelines, rendezvous, direct supervision through problem terrain, and/or having teaching assistants accompany groups.

G. Lightning Hazards

Lightning strikes account for more fatalities each year that any other natural occurrence. Mountaineers and others in the outdoors are at a significantly higher risk than the general population, since most buildings and automobiles are either equipped with or have natural lightning arresters. Although lightning strikes are unpredictable, there are precautions that can be used to reduce the risk of being injured in the outdoors.

1. Early in courses that are likely to encounter lightning, instructors should brief students on lightning hazards, avoidance procedures, and first aid.
2. When cumulonimbus clouds are building, or when thunder is first heard, instructors should evaluate the safety of the group's position and activity, and modify plans accordingly. Visible lightning should be considered a serious threat. When lightning is sighted, instructors and students should actively move to areas of greater safety.
3. Lightning retreats and camps during storm cycles should be planned to avoid direct strikes and surface currents. Areas to avoid include good conductors (such as metal sheds, pipes, wires, wire fences, and wet ropes), places that have obviously been struck before, high points, open areas, shallow overhangs and caves, summits, ridges, vertical crack systems, shallow drainages, areas of poor drainage, open water, shorelines at the edge of open bodies of water, tall trees, exposed tree roots, or any trees in open areas.

4. Areas of greater lightning safety include vehicles and locations with uniform cover (trees about the same height and rolling hills).
5. Signs of intense electron accumulation and high hazard levels include the following: hair standing on end, metal objects humming, ozone smell, lightning strikes within 30 seconds or less of accompanying thunder, or static electrical arcing. During these times, no matter how safe the zone, the following precautions should be followed:
    a. Group members should be dispersed at least 20 feet apart, but within sight and verbal contact of one another.
    b. Instructors should be split furthest apart at each end of the group.
    c. Everyone should be instructed to insulate themselves from ground current on a pack, pad, coil of rope, PFD, or other insulator and make themselves as small as possible in a position that can be comfortably maintained while minimizing contact with the insulation.
    d. Mountaineers or rock climbers trapped on small ledges should anchor themselves out of vertical crack systems until the brunt of the storm has passed. Surface current can cause involuntary spasms, which may result in subsequent falls and injuries.
6. First aid for lightning strike victims should include:
    a. Basic life support. Rescuers should be prepared to provide prolonged rescue breathing
    b. A full patient assessment and treatment of any injuries found
    c. Close monitoring for cardiovascular, respiratory or neurological complications
    d. Evacuate any person struck by lightning.
7. On open bodies of water, efforts to get on shore should precede any significant cumulonimbus buildup.

APPENDIX A: STUDENT ESSENTIAL ELIGIBILITY GUIDELINES

Every effort should be made to adapt courses for a wide variety of abilities. Unfortunately, not all activities can be adapted for everyone. That is why it is important to be clear about what physical and mental fitness levels are reasonable requirements for student participation. The following is an example of one way to document this.

STUDENT ESSENTIAL ELIGIBILITY GUIDELINES

The health, well-being, and welfare of students and staff and the effective education of our students are among our highest priorities. The wilderness environments utilized by many field courses are remote, dynamic, and physically and emotionally challenging. The nature of the living and traveling conditions in these environments combined with the challenging educational activities we conduct, require each student to be capable of dealing with the inevitable challenges and to be fully committed to working hard, taking personal responsibility, and to working effectively in the student group to achieve the goals of each course.

The Essential Eligibility Guidelines (EEG) are applicable for all students who wish to enroll in field courses and/or field activities. This organization is committed to providing equal access to educational experiences for all students. Within the abilities of the course instructors, and in careful consideration of safety issues specific to a given environment, this organization will make reasonable attempts to accommodate the individual needs and differences of each student as long as it does not compromise our ability to manage risks, or the educational experience of the other students.

In the guidelines listed below, a qualified person is one who can meet a majority of the EEG for participation in the program activity. If concerns arise about whether a student is a qualified person for a specific course the instructor(s) will bring the matter to attention of the Director of Risk Management for Field Activities (or designee) for discussion and resolution.

ESSENTIAL ELIGIBILITY GUIDELINES FOR PARTICIPATION ON FIELD COURSES

Section One lists the EEG applicable for this organization's field courses.

SECTION 1A: SAFETY AND JUDGMENT

Each participant must:

1. Be able to **independently** identify and recognize environmental hazards. These hazards may include, but are not limited to, falling objects/rocks, loose rock and unstable surfaces, rugged steep and uneven terrain, cliff edges, crevasses, moving water (fast or slow) such as rivers, creeks, surf, or tides; and potentially hazardous animals and insects.
2. Recognize and understand the hazards and risks posed by other course members, which include, but are not limited to, fatigue, state of mind, and actions that may influence judgment and decision-making.
3. Recall and understand hazards and risks previously explained by instructors.
4. Be able to effectively alert and warn others of potential or impending dangers such as falling rocks, aggressive animals, or other environmental hazards.
5. Be able to effectively signal or notify course instructors or other course members of personal distress, injury, or need for assistance.
6. Be able to do the preceding warnings and notifications up to a distance of 50 meters and in conditions with limited visibility such as in darkness or inclement weather or with loud background noise, such as high winds or while near roaring rivers.
7. Act reliably around above stated hazards to minimize risk even when not directly supervised.
8. **Independently** perceive, understand, and follow directions and instructions given by others to be able to successfully execute appropriate and perhaps unfamiliar, techniques to avoid hazards and /or manage risks. These directions may be given before the hazard or risk is encountered or may need to be given during exposure to the hazard/risk and out of necessity and practicality, are often given orally.
9. Be able to stay alert and to focus attention for up to several hours at a time while traveling in wilderness terrain, attending classes, or receiving instructions.
10. Be able to respond appropriately to stress or crisis such as when encountering large and/or potentially hazardous animals, severe weather, or a medical emergency.
11. If taking prescription medications, be able to maintain proper dosage by self-medicating without assistance from instructors or others (except possibly in emergency situations).

SECTION 1B: LEADERSHIP AND EXPEDITION BEHAVIOR

Each participant must:

1. Work effectively as a member of a team despite potentially stressful and difficult conditions. This may require problem solving on an interpersonal or group level as well as a willingness to accept differences.
2. Contribute to a safe learning environment—no verbal or physical inappropriate behavior of others is tolerated for any reason.

3. Be able to willingly and equally share responsibility with tent mates in daily tent group chores. Each student may not do an equal share each day, but over a period of several days each student should do a proportionate share. All students are learning the skills and being challenged by the conditions and activities; there can be no expectation that any other student will be able to continually assume a greater share of the work or that an instructor can continually focus a greater share of his/her energy and time on one student.
4. Effectively communicate ideas and concerns on an individual and group level.
5. Have the cognitive ability to learn necessary skills given normal time limitations of a field course.

SECTION 1C: ENVIRONMENTAL ETHICS

Each participant must:

1. Learn and then practice Leave No Trace camping and travel techniques.

SECTION 1D: OUTDOOR SKILLS: CAMPING

Each participant must:

1. Learn and competently perform the fundamental camping skills of finding a campsite, setting up a shelter, and cooking with a camp stove.
2. Remain adequately hydrated, fed, and properly dressed so as to remain generally healthy and be able to avoid environmental injuries such as hypothermia, heat illness, sunburn or frostbite.
3. Be able to perform, after being instructed, the above activities independently in cooperation with course mates without direct supervision.
4. Be able to move about the campsite in order to attend classes, attend to toileting needs, and contribute to camping tasks as necessary.

Section Two *lists the EEG specific to different course types or activities. All students must satisfy the EEG listed in section one and the EEG in section two that are specific to the course type.*

SECTION 2A: WILDERNESS HIKING COURSE

Each participant must:

At minimum, be able to travel over and negotiate through varied wilderness terrain with a backpack weighing up to or exceeding 60 pounds or 40%–45% of body weight. (Some hiking courses are designed with pack weights less than 60 pounds.)

Travel conditions may include, but are not limited to, rough, rugged, uneven steep and sloping terrain; human made and animal made trails; rocky terrain that may range from smooth bedrock to extensive areas of large rock boulders (boulder fields); needing to cross rivers and creeks without the aid of bridges up to three feet or more in depth; ascending, descending or traversing slopes covered in snow, rocks or vegetation; bushwhacking off trail through thick standing and/or downed vegetation. Any and all travel can occur during periods of inclement weather or nighttime hours.

Travel distances can range from less than one mile to more than ten miles in one day. On average, a month-long wilderness course travels up to or exceeds 100 miles during the course.

Travel duration can range from less than one hour to more than 12 hours in one day and occur on successive days.

Have average strength and endurance and basic balance and agility to travel through such terrain with a backpack.

Have the ability to have a third point of contact for balance purposes, such as with hand(s) or to hold an ice axe/walking stick, for travel through deep rivers, on snow slopes or ascending or descending slopes.

Although groups will often be able to take appropriate breaks or camp early if weather becomes hazardous, occasionally this is not possible. Examples include: descending/ascending a long boulder choked gully; descending a peak with a threatening thunderstorm; descending a mountain pass in similar conditions.

Resupplies of food occur every periodically (depending on course type, route, and pre-arranged logistics). Thus students need to be able to carry gear, food and personal items or personal medications, (such as insulin) needed for that ration period.

It is recommended that additional sections for each activity offered by a program be added.