HANDBOOK FOR OUTDOOR TRAVEL AND EDUCATION

Sterling College
Working Hands. Working Minds.

1/15/13
# Table of Contents

A Note on Nomenclature ........................................................................................................... 3  
The Scope of this Handbook ...................................................................................................... 3  
History of Bounder and OEL Programs .................................................................................... 4  
Description of Bounder and OE Programs ............................................................................... 4  
The Role of Outdoor Travel and Adventure Activities Across the Curriculum ....................... 5  
General and Ethical Guidelines .................................................................................................. 5  
Risk Management ...................................................................................................................... 6  
General Emergency Procedures ................................................................................................. 8  
Emergency Evacuation Procedures ............................................................................................ 9  
General Trip Guidelines ............................................................................................................. 9  
Student Supervision and Leading of Activities ......................................................................... 10  
Considerations for Extended Field Programs .......................................................................... 11  
Considerations for Solo Instructing .......................................................................................... 11  
Lost Persons: Prevention and Response .................................................................................... 11  
Equipment ................................................................................................................................ 13  
Activities: Land Based .............................................................................................................. 13  
Activities: Water Based ............................................................................................................ 22  
Snorkeling .................................................................................................................................. 24  
Activities: Incidental .................................................................................................................. 25  
Appendix A ................................................................................................................................. 28  
Appendix B .................................................................................................................................. 29  
Appendix C .................................................................................................................................. 30
Sterling College
Handbook for Outdoor Travel and Education

A Note on Nomenclature
The term “Instructor” will be used throughout this handbook to describe a faculty member, student, or staff person who is responsible for teaching, leading, or supervising an outdoor travel or outdoor education activity the conduct of which is covered by this Handbook.

The Scope of this Handbook
This handbook provides procedures for conducting outdoor travel and outdoor education activities that are part of the Bounder and Outdoor Education (OE) Programs as well as part of other components of the curriculum. Any activity the conduct of which is covered by this Handbook must be conducted according to the policies and procedures provided in this Handbook.
History of Bounder and OEL Programs
Sterling School was founded in 1958 as a boys’ college preparatory school. The educational philosophy of the school was rooted in the precepts developed by Kurt Hahn, founder of Outward Bound. Hahn believed that students could discover their untapped potential through a combination of academics, physical challenge, craftsmanship, and service to others. Outdoor challenge, most exemplified within the “Bounder” Program, has been integral to Sterling since the School’s inception. The name “Bounder” is derived from “Outward Bound”. In the formal documents that represent Sterling College, such as catalogs, syllabi, etc, Bounder courses are referred to as “Experiential Education I and II”, respectively; however, they will be referred to in this document by their colloquial names, Bounder I and II.
In late November, 1964, the first Winter Expedition bivouacked at the base of West Mountain near the Canadian border. Winter Expedition remains a signature element of the Sterling experience, as the culminating event of the first semester. When the alternative preparatory school market waned in the early 1970’s, Sterling began offering the Academic Short Course in Outdoor Leadership, a co-educational 21-day program for 13 to 16 year olds. An extension of this idea became the year-long Grassroots Project, which led Sterling into the world of higher education. Outdoor challenge, leadership development, and teambuilding continued to be integral parts of the curriculum throughout the subsequent evolution of the program to an accredited two-year Associates Degree program in 1987. The transition into a two-year program led to requests from students to extend the Bounder experience into the second year, because they valued the opportunities for personal and group learning provided by the program. This led to the development of the third semester of Bounder. When Sterling began developing its baccalaureate program, Outdoor Education was an obvious choice for one of the majors to be offered, building on the skills and experiences provided in Bounder, and reflecting also Sterling’s historical background in teaching leadership through the short courses. In spring of 2007 the decision was made to eliminate the paddling component of Bounder II and the entirety of Bounder III from the core curriculum. Both whitewater paddling and introductory rock climbing became elective courses.

Description of Bounder and OE Programs
The Bounder Program consists of two courses that take place over the course of two semesters, beginning with the first semester of enrollment. The formal titles for these courses are Experiential Education I and II. Informally, they are called Bounder I and II. In Bounder I, students are introduced to group problem solving, asking for and giving support, and trust building through active participation in classes followed by discussion of the consequences of their actions. Activities include two half-day flatwater canoeing sessions, navigating off trail with map and compass (this includes a half-day orienteering course and an off trail night hike over a local mountain range), group initiatives using portable low problem solving activities, fire-building, shelter-building, basic first aid, and overall preparation for and participation in a four-day winter camping “Expedition”. Bounder II emphasizes the cultivation of qualities essential to effective group membership and leadership through outdoor activities that include snowshoeing (a half-day session and an evening trek), team orienteering (one half day session), and cross-country skiing (two half-day sessions). Students explore the possibilities provided by human-powered endeavors through both the outdoor activities and through making their own paddle using hand tools.
Throughout the Bounder Program, briefing, debriefing, and journaling emphasize the transference of learning from the Bounder activities to both academic and social aspects of life at Sterling as well as in other arenas within students’ lives. The skills and attitudes learned in Bounder are useful throughout a student’s career at Sterling, as other coursework outside the Bounder curriculum may require the use and care of tools, paddling on lakes to collect data, group management and communication on a field
studies program abroad, and communication and conflict resolution within a team of students working together on a Senior Applied Research Project. Social skills learned within the Bounder Program are applicable in on-campus residence life, in interpersonal relationships at Sterling and elsewhere, and in employee/employer relationships throughout life.

The Outdoor Education Program at Sterling College combines the study of educational and leadership theory and practice with technical outdoor travel and adventure skills. Students explore issues ranging from ethical controversies and risk management to program design and gender dynamics. The core curriculum at Sterling strongly supports this major, providing every student with a solid background in ecology, environmental science, and recreational resource management. Coursework for the major includes the technical skills of rock-climbing, flatwater and whitewater canoeing, wilderness first aid, challenge course instruction, backpacking in a variety of terrains and seasons, nutrition and food planning and other logistical aspects of outdoor programming. Skills related to interpersonal interactions, group dynamics, leadership, and facilitation are taught both throughout the curriculum, and in specific courses. Educational theory is provided in a range of courses that combine theory with practice. Hands-on leadership and teaching experience takes place in the context of coursework, the Work College Program, and internships.

The Role of Outdoor Travel and Adventure Activities Across the Curriculum
Many courses throughout the Sterling College curriculum utilize outdoor travel skills as a means of pursuing academic goals. Students in a wide range of classes across the curriculum may canoe, hike, camp, ski, and snowshoe simply as a means of accessing remote locations. While the specific goals of these activities will likely differ from the goals of a given Bounder or Outdoor Education class, the general approaches identified in this Handbook apply across the curriculum.

General and Ethical Guidelines
1. The educational philosophy in these Programs is that students learn material best through direct experience. Instructors structure experiences which will provide participants with challenges, and facilitate learning from these experiences through an emphasis on natural consequences, and structured reflection.
2. Students are fully informed of the risks inherent in each activity prior to the experience.
3. While Instructors will at times attempt to impel students into growthful experiences, they also use the Challenge by Choice philosophy to ensure that students take ownership of their experience, and are not pushed beyond what is educationally positive for the individual. Experiences are structured in a manner that provides maximum opportunity for all students to participate to the best of their ability.
4. Instructors recognize the right of all students to be treated with dignity and respect, and emphasize the value of each individual through establishing agreements and guidelines regarding treating each other with respect, valuing oneself and others, and personal accountability.
5. Diversity is welcomed in these Programs and it is recognized that different educational approaches are required to meet the needs of different populations. The goal is to create a learning community which is free of prejudice and discrimination and which promotes emotional as well as physical safety while fostering respectful dialogue.
6. Instructors work to a high level of professionalism and adhere to all college policies.
7. Instructors enforce the Sterling College Drug and Alcohol Policy
8. Instructors adhere to policy regarding relationships with students.
9. The principles of Leave No Trace are used in the backcountry. Best practices for the area are followed based on evaluation and discussion of the environmental impact and educational benefits of various approaches.

10. Participant confidentiality is respected.

Risk Management

General Guidelines

1. The principal responsibility of each Instructor in any class, lab, work session, or trip is to ensure that risk management procedures are followed.

2. The general frame of mind that Sterling College seeks to promote is one of readiness based on concrete knowledge, organization of that knowledge, and the ability to apply the organized knowledge under the stress of an emergency situation. This involves recognition that emergencies are possible, and that by learning some specific skills and practicing problem identification and intervention skills, it is possible to help each other. Keeping calm and preventing further injury are part of this attitude of readiness.

3. Instructors will provide appropriate levels of briefing and training regarding the hazards, dangers, and risks in all activities. Use of competency exams is encouraged where appropriate. When appropriate, participants are informed of evacuation routes, contingency plans, and emergency procedures.

4. In general, and especially in remote situations, Instructors must be skilled in conducting activities at a higher level of technical difficulty than the activity they are leading with students. For example, an Instructor in charge of students paddling Class II whitewater should be skilled in paddling and rescuing in Class III whitewater. Similarly, an Instructor supervising students on a backpacking trip should be familiar with and skilled in navigating more difficult terrain than the terrain in which their backpacking trip will be conducted.

5. Instructors will be experienced and skilled in the safe use and inspection of equipment they or their students use.

6. Prior to backcountry experiences, students will be instructed in what to do in the event of being lost. An official search party will begin 12 hours after expected arrival. However, Instructors will initiate and coordinate a search earlier, as circumstances require.

7. Students will be instructed in basic first aid procedures and techniques prior to extended backcountry experiences. These will include bleeding, respiratory failure, shock, appropriate heat and cold related problems, and contents and use of first aid kits. First aid instruction will be prefaced with a session explaining the importance of safety, and the place of prevention in forestalling emergencies.

8. On backcountry trips there will be at least one leader or participant who has wilderness first aid training.

9. Instructors will review student medical forms prior to backcountry activity sessions and are prepared to address special medical situations before or during the activity.

10. Instructors of overnight trips will provide instruction on proper hygiene in backcountry situations.

11. The Sterling College Physician Advisor does not authorize the use of any specific wilderness medical protocols that are considered outside the scope of practice for a non-medical professional, including clearing the spine, reduction of dislocations, administration of prescription medications, cessation of CPR, and the removal of impaled objects. However in the event of medical situations arising in a remote backcountry setting, Sterling College Instructors must provide treatment commensurate with their training and abilities and use their best judgment.
12. Instructors will report incidents as specified under “General Emergency Procedures”. The reporting process includes debriefing the incident in a timely fashion. This practice ensures ongoing internal review of our risk management policies.

13. First Aid Kits are kept in the following locations: each vehicle, each residence, the Logging Shop, the Wood Shop, the Maintenance Garage, the Farm Barn, the Main Office, the Kitchen, and the Wellness Center. In addition, Instructors take a first aid kit with them to all outdoor classes. Kits for classes are stored in the Wellness Center. The Wellness Center maintains the First Aid Kits once a year. Instructors must check contents before relying on the kit in the wilderness.

14. All Instructors must ensure that students are suitably briefed, trained, clothed, and equipped. The briefings and supervision should include an emphasis on the need for each student to understand and accept a reasonable level of responsibility for their own safety as well as those around them. When conducting extended experiences, Instructors will also ensure that students are provided with adequate food, water, and shelter.

15. Instructors conduct a risk assessment of any new sites prior to use with students, and must be familiar with any site prior to use with students.
General Emergency Procedures
In all emergencies, Instructors must respond according to their level of training, and seek additional resources as needed. Note: in the event that a student is the most qualified first responder at the scene, the instructor will delegate medical care to that student.

1. For an in-field or on-campus medical injury (minor), the Instructor will:
   a. Assume leadership position and survey scene for safety.
   b. Assess injury and response needed.
   c. Treat and transport to Wellness Center or Residence Hall OR if incident occurs in a remote setting, treat and follow Emergency Evacuation Procedures.
   d. Retrieve student medical file.
   e. Arrange transportation to and from medical facility if necessary.
   f. Fill out SOAP note and incident report form and file with the Chair of the Risk Management Committee. This should be completed within 24 hours of the incident. The person filling out the Incident Report form should be the person in the supervisory role at the site of the incident. The person completing the Incident Report will also debrief the incident with their supervisor and/or a member of the Risk Management Committee.

2. For an in-field or on-campus medical injury (major), the Instructor will:
   a. Assume leadership position and survey scene for safety.
   b. Assess injury and response needed.
   c. Treat and monitor injury in accordance with training.
   d. If emergency takes place in remote setting, follow Emergency Evacuation Procedures.
   e. Send runner(s) to phone to call:
      - 911 with information on nature of injury and location.
      - Main Sterling Office to report injury and request additional assistance, for example, large first aid kit, oxygen, blankets, litter, etc.
   f. The person receiving this call will document the call, noting who called, what happened, the exact location of the injured party, and what is needed. S/he will:
      - send people to retrieve needed items including medical form;
      - call the President (or Vice President, Dean of Academics, or Dean of Students) to notify of the accident.
      - send personnel to ensure the ambulance locates the scene.
      - remain by the phone.
   g. Fill out SOAP note and incident report form and file with the Chair of the Risk Management Committee. This should be completed within 24 hours of the incident. The person filling out the Incident Report form should be the person in the supervisory role at the site of the incident. The person completing the Incident Report will also debrief the incident with their supervisor and/or a member of the Risk Management Committee.
Emergency Evacuation Procedures
In the event of an emergency requiring evacuation:

1. The Instructor will assess the patient, perform necessary first aid in accordance with training, and control the scene.
2. At this point in any evacuation, many things may happen simultaneously. The following is an outline, not necessarily a sequential list.
   a. Document: Record the assessment, mechanisms of injury, first aid given, and changes in the patient’s condition.
   b. Organize: Assume leadership and delegate responsibilities. Keep everyone occupied and cared for.
   c. Decide upon an evacuation strategy. Consider remoteness of location, severity of injury and condition of patient, condition of group, amount of daylight available, weather conditions, availability of rescue personnel, and the applicability of radios for expediting an evacuation. There are two radios in Admissions and two in Maintenance.
   d. Message: Determine if a message to the appropriate rescue and/or Advanced Life Support team is necessary. In the case of serious accidents, calling 9-1-1 directly is appropriate. In the case of less serious accidents, it is appropriate to call Sterling College and request assistance with an evacuation. If the Instructor does not have access to communication technology, runners will be sent to the nearest telephone.
3. Runners: One instructor and one student will be sent if there is an Instructor to stay on location. Otherwise, two or more students may be sent. Runners should be prepared to spend the night out, and will carry: food, stove, shelter, extra clothing, and sleeping bags.
4. Message content will include:
   a. Copy of documentation of patient assessment with as much information as possible.
   b. Documentation of the evacuation plan including:
      Timetable
      Backup plans
      Travel routes
   c. Marked maps showing:
      Location of accident
      Present location of group and of patient
      Route out and access point(s)
      Destination
   d. Any special requests (oxygen, doctor, litter, blankets, more people to help carry litter, etc.)
5. Any evacuation must be reported to Sterling College. Information reported should include name, location, phone number from which the call is being made, evacuation plans and needs, and information about patient condition. Runner(s) should remain by telephone for some time in case a return call is made and should wait for help to arrive before returning to aid in the evacuation.

General Trip Guidelines
1. Trips should be planned in advance as much as possible. Trip needs should be coordinated with other faculty, landowners, federal and state agencies, the Sterling van fleet, the Sterling Kitchen, and others who will be affected. Instructors will schedule pre-trip meetings for briefing students about the trip. Written gear lists are recommended for trips of more than one day.
2. Trips using State Land or National Forests should be planned well in advance. The Registrar handles anticipated use of State Lands. Anne Morse handles permits for the White Mountain National Forest.
3. Van use must be scheduled well in advance. The vehicle calendar in the faculty workroom is used for scheduling vans. Departure and return dates and times should be written on the calendar. If there are conflicts, they should be worked out with other faculty involved. Upon departure and return, vehicles must be signed out and then in, and the key should be returned to the vehicle board in the faculty workroom or, if the workroom is closed, into the envelope on the door of the office of the Registrar.

4. Trip mileage is documented on the run sheet in the vehicle. Vehicles should be gassed up if the trip brings the tank to below one-half full. Sterling College has an account with Paul’s garage and gas station in Craftsbury. If vehicles are filled with gas elsewhere, reimbursement can be obtained through use of a check request form (found in the faculty work room). This kind of expenditure should be anticipated and requested in a course budget prior to the semester.

5. Canoe use must be scheduled with Adrian Owens (or current canoe manager).

6. Instructors taking students overnight or out of state must file a trip plan. These forms are kept in the faculty workroom. Active trip plans are placed in the folder on the bulletin board labeled: “Active Trip Plans”. After a trip is completed the form should be removed.

7. If food is required from the Sterling Kitchen a food request sheet should be submitted to the kitchen at least three days in advance of the trip. These forms are located in the faculty workroom.

8. Copies of the medical forms for participating students must be requested from the Registrar’s Office a week in advance. These must be reviewed prior to departure, and any medical situations that may be problematic should be discussed with the student in a confidential setting. Medical forms should be brought in the field to aid in providing care in case of injury, and so insurance information is available in the event of a trip to the hospital.

9. The Instructor should sign out a First Aid Kit from the Wellness Center; hours of the Wellness Center are posted each semester. The contents of the kit should be checked and restocked if necessary.

10. On backcountry trips there will be at least one leader or participant who has wilderness first aid training.

11. The Instructor must ensure that all members of the trip are suitably briefed, trained, dressed, equipped, and in good health.

12. The Instructor must ascertain that there is an administrator on call at Sterling and on-campus personnel who are prepared to help with field emergencies, including an evacuation. If your trip takes place during a time when the offices are closed arrangements should be made for an Instructor in town to be on call.

13. Instructors who are solo instructing must follow all procedures for solo instructing. Decisions about safe student/Instructor ratios should be based on the difficulty of the activity, skill level and maturity of group, weather conditions, and the Instructor’s ability to effect a rescue.

14. No hatchets should be used on any field activity. Axes are restricted to those students who have received specific training. Axe use is usually restricted to contact splitting and pounding stakes.

15. All vehicle policies and procedures must be followed when using Sterling College vans.

**Student Supervision and Leading of Activities**

Students may be allowed to supervise or lead activities after being approved for that specific role by a Faculty member who is familiar with the student’s capabilities, experience, and reliability. Students in such a position must read this Handbook and follow all policies and procedures. Students in leadership and supervisory roles are also responsible for returning gear in good condition and in a timely fashion, and must replace
any gear that is lost or damaged. Such roles include Bounder TA, which could involve being a climbing wall supervisor, or assisting with instruction of the Bounder Program; TA for an OE course, which would mean working closely with the Instructor on all aspects of curriculum planning and delivery, including assisting on backcountry trips or other outdoor activities; Work College jobs such as Buffalo Mountain School Adventure Instructor, which include designing and facilitating indoor and outdoor adventure activities with the Buffalo Mountain School students; and OE class assignments such as designing and facilitating the After School Adventure Program at Craftsbury Academy. Supervision by Sterling Instructors of Sterling students in all such roles will vary depending on the nature and location of the activity, experience and skill level of the student in charge of the activity, the population, and environmental conditions. Levels of supervision can range from indirect supervision, ie meeting with the student periodically for briefing, planning, troubleshooting, and debriefing; to direct supervision, ie the Sterling Instructor being present throughout the activity session and intervening and assisting as necessary.

Considerations for Extended Field Programs

1. General: Instructors will follow Guidelines for Field Study Programs as appropriate. Behavior of Instructors and students should be culturally appropriate and safe at all times.
2. Drug and alcohol policy: In general, the Sterling College Drug and Alcohol Policy applies in the context of extended field programs. Instructors reserve the right to send violators of this policy home at the students’ expense. Instructors may use their discretion in following in-country laws in instances where the drinking age is lower than in the U.S. and where use of alcohol is appropriate to the context and activity. There may be sections of a field course in which all alcohol use may be prohibited for students and Instructors.
3. Medical practices and protocols: Instructors will carry and be trained and authorized to use a range of prescription drugs while traveling with students on extended field programs, especially in remote locations. What drugs are carried will depend upon the location, duration, and nature of the program. Instructors carrying such drugs will be explicitly trained in their use, and will document any use of prescription drugs in the field.

Considerations for Solo Instructing

Solo instructing may occur in situations where the group skill level is high in relation to the activity difficulty and the instructor is familiar with the terrain and is skilled in all aspects of conducting the activity, group management, and rescue. When solo instructing, the Instructor will inform the group of the extra responsibilities the group must take on due to the situation and will brief students on emergency procedures, location of first aid kit, van keys, and the closest medical facility. The Instructor will also delegate, or ask the group to elect, a “second in command” in the event the Instructor is injured. The Instructor will make group members familiar with which group members have first aid training.

Lost Persons: Prevention and Response

Prevention: What to Teach Students

1. If you are going out exploring on your own or with a buddy, let someone know where you are going and when you expect to be back.
2. How and when to contact Sterling and/or local contacts when in “trouble”.
4. Sit Down. Force yourself to breathe deeply, slowly. Conserve and protect the physical and mental resources you have.
5. Do not wander; this only increases the size of the area people will have to search for you. **STAY PUT!**

6. Think. If you know you can follow your backtrail or retrace your route, you are not lost. Return to a previous checkpoint and wait for help. But if in doubt, **STAY PUT.**

7. Signal. If you think others are in hearing range, blow a whistle or use controlled shouting, keeping in mind that shouting can become tiring and can increase anxiety. Three of anything is the international distress signal.

8. Make yourself visible. If you do not know where you are, find a place nearby, or a landmark, where you can be noticed from the trail or road (a meadow, high point, shore of lake, path, etc.) and then **STAY PUT.** If in doubt, stay where you are. Wear bright clothing and/or put bright clothing in a tree.

9. Find or Make Shelter. Take stock of your resources, equipment, water, and any food. These can be important. Do not leave any equipment.

10. It is essential that you conserve body heat and energy. Be watchful of hypothermia. Put on all of your layers of clothing if you begin to get cold. You can increase your insulation by stuffing leaves (dry) into the open spaces in your clothing.

11. Make Fire. Use a controlled smoky fire by day, controlled bright fire by night.

12. Be Patient. Force yourself not to worry about missing work, causing problems for others, or any thoughts that would push you into foolish, hasty actions. Look and listen for the signal of rescuers and be prepared to make your own signals.

**Response: Lost Person Protocol**

1. If more than 30 minutes has gone by since the person was last seen, an **Initial Search** should begin. This consists of shouting the person’s name to attempt to get a response, assuming the person is very nearby. The group should retrace route to last known point where individual was present.

2. If shouting does not bring a response, group members in pairs should perform an organized **Quick Search** by quickly sweeping the area, nearby trails, lookout points/cliffs, nearby steams/lakes, and any other obvious places the person(s) might be for approximately 20-30 minutes. Take a few minutes to make a plan as a group on where to go on the Quick Search before heading out. Particularly look in any areas that seem probable based on your earlier information gathering (i.e. the person was heading south, wanted to see the sun set, etc.). Look for signs of the person such as clothing or belongings as well as for the person. Shout for the person repeatedly. Listen carefully for a response.

3. If the Quick Search does not bring results within one hour a more systematic search should be initiated, a **Secondary Search.** Set up a “command post” having one person coordinate from this site. Search parties should be sent out in groups of at least 3 and a time limit should be set to meet back at the “post”. Take time to plan out where searchers will go on the Secondary Search to cover all likely locations. In case of darkness, all searchers should be equipped with flashlights and should always be within sight of the next searcher. Take the time to write down how the person was dressed/equipped; mind frame and training/skill level of the lost person; weather conditions and time of day last seen; any medical conditions; last time the person ate. Take into consideration the condition of the remainder of the group, the terrain, distance from road and/or telephone, and daylight hours remaining. All these factors together may influence instructor judgement regarding the timing of search efforts.

4. If Secondary Search does not bring result within one hour, a group must be sent for help in order to bring in rescue personnel for a **more extensive search.** Do not delay or “wait another hour.” One team goes out for help; the other members continue the Secondary Search.
5. The above protocols describe how we will respond to lost individual(s). In instances of intentional unaccompanied group travel, in which the group has received some training in what to do if they get lost, and in which the group is equipped for camping out, instructor discretion may modify the above protocols.

**Equipment**

**Bounder Equipment**
Sterling College owns a collection of equipment that includes camping, cross-country skiing, snowshoeing, and canoeing gear, as well as some initiative equipment. This collection is used by the Bounder and OE programs, and other courses, and is also available for student rental. This equipment is inspected at the beginning of each semester by a faculty member in charge of Bounder, and records will be kept by that instructor in the Equipment Log. Repairs are made as needed.

**OE equipment**
Sterling College also owns gear that is, at the present time, only used for OE courses, or courses with an OE component, such as ice climbing and mountaineering equipment. This equipment is maintained, and its use is documented in the Equipment Log, by the faculty member who is most often in charge of its use.

**Climbing Wall and Challenge Course Equipment**
Sterling College owns climbing gear that is designated either for the Challenge Course or for the Climbing Wall. This equipment is inspected each semester by the faculty member(s) in charge of its use (Climbing Wall- Ned Houston, Challenge Course- Anne Morse/John Zaber). Use is documented in the Equipment Log. External inspections of these facilities are conducted by an outside resource on at least a bi-annual basis.

**Canoe Rental**
1. Students may rent a canoe for flat-water use after they have passed the competency test in Bounder I.
2. Students renting canoes fill out a trip plan form with the rental waiver. The Bounder equipment manager checks that the plan is appropriate for the weather conditions and the abilities of the students.
3. Rentals are only available May through October. The instructor may decide that the weather conditions are too risky for the ability of the paddlers, and not allow the rental.

**Ski and Snowshoe Rental**
After completion of the first session of cross-country skiing in Bounder II, students may rent Sterling College Ski Equipment. The student signs a waiver, receives brief instructions on operation of the bindings and pole straps, and instructions to take off the skis when crossing roads. Students may also rent Sterling College snowshoes after completing the snowshoeing class in Bounder II. The rental procedure is the same as for renting skis.

**Activities: Land Based**

**Climbing Wall**
1. Description and Purpose: The climbing wall is used for climbing instruction in *Bounder III* and *Rock Climbing Techniques for Outdoor Leaders*, and for instruction of site management, belay supervision, activity design, and other aspects of facilitation and instruction, in OE classes. As part of these classes, Sterling College students may conduct climbing wall sessions for non-Sterling participants (for example, middle or high school students), while under the supervision of a Sterling College faculty member. Additionally, approved Sterling College students supervise recreational climbing at the Climbing Wall by members of the Sterling College community.
2. Requirements for Conducting the Activity: In general, procedures for using the climbing wall are the same as outlined in rock climbing. Student leaders who wish to supervise the Climbing Wall may request training to become approved as leaders. Once trained and approved, these student leaders may open the wall for student use without the presence of a faculty instructor. Student leaders keep a log of activities noting numbers of participants and any incidents which they review with their Faculty supervisor. If climbing on the Climbing Wall is conducted at night, the lights are used. Use of the Climbing Wall by non-Sterling groups without Sterling Faculty supervision is not an option.

3. Curriculum: See section on top roping and rappeling.

Cross Country Skiing
1. Description and Purpose: Cross Country Skiing is introduced to Sterling College students in Bounder II. The purposes include: giving students outdoor travel skills, letting them observe nature and people’s influence on it, providing opportunities for student leadership, decision making, and navigation. Other classes may use cross country skiing as a winter travel technique in order to teach more advanced skills, further develop leadership skills, and access pristine areas.

2. Requirements for Conducting the Activity:
   a. Instruction and supervision are provided by an Instructor who understands and can demonstrate all relevant techniques, has experience teaching these techniques, and has experience and skill in preventing, recognizing, and treating cold-related injuries. Instructors need to be knowledgeable about safe use of ski equipment, and able to perform basic repairs.
   b. Students must be dressed in suitable layers for outdoor activity, with adequate protection from the cold, as well as drinking water and food if a longer ski is anticipated.
   c. A first aid kit will be carried.
   d. For backcountry skiing activities, a repair kit will be carried, including a spare ski tip, duct tape, spare binding parts, screwdrivers, and pliers.
   e. The staff to participant ratio will not exceed 1:12 on groomed trails and 1:8 in backcountry situations.

3. Curriculum for Cross Country Skiing:
   a. The Instructor will brief group on pacing, route, navigational concerns, and any hazards associated with the terrain. The Instructor will help the group decide on a system for staying together.
   b. Instruction of skills will be progressive, allowing students to achieve competency in basic skills and then build on them with more advanced skills.
   c. Students will be taught the techniques needed to successfully negotiate the terrain on their route. These will differ depending upon whether the activity is taking place on groomed trails or in the backcountry.

Hiking, Backpacking and Camping
1. Description and Purpose: Students are introduced to this activity in Bounder I, in which students learn safe practices for traveling and camping in remote areas. For the description and purpose of Bounder I, see Winter Expedition. Hiking, backpacking and camping may take place in other classes as a means of refining backcountry travel skills, exploring leadership skills, becoming more acquainted with the region, and accessing remote areas for a variety of other educational purposes.

2. Requirements for Conducting the Activity:
   a. Instruction and supervision are provided by an Instructor who understands and can demonstrate all of the necessary skills for hiking, backpacking and/or camping, and has experience teaching these skills. Instructors need to be knowledgeable about safe use of all equipment used for the activity, the
inspection and storage of this equipment, and any basic repair/maintenance necessary.

b. Instructor is familiar with the route, either through firsthand experience or maps/guides, and ensures that adequate equipment, food and water, clothing, and training are provided. Involving students in the planning is encouraged, but the Instructor is responsible for checking all preparation. Appropriate guidelines should be set beforehand regarding group responsibilities, environmental protection (LNT), etc.

i. If adequate information about the route is not available, the route must be changed, or a scouting trip must be arranged prior to conducting the trip.
ii. For equipment consider: water purification, cooking, sleeping shelters, navigation, waste disposal, first aid, lights, communication, wild animal concerns (including bugs).
iii. While hiking students and instructors will need at least 2 litres of water during the day, and more in camp and during hot weather.
iv. When considering clothing all possible weather conditions must be considered, from cold precipitation to hot sun. Full raingear, sturdy footwear, and non-cotton insulating layers are required at minimum, even with a warm and clear weather forecast. For winter hikes or high mountain travel year-round much more attention to clothing is required. For Expedition, waterproof boots with thick removable liners are required.
v. Participants must be trained in the use of equipment such as stoves, specialized tools such as crampons, or specialized travel skills like canoeing.
c. Group condition and weather will be monitored while traveling, and turning back or otherwise modifying plans will be considered when appropriate. Sterling students have widely varying levels of fitness and experience. Groups will be kept together in easy communication range unless splitting the group serves a specific educational goal. In instances in which splitting the group occurs, route parameters, communication, rendezvous points, and leadership roles will be established. The group will travel at the pace of the slowest hiker and stop before anyone is totally exhausted. Students will only be allowed to use technical skills that the Instructor is competent to supervise.
d. In camp, the Instructor(s) will continue monitoring group behavior and weather conditions. Students must tell the Instructor or at least one other student if they are leaving camp (to go for a walk, look for firewood, etc). Students need to know where the Instructor is at all times. An evening check-in is recommended, as an opportunity to deal with issues of the day and make sure all participants are in good condition. Instructors must be mentally prepared for 24-hour responsibility for the group.
e. If hiking takes place at night, additional safety precautions are taken, including the use of headlamps, slower pace, and traveling closer together. Night hiking should only take place in terrain that the Instructor knows is appropriate for the ability of the group and the reduced visibility.
f. The staff to participant ratio will not exceed 1:8 unless the group is camping close to an Instructor’s house (as often happens on Bounder I overnight), in which case the staff to participant ratio will not exceed 1:12.

3. Curriculum for Hiking, Backpacking, and Camping.
   a. Instruction is provided on how to load, adjust, put on, take off, and carry a pack.
   b. Students are briefed on proper clothing and personal equipment.
   c. Students are briefed on the route, evacuation points, and relevant navigational skills.
   d. Progressive instruction is provided in travel skills (ie navigation, use of snowshoes or skis, etc.) prior to traveling with a loaded pack.
e. Instructors teach and supervise the use of camp skills (stove use, fire building and safety, shelter construction, etc.)

Ice climbing
1. Description and Purpose: this takes place in Introduction to Ice Climbing and the purpose is to teach basic ice climbing skills.
2. Requirements for Conducting the Activity
   a. Instruction and supervision are provided by an instructor who understands and can demonstrate all of the techniques outlined in course syllabus, has practice teaching these techniques, and has spent time working with the senior Sterling climbing instructor. Instructors need to be knowledgeable about safe use of all equipment used for the course, the inspection and storage of this equipment, and any basic repair/maintenance necessary. Instructor must be trained in first aid and able to deal with emergencies in an outdoor or remote setting.
   b. A portable litter or sled will be in the vehicle used to travel to ice climbing sites. The group will carry a cervical collar, sleeping bag or space blanket, and a first aid kit to ice climbing sites.
   c. Students must be dressed properly for conditions and activities and must carry adequate water and food. This means adequate protection from the elements (cold, water, snow, sun) with particular emphasis on layering and adequate footwear and apparel for protection from wind, cold, snow, and water.
   d. Instructors must be familiar with the climbing sites and choose sites appropriate to class level, class size, and weather. Sites should be very familiar to the instructor(s) or should be visited prior to use.
   e. Instructors should practice and emphasize LNT techniques for climbing activities.
   f. At climbing sites, everyone wears helmets and must be made aware of scene safety, staying away from edges, out of line of fall for ice and debris, etc.
   g. Instructor must check safety of all anchors before use by students.
   h. All rappels by students must be belayed.
   i. Staff to participant ratio will not exceed 1:6.
3. Curriculum for Ice Climbing.
   a. Students must become familiar with fitting harnesses, helmets, crampons, and boots. Before any actual climbing, instructors must assure that helmets, harnesses, and crampons are properly secured.
   b. Knots will be taught in a progressive fashion.
   c. Safe anchor construction is demonstrated using natural features and ice screws.
   d. Belaying for ice climbing will be consistent with belaying for top roped rock climbing.
   e. A variety of techniques for moving on ice will be taught.
   f. As in rock climbing, students are belayed when rappelling.

Initiatives and Challenge Course Activities
For policies and procedures on the conducting of initiatives and Challenge Course activities, see the Sterling College Challenge Course Instructor Manual.

Mountaineering
1. Description and Purpose: mountaineering occurs primarily in association with the Mountain Cultures Semester program as preparation for safe travel in remote, high mountain areas.
2. Requirements for Conducting the Activity
a. Instruction and supervision are provided by an Instructor who understands and can demonstrate all of the techniques that will be needed, has practice teaching these techniques, and has spent time working with the senior Sterling climbing instructor. Instructors need to be knowledgeable about safe use of all equipment to be used, the inspection and storage of this equipment, and any basic repair/maintenance necessary. Instructor must be trained in first aid and able to deal with emergencies in an outdoor or remote setting.
b. Students must have proper clothing and cold weather equipment.
c. Dangerous avalanche conditions must be avoided. If travel in avalanche terrain is anticipated, the group will be trained in avalanche safety, and carry a beacon, avalanche probes, and shovels.
d. Going to altitude must be preceded by adequate acclimatization.
e. Staff to participant ratio will not exceed 1:6 in class 3 or 4 terrain and 1:4 in class 5 terrain.

3. Curriculum for Winter Mountaineering.
   a. Instruction will be provided regarding appropriate clothing and equipment for the mountain environment.
   b. Instruction will be provided regarding terrain evaluation and mapreading.
   c. Instruction will be provided regarding avalanche conditions, snow condition assessment, high altitude safety and acclimatization, cold weather and winter camping techniques (as needed), travel on snow and ice, crampon use and basic ice climbing, and use of the mountaineering ice axe.
   d. Students will receive any necessary training in planning and cooking meals in the mountain environment.

Orienteering

1. Description and Purpose: Orienteering is introduced to students during A Sense of Place. The purpose of the map and compass curriculum is to orient students to map and compass navigation which will be useful to most of them in work experiences at Sterling and in future employment, expose students to a fun, non-mechanized, outdoor sport, and provide a venue for teamwork and decision-making. Students may participate in further orienteering activities throughout the curriculum for the same purposes described above and to further hone skills.

2. Requirements for Conducting the Activity:
   a. Instructors will brief students on the scale of the course in regards to distance and time, what the markers look like, what to do if lost, and where to check in when they return.
   b. Instructors will inform students what clothing and equipment they will need for self care during the course, based on scale of the course, terrain, and weather.
   c. Decisions regarding whether to conduct the activity as a solo, paired, or group activity, or whether students should be accompanied by Instructor, should be made based on educational goals and student ability level.
   d. Instructor will ensure that all participants return, and be ready to initiate a search.
   e. When conducting night orienteering students are required to wear protective goggles. Students are also briefed on walking cautiously, testing their footing, providing adequate spacing between hikers to avoid whipping branches, using headlamps when terrain is uncertain, and having a system for staying together.
   f. Staff to participant ratios will not exceed 1:12.

3. Curriculum for Orienteering:
   a. Instructors will assess student ability level and provide additional instruction or coaching as needed to meet the educational goals of the activity.
b. Skills instruction should always be sequential, ideally allowing students to apply and internalize one set of skills before building upon those skills with more advanced ones.

Service Learning
1. Description and Purpose: Service learning is built into many aspects of the curriculum. The inclusion of service learning in courses is intended to integrate students into the surrounding community, emphasize interdependence as a component of a systems approach to the world, teach good work habits, cultivate course-specific skills, and promote environmental stewardship.

2. Requirements for Conducting the Activity:
   a. The needs of the service recipient should be of primary concern.
   b. Students should be briefed as to the purpose of the service work and when possible should have a role in choosing the work to be done. The context of the work should be emphasized, and the experience should be debriefed with an eye toward promoting the learning goals of the course.
   c. All risk management policies apply; this is especially important to keep in mind when conducting international programs in cultures and setting where norms regarding safety are different from ours.
   d. First aid kits should be carried when conducting service projects in the field.

3. Curriculum for conducting service learning:
   a. Instructors will do their best to ensure that students receive a thorough briefing as to the nature of the work to be done, the purpose of the work, and as much background information as possible about the service learning partner.
   b. Instructors will assess the nature of the work and the skills within their group and provide appropriate skill instruction and supervision.
   c. Instructors will ensure that processing takes place following the activity.

Snowshoeing
1. Description and Purpose: Students are introduced to snowshoeing in Bounder II. The purpose of snowshoeing in this course is to expose students to a unique mode of travel in the winter backcountry, provide basic skills for successful snowshoeing, increase awareness of winter landscapes and natural history, and practice and reflect on leadership skills and styles. Additional exposure to snowshoeing may occur in other classes in order to further cultivate skills in winter backcountry travel and safe snowshoe use in mountainous terrain.

2. Requirements for Conducting the Activity:
   a. Instruction and supervision are provided by an Instructor who understands and can demonstrate all of the techniques applicable for the activity, and has experience teaching these techniques. Instructors need to be knowledgeable about safe use of snowshoes and be able to mend and improvise bindings. Instructor is also competent in recognizing, preventing, and treating hypothermia and frostbite, and in assessing the adequacy of student clothing and footwear for the conditions.
   b. A first aid kit and extra cord should be carried.
   c. Students must wear warm winter boots and be dressed in layers suitable for winter travel.
   d. Adequate amounts of water and food should be carried.
   e. Snowshoe games should be preceded by proper warm-up activities and briefing on potential hazards.
   f. Staff to participant ratios will not exceed 1:12.

3. Curriculum for Snowshoeing:
a. Students should be provided with background information on the origins of snowshoes, and the applicability of different designs for different types of terrain.
b. Instructor should ensure that students are wearing appropriate types of snowshoes for the terrain to be traveled. For example, many modern snowshoes are too small for backcountry travel in deep snow with a pack. If steep terrain is anticipated, snowshoes with built in “crampons” should be considered.
c. Instructors should provide sufficient instruction on technique to allow students to negotiate the terrain successfully.

Solos
1. Description and Purpose. Solos may be used in Group Process for Outdoor Leaders or other courses for purposes of promoting reflection, introspection, and self-reliance, and allowing students the opportunity to fully experience the natural world.
2. Requirements for conducting the activity.
   a. Instruction and supervision are provided by an Instructor who understands and can effectively facilitate a solo experience.
   b. The solo area and solo sites must be chosen with consideration given to ensuring the terrain is safe, there is adequate water, and conducting a solo there is compatible with Leave No Trace practices.
   c. Solos are to be relatively stationary; students are required to remain within an area established between the instructor and student.
   d. Instructors must be well enough acquainted with the students’ capabilities to accurately assess student readiness for a solo experience.
   e. No swimming is allowed during solo unless an instructor is present.
   f. Students must be equipped with adequate food, clothing and water, and raingear.
   g. Students must be spaced to allow a call or whistle for help to be heard by another person.
   h. Any students who may need special attention for heath reasons during the solo should be placed close to the Instructor camp and a plan should be made to ensure the safety and well-being of the student during solo.
   i. Any fires used will be built according to LNT principles, including use of a fire pan.
3. Curriculum for Solo.
   a. Initial conversations about solo should start long enough ahead of time to allow students to give the solo some thought and develop some goals for how they want to experience solo. Instructors will provide some ideas and resources to support students having a successful solo experience.
   b. Students must be briefed as to emergency procedures, adequate food and water intake, staying warm, any local hazards, duration of solo, a system for daily checks with the instructor, location of instructor camp, boundaries of the solo site, shelter construction, and proper use of equipment during solo.
   c. Instructors must make sure that students have adequate skills to keep themselves safe and relatively comfortable on solo.

Student Unaccompanied travel
1. Description and Purpose. Student Unaccompanied Travel currently occurs in Group Process for Outdoor Leaders during a backpacking component of the course, and may also occur in other field courses on occasion. Student Unaccompanied Travel gives students an opportunity to take on full
responsibility for travel, leadership, decision-making, and camping, in order to strengthen skills, cultivate judgment, and build a culture of accountability.

2. Requirements for conducting the activity.
   a. No Unaccompanied Travel will take place unless the Instructor has assessed that the group has the skills (both technical and in terms of decision-making), judgment, and maturity to complete the activity safely. Modifications to the activity such as the Instructor traveling silently with the group or trailing the group within sight should be considered.
   b. Student Unaccompanied Travel will travel only in terrain that is one class lower than what was travelled with the instructor(s).
   c. A system will be established for daily check-ins, to include either face to face, radio or via notes left at agreed upon locations.
   d. Minimum group size for Unaccompanied Travel is four.

3. Curriculum for Student Unaccompanied Travel
   a. Students will be briefed on evacuation routes, contingency plans (ie in the event of failure to make a rendezvous), and emergency procedures.
   b. Students will have adequate time and preparation beforehand to discuss and decide upon both group and individual goals for Unaccompanied Travel.
   c. A student leader will be designated to take charge in the event of an emergency.
   d. A Chief First Aid Officer will be designated to manage first aid if there is an injury. This person will be responsible for carrying the Student first aid kit.
   e. An Instructor who has unexpectedly lost contact with a group on Unaccompanied Travel will contact Sterling College within 24 hours.
   f. Students will be involved in the planning of their Unaccompanied Travel.
   g. Before beginning Unaccompanied Travel, students will clearly understand the following:
      - their exact route;
      - location of checkpoints and alternative checkpoints;
      - where and how to contact Instructor if they need help;
      - location and management of potential hazards;
      - campsite locations and alternatives.

Top Roping and Rappelling

1. Description and Purpose: Students are introduced to climbing in Introduction to Rock Climbing. Goals in these classes include confronting personal challenges and cultivating mutual support within a group, developing specific technical skills needed for safe top-roped climbing and rappelling, and developing instructional skills for top roping settings. Top roped climbing activities may also occur elsewhere in the curriculum as a vehicle for exploring group process, adventure learning, curriculum design, or group management. In these classes, Sterling College students may conduct top roped climbing activities with non-Sterling participants (for example middle school or high school students).

2. Requirements for Conducting the Activity
   a. Instruction and supervision are provided by an Instructor who understands and can demonstrate all of the skills to be taught, has experience teaching these techniques, and has spent time working with the senior Sterling climbing instructor. Instructors need to be knowledgeable about safe use of all equipment used for the activity, the inspection and storage of this equipment, and any basic repair/maintenance necessary. Instructor must be trained in first aid and able to deal with emergencies in an outdoor or remote setting.
   b. Except at the Climbing Wall, a portable litter will be in the vehicle used to travel to the climbing site. A first aid kit will always be with the group.
c. Students must be dressed properly for conditions and activities and must carry adequate water and food. This means adequate protection from the elements (cold, water, snow, sun), loose fitting clothing (in general no shorts), safe footwear (no open-toed shoes), and long sleeves and pants for protection from brush, insects, and sun.

d. Instructors must be familiar with the climbing sites and choose sites appropriate to class level, class size, and weather. Sites should be very familiar to the instructor(s) or should be visited prior to use.

e. Instructors should practice and emphasize LNT techniques for climbing activities.

f. At climbing sites, all participants must wear helmets and must be made aware of scene safety, including the need to stay away from edges, stay out of line of fall for rocks and debris, etc.

g. Instructor must check safety of all anchors before use by students.

h. Belayers must be anchored.

i. All rappels by students will be belayed.

j. Staff to participant ratios will not exceed 1:8.

3. Curriculum for Top Roping and Rappeling:

a. Proper instruction must be provided regarding the fitting and use of harnesses and helmets, as well as shoes if climbing shoes are to be used.

b. The Instructor must provide a site tour and safety briefing prior to conducting the activity, including safe zones, how to respond to rockfall, safe walk-up/walk-down routes if applicable, and protocol for approaching edges.

c. Before any climbing occurs, Instructors must assure that helmets and harnesses are properly secured.

d. Knots will be taught in a progressive fashion, reinforcing the basic knots and introducing more advanced knots depending on the educational goals. Rock climbing skills courses will emphasize learning a range of knots; for a one-day climbing session, participants may simply be taught a figure-eight follow-through for tying in.

e. In rock climbing skills courses the construction of safe anchors is taught, with an emphasis on simplicity, self-equalizing and self-protecting. In short climbing experiences, anchor construction may not be taught at all.

f. A standard belaying technique is taught and used throughout the Sterling Climbing curriculum. This includes use of a belay device and the technique that maximizes the use of the brake position (Pull, Brake, Under, Slide). Once Sterling students are familiar with this basic protocol, Instructors may also teach different techniques, including hip belay, to achieve different educational goals.

g. Back-up belays are used as appropriate, and are always used when non-Sterling participants are belaying.

h. Belayers should be out of line of falling material and must be anchored.

i. Sterling College has its own climbing call system that is taught and used in all climbing activities: “Ready to Climb?” “On Belay” “Climbing” Climb”. Additional commands are similar to or the same as those used outside of Sterling. Instruction in the use of commands is provided at the beginning of any climbing activity.

Winter Expedition

1. Description and Purpose: The purpose of Expedition is to further promote the course objectives for Bounder I: increase students’ confidence and responsibility in facing challenge effectively; promote mutual support among students in a group setting; for students to observe, understand, and appreciate our relationship with the natural world. Winter Expedition is four days and three nights in
duration and takes place in the middle of December. Students are organized in their Bounder groups, in which they have been preparing all semester. There is at least one Instructor per Bounder group who has been with that group throughout the semester. Within each group, students are organized into pairs and threeosomes for camping and cooking. Since the entire class travels as a large group, there are student representatives from each group whose job it is to communicate with the other groups in order to facilitate efficient travel, as well as a designated group to be in the lead for each section of the expedition.

2. Requirements for Conducting the Activity
   a. All requirements for conducting hiking, backpacking, and camping apply.
      i. At least one working cell phone will be carried on Expedition.
      ii. The Adrian Owens formula for staff to participant ratio will be followed: 1 faculty to stay in on the trip with each Bounder group (of up to 12 students) + 1 extra first aider + 4 faculty or TA’s to hike with students needing evacuation. With 3 groups that adds up to a staff of 8.
      iii. All student participants will have successfully completed the preparatory classes, sometimes with written make-up projects and individual conferences with Instructors.
      iv. Faculty/staff, board members, or alumni not directly involved in teaching Bounder but who wish to participate in Winter Expedition in order to understand the program, are encouraged to participate in training activities and will be fully briefed regarding expectations, including activities, clothing, equipment, nutrition, and safety. These participants are encouraged to participate for the full duration of Expedition, in order to minimize the flow of visitors, people leaving early, arriving late, etc.
      v. In general, it is not appropriate for employee children or guests to participate on Winter Expedition.
      vi. Inclusion of all students on Expedition is a high priority. For this reason, a framework for excluding students from expedition such as competency tests, etc., will not be used.

3. Curriculum for Winter Expedition:
   a. Map and Compass orienteering in Sense of Place
   b. Contact splitting, axe care, and tree felling in Tools class.
   c. Fire building, knot tying and shelter building with tarps, hiking with a loaded backpack, cooking over a fire, cold injuries and other first aid, proper clothing and its use, “Etiquette and Expectations”, practice “Overnight” campout.
   d. Students will be briefed on required camping equipment and clothing for expedition by early November so they have enough time to acquire needed items.
   e. Each day of expedition will end with a debrief/check-in to ensure the health and well being of the group and promote learning from the day’s experiences.
   f. See syllabus and lesson plans for Bounder I for details.

Activities: Water Based

Flat-water Canoeing

1. Description and Purpose: Flatwater canoeing refers to tandem or solo canoeing on lakes and slow moving rivers. Students are introduced to flatwater canoeing in Bounder I and/or A Sense of Place as a means of teaching effective teamwork and leadership skills. In other classes, canoeing activities may be used for further skills development, to enhance student proficiency as potential canoe instructors, as a vehicle for exploring facilitation skills and leadership styles, and as a means of accessing lake and riparian environments for research and other educational purposes.

2. Requirements for Conducting the Activity:
a. Instruction and supervision are provided by an Instructor who understands and can demonstrate all of the techniques to be used. In classes focused on canoe skill instruction, the Instructor must have experience teaching these techniques, and must be knowledgeable about safe use of canoeing and rescue equipment, the inspection and storage of this equipment, any basic repair/maintenance necessary, paddling in wind and in other reduced conditions, flatwater rescue techniques, and the recognition, prevention and treatment of hypothermia. In classes in which flatwater canoeing is used in mild conditions as a means of accessing remote locations, the Instructor need not have a technically high skill level as long as s/he is competent in basic paddling and group management, aware of weather conditions, and able to accurately assess group skill level and adjust the activity accordingly.

b. For cold air or water conditions, minimum dress code includes:

c. Splash resistant shell (top and bottom)

d. Non-cotton insulating layer

e. Warm boots, gloves, and hat

f. Set of spare clothes (waterproofed) for each person on the trip.

g. PFD’s are worn fully zipped at all times when on the water.

h. Instructors will not allow students on the water until they are able to supervise and rescue if there is a problem.

i. The group must be kept close to shore in cold or windy conditions.

j. Canoes must be properly secured to the trailer before driving. Plant Manager must be notified immediately of any problems with the trailer or vehicle.

k. Staff to participant ratio will not exceed 1:12.

3. Flatwater Canoe Curriculum:

a. Canoeing skills are taught in a progression from basic to more advanced.

b. Students are instructed and assessed in self-rescue, and canoe over canoe rescue during their first canoe session. This happens during A Sense of Place. In subsequent canoeing classes, the Instructor must assess the need for further training or demonstration of competency in self-rescue and/or swimming ability.

c. Strokes, braces, and leans are taught, assessed, and reviewed based upon their applicability to the canoeing activity.

d. Canoe travel is prefaced by appropriate discussion and/or review of hazards and risk management. Topics may include wind, waves, darkness, cold water, distance from shore, drowning, hypothermia, and appropriate prevention measures.

**Whitewater Canoeing**

1. Description and Purpose: Whitewater canoeing refers to tandem canoeing on faster moving rivers; class I, II and III usually during spring run-off. For the most part, whitewater canoeing takes place in the course of that name. Whitewater canoeing may also take place in other classes as a vehicle for exploring facilitation skills and leadership styles, for improving technical paddling skills, and incidentally as part of a canoe expedition that takes place primarily on flatwater.

2. Requirements for conducting the activity:

   a. Instruction and supervision are provided by at least one Instructor who understands and can demonstrate all of the techniques to be used, including a range of whitewater strokes and braces, paddling strategies, river reading, rescue, and group management. The Instructor must have experience teaching these techniques, and must be knowledgeable about safe use of canoeing and rescue equipment, the inspection and storage of this equipment, any basic repair/maintenance necessary, paddling in wind and in other reduced conditions,
conditions, and the recognition, prevention and treatment of hypothermia. The Instructor must also be knowledgeable about general river safety and accident prevention on moving water. The Instructor must be skilled in paddling and conducting rescues in water of one level of difficulty above the level to be paddled in the class. In general, it is our goal to staff whitewater canoeing activities with two Instructors. Exceptions may be made based upon water level and difficulty, group skill level, and remoteness of the river.

b. All the requirements for conducting flatwater canoeing apply to whitewater canoeing, except that whitewater canoeing only takes place under the supervision of Instructors who are skilled at teaching and managing groups in whitewater.

c. On moving water, a group will carry a First Aid Kit in a waterproof bag, two throw ropes, Z-drag equipment, and several extra paddles.

d. Prior to conducting whitewater canoeing with students, Instructors will paddle or scout from the shore any sections of river to be used, and determine suitability of river condition/level to readiness of the students.

e. Staff to participant ratio will not exceed 1:6.

3. Whitewater Canoe Curriculum:

a. The curriculum for Flatwater Canoeing applies here as well.

b. Students must be fully briefed on river hazards (including strainers, foot entrapment, and cold temperatures), self rescue and group management procedures, basic hydrology, and river reading, prior to their first whitewater experience.

c. In general, only students who have successfully completed the capsize training in A Sense of Place will be allowed to participate in whitewater canoeing activities. Exceptions may be granted at the Instructor’s discretion in the event that the student has documentation of swimming competence. Instructors will assess and evaluate the need for additional training and review of self rescue skills.

d. Students are briefed on safe entry and exit from boats on shore, and on how to safely stop and “grab shore”.

e. Paddle signals are taught as needed.

f. Instruction in strokes, leans, braces, river hydrology, river running strategies, and rescue skills will proceed in a progressive fashion, allowing students to build upon existing skills to cultivate more advanced skills.

**Snorkeling**

1. Description and Purpose: this takes place on the Global Field Study trip to the Bahamas and Belize and the purpose is to experience the underwater ocean ecosystem.

2. Requirement for Conducting the Activity:

   a. Instruction is provided by an instructor that is familiar with the techniques of snorkeling and has lifesaving skills.

   b. An instructor must supervise the student snorkelers in the water at all times.

   c. The student to instructor ratio in the water is not to exceed 8:1.

   d. One instructor will be on shore to have overview of the whole group and in case of an emergency rescue. This instructor must know the location of the first aid kit, be familiar with the emergency procedures and the nearest local landline.

   e. Each instructor will have whistles and students are required to return to the nearest instructor if the whistles are blown.
f. In the case of snorkeling from a boat, in rough water (as deemed by the instructor) or in any case that the instructor deems necessary the students will be required to wear snorkeling vests.

g. The buddy system is required at all times. Students are required to stay within five meters of their buddy. Snorkeling alone is not permitted.

h. A dive flag will be posted at all times in the water near the snorkelers to avoid accidents with boats and water skiers, and students are instructed to stay within the identified limits.

i. Requirement for all night snorkeling is as follows: An instructor needs to be supervising from shore. Each student is to have a primary light. The student to instructor ratio is 4:1. All requirements for snorkeling in daylight described above apply to the night snorkeling.

3. Curriculum for Snorkeling:
   a. General swimming abilities will be checked.
   b. Students will be briefed in proper use of equipment, the buddy system and help signals.
   c. Each student will practice the snorkeling skills in a pool setting and each student’s skill level will be approved for open water snorkeling by the instructor.
   d. Students that do not meet the satisfactory skill level will be required to wear a snorkeling vest for open water snorkeling.

Activities: Incidental

Axe and Saw Use on Trips

1. Description and Purpose: Axes are used in Bounder and OE only for contact splitting firewood. Fires are used in Bounder I to increase student awareness of the nature of the forest around them, educate about different kinds of wood and their characteristics, promote craftsmanship, and improve confidence. Gathering and cutting firewood to length is done with handsaws. Trips for other Sterling College classes that wish to use fires must adhere to these axe and saw use policies. Some trips may forbid the possession or use of axes and saws.

2. Requirements for conducting the activity:
   a. Techniques taught in Tools and Their Application must be followed.
   b. Instruction and supervision are provided by an Instructor who understands and can demonstrate safe axe and saw use, and has experience teaching these techniques. Instructors need to be knowledgeable about safe sharpening techniques and ensure that axes and saws are carried with sheaths in place.
   c. Instructors ensure that a first aid kit is brought into the field, and are trained to provide first aid to control bleeding.
   d. Gloves or mittens must be worn during axe, saw, and knife use, including during sharpening. These should be leather or another heavy shell material.
   e. Boots must be worn during axe use.
   f. Safe spacing between people must be maintained. With contact splitting, safe spacing is considered a radius of 5 feet.
   g. Axes must have sheaths on while being carried. Head attachment to handle must be monitored for security.
   h. The backside of the axe may be used for pounding in stakes.

3. Curriculum for Axe and Saw Use on Trips:
   a. Attention must be paid to whether or not students have completed Tools and Their Application. Transfer students may not have taken this class. Students who have not completed Tools and Their Application must receive proper instruction prior to axe and saw use during trips. This includes briefing on the above guidelines, and instruction in safe technique.
b. Instructors must be prepared to supervise student use of axes and saws and to intervene to ensure safe technique and proper care of equipment.

River Crossing
1. Description and Purpose: river crossings may take place during any Sterling College trip that involves back-country travel. River crossings are not intentionally incorporated into any course or lesson; however if the opportunity or necessity arises, the purpose is to provide students with information and experience that they can use to travel safely across rivers in the future.
2. Requirements for conducting the Activity:
   a. Instruction and supervision are provided by an instructor who understands and can demonstrate and teach safe river crossing techniques.
   b. Whether or not to do the river crossing should be decided based upon:
      i. Condition of group: if one or more people are tired and/or in poor physical or mental condition, the group as a whole can’t handle a difficult crossing.
      ii. Depth and velocity of water: in general, river crossing should not be attempted in water over knee deep if the water is moving rapidly.
      iii. Condition of the bottom of the river: sandy or gravelly bottoms are easier and safer to walk on than rocky or boulder-strewn bottoms.
      iv. Time of day: in general people are less alert and more susceptible to accidents late in the day.
      v. Air and water temperature: high air temperatures in regions where snowmelt is a direct cause of river depth could lead to rising water. Low air temperatures may lead to hypothermia. Low water temperatures can be problematic when a river crossing is time consuming and people lose sensation in their legs and feet.
      vi. Proximity to evacuation points: the more remote the location, the more conservative the decision should be.
      vii. Availability of other options such bridges.
   c. Safe river crossing techniques should be used.
      i. Hip belts should be unbuckled so that if a person falls in they can easily get rid of their pack and not be held under by it.
      ii. Always cross rivers facing upstream, so the pressure of the current is less likely to buckle knees.
      iii. Depending on depth and velocity of water, consider team crossings; two or three people together, holding onto each others’ shoulders; tripod formations, or simply walk in a line facing upstream. Strong walking sticks can be used for balance.
3. Curriculum: Instructors should anticipate the possible need for river crossings and be prepared to instruct the group in safe crossing technique on the spot. Instructors should also pay attention to group assessment when considering a river crossing.

Swimming
1. Description and Purpose: swimming takes place in A Sense of Place during the canoe capsize training, and may occur inadvertently during Bounder II during whitewater paddling. Otherwise it is not built into the curriculum, but occurs incidentally on trips of all kinds.
2. Requirements for Conducting the Activity:
   a. The Instructor will take into consideration swimming ability when determining parameters of swimming activities. The Instructor will also review the following guidelines with students prior to any swimming:
      i. Establish a buddy system. No-one should swim alone.
      ii. Poor or tired swimmers should stay in shallow water.
iii. Students must be instructed to enter water by walking. No diving or jumping is permitted, even shallow dives from water level.
iv. Students must not engage in horseplay such as dunking or throwing rocks.
b. The Instructor should establish a secure area for swimming:
i. The area should be scouted for hazards. Hazards could include rocks, moving water, especially cold water, broken glass, floating debris and vegetation.
ii. The best entry point to the water should be established, to minimize the risk of slipping or injuring feet.
iii. Boundaries should be established that take into consideration ability levels, hazards, and entry points.
c. The Instructor should provide adequate supervision. This may include designating a spotter who remains on shore and keeps track of everyone; it also includes using the buddy system.
d. If a group swims in a designated swimming area (which is generally the best choice), rules of that swimming area apply.

Tree Felling
1. Description and Purpose: Students are occasionally allowed to cut small trees down in Bounder I and other courses in order to obtain dry firewood for campfires. The use of campfires on winter camping trips is an important part of the curriculum and provides opportunities to discuss impact (local and distant), LNT principles and practice, forest regeneration in the Northeast, and regionally specific and responsive approaches to low impact travel. Additionally, the use of fires promotes attention to forest type and tree identification, and a closer bond with the natural environment.
2. Requirements for Conducting the Activity:
a. Instruction and supervision are provided by an Instructor who understands and can demonstrate safe tree felling technique. Instructors need to be knowledgeable about safe use of and care for bow saws.
b. Students are encouraged to collect and use down wood as much as possible. If there isn’t enough down wood, standing deadwood is harvested.
c. Tree felling only takes place in areas in which forest regeneration can support cutting of trees and where some cutting is acceptable with the landowners.
d. Bow saws are used for tree felling.
e. The tree must be dead and four inches or less in diameter.
f. Good planning and proper technique must be used in tree felling.
g. A first aid kit must be available.
h. Sturdy boots, leather gloves or mittens will be worn.
i. Use only a bowsaw to make front cuts and back cuts, leaving a thin uncut hinge. Make sure the stump is cut as low as possible.
j. Yell “clear!” to alert nearby people of the imminently falling tree.
3. Curriculum for Tree Felling: For the full curriculum for tree felling: see lesson plans for tree felling classes in Tools and Their Applications.
a. Attention must be paid to whether or not students have completed Tools and Their Application. Transfer students may not have taken this class. Students who have not completed Tools and Their Application must receive proper instruction prior to tree felling. This includes briefing on the above guidelines, and instruction in safe technique.
b. Instructors must be prepared to supervise student tree cutting and to intervene to ensure appropriate tree selection, safe technique and proper care of equipment.
Appendix A
Emergency Phone Numbers

Sterling College Main Office: 1-800-648-3591
(802)-586-7711
  Main office    x100
  Laurie Laggner x102
  Pavel Cenkl    x140
  Ned Houston    x153
  Barb Stuart    x103
  Adrian Owens   x150
  Anne Morse     x144
  John Zaber     x165
  Micki Martin   x101
  Matthew Derr   x132
  Kitchen        x155
  or use e-mail if overseas and if no phone contact can be made.

Home Phones:
  Matthew Derr (802)-586-2839
  Ned Houston (802)-586-2873
  Pavel Cenkl (802)-586-6966
  John Zaber (802) 586-9973
  Anne Morse (802) 281-4432

Pager: (802)-240-0961
Hardwick Rescue, fire, police: 9-9-1
Copley Hospital: 888-4231
State Police (Derby): (802) 988-4315
Appendix B
Trip Planning Checklist

1. Obtain land use permit or permission
2. Schedule van use
3. Request copies of the medical forms for your students
4. Review and discuss any medical situations that may be problematic with the student
5. Ensure to the best of your knowledge that all members of the trip are suitably briefed, trained, dressed, equipped, and in good health.
6. If you are not trained in first aid, determine who in your group is, and establish if that person is ok with being the designated first responder in the event of a medical emergency. There must be someone on every backcountry field trip who has emergency medical training.
7. Submit a food request sheet to the kitchen
8. Sign out a First Aid Kit from the Wellness Center
9. File a trip plan
10. If using canoes, schedule canoe use with Adrian Owens (or current canoe manager)
11. Ascertain that there is an administrator on call at Sterling for potential evacuation needs
12. Sign out van, document mileage
13. When you return, DO remember to return the van key and sign in. Report any maintenance needs to the Maintenance Department. If you can’t get into the workroom, leave the key in the envelope on the door of the Registrar’s Office.
14. Gas up the vehicle if your trip brings the tank to below one-half full.
Appendix C
Notes on Local River Levels and Difficulty

For website information on water level for the Black River at Coventry:


Black River levels from 200 to 1400 c.f.s. seem okay for most students. Even at 230 cfs it is possible to pin a canoe.

The Lamoille along Route 15 west of the North Wolcott Road has a five foot per mile drop and is Class I.

The Black River from Irasburg to the covered bridge has a twenty foot per mile drop, with sharp bends but few rocks. Generally Class I but can have significant hazards from strainers.

The Black River from below the covered bridge to Coventry has a twenty foot per mile drop, with longer more complex rapids with boulders. This is a class II stretch.

In cold weather (20-25 F) and high water, introductory whitewater classes have occasionally been conducted on the Black River where it crosses the North Craftsbury Rd, where the drop is about one foot per mile.