

FIELD INSTRUCTOR QUALIFICATIONS



A QUALIFIED NOLS FIELD INSTRUCTOR WILL:

1. Have passed and been recommended for hire from a NOLS Instructor Course. This includes a standard 24-day course, a 17-day professional instructor course, or a form of an approved alternative instructor course.
2. Have current¹ wilderness medicine certificate at the Wilderness First Responder (WFR) level or higher and a current adult CPR certificate.
 - a. The WFR certificate has to be from a course that has at least 70 hours of instruction. CPR has to be adult CPR or equivalent with at least four hours of instruction.
 - b. WFR and CPR initial or recertification training must include hands-on practical skill training and assessment observed by a qualified examiner, but can include an online didactic portion.
 - i. WFR and CPR courses that are solely online are not acceptable.
 - c. Have familiarity with and ability to use the NOLS Medical Protocols.
 - d. Current Wilderness First Responder certification is necessary for instructors in an aide role.
3. Meet NOLS essential eligibility criteria describing necessary physical and cognitive attributes.
4. Be at least 21 years old.

FIELD STAFFING PARADIGM

There are three primary field instructor positions:

1. Instructor (I): This is the entry-level position.
2. Patrol Leader (PL): This too can be an entry level position, but has mid-level responsibilities. The PL will take over CL responsibilities if the CL leaves the course or becomes incapacitated.
3. Course Leader (CL): This is the highest level position. The CL is the lead instructor and supervises the PL and I positions.

There are also two training positions:

1. Aide: This is for current instructors who need more training in a skill/course type before being assessed as an instructor or patrol leader. An aide is in addition to the predetermined number of instructors needed for a course.
2. Instructor in training position (IIT): This is for selected prospective instructor course candidates to whom we are giving an opportunity to go on a course. The goal is for them to gain experience to take an instructor course. An IIT is not an instructor.

Most field courses are staffed with a team of two, three or more field instructors depending on the predetermined instructor/student ratio guidelines. A two-person team is the smallest team in most circumstances. A two-person instructor team most often consists of a course leader and a patrol leader. In some situations, an instructor team may consist of a course leader and an instructor. These situations will be approved on a case-by-case basis after agreement among the field staffing office/director, risk management director, and the campus director. Once a course begins, instructor teams may be forced to change if one of the members is evacuated.

Leave No Trace (LNT) courses, certain Alumni trips, and possibly some outreach or other courses are allowed, on a case-by-case basis, to utilize a non-NOLS person such as a government land agency partner staff person or a qualified (as determined by NOLS) guide as part of the instructor team.

Some instructor seminars (internal staff training courses where participants are qualified field instructors) may be staffed with a single instructor rather than an instructor team of two or more. These include advanced skill seminars in which all participants are assessed in the skill area, and avalanche and other seminars that involve day-trip activities rather than

¹ Current means not expired at the start of a field contract. People in the Wilderness Medicine re-entry period are expired.

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overnight camping. In most of these situations, we will still operate within our standard supervision ratio guidelines for the given activity. Additional exceptions may be allowed on a case-by-case basis.

FIELD INSTRUCTOR SKILLS AND SKILL ASSESSMENTS

Field instructors are evaluated against the NOLS Field Instructor Skills (FIS) documents that list the minimum skills field instructors need to be able to perform in specific skill areas and positions. Due to the nature of our courses and the environments we work in, it may not be possible for someone to demonstrate a specific skill because the opportunity to do so was not available. Skill assessments, then, are both objective and subjective.

Objective: Demonstrated ability. Many skills are specific and tangible such as tying knots, performing rescue skills, rock climbing at a specific classification, navigating the terrain, and ability to teach.

Subjective: Assumed ability given current evidence. Some skills are subject to variations in environmental conditions, seasons, or other factors and there may not have been opportunities for an individual to demonstrate these skills, or might include a human factor trait such as “remaining calm and composed when climbing on exposed terrain.” A course leader or other instructor may be able to make a presumptive assessment based on the instructor’s other performance whether the instructor can, at the time of assessment, meet the listed skill.

The FIS is not a checklist, rather, it is a judgment of the person’s observed performance combined with a qualitative assessment of the person’s ability which is used to make a recommendation for promotion.

RECOMMENDATIONS FOR PROMOTION AND POSITION ASSESSMENTS ACROSS PROGRAM AREAS

The process for promoting a field instructor to a new position and/or assessing an instructor to work in other programs is collaborative, and involves the course leader, co-instructors, program supervisors and/or campus directors, and is ultimately the responsibility of the field staffing office (FSO).

Instructor Assessments and Recommendations

1. Co-instructors, particularly the course leader, along with program supervisors, and campus directors make recommendations to the FSO for someone to be promoted or work in another program area.
2. The people making assessments and recommendations need to have relevant NOLS work experience in the program area on which to base their assessment, for example:
 - a. A hiking CL can recommend the PL they just worked with to be a hiking CL at the same location.
 - b. A hiking CL with experience as a hiking CL or PL at another location can recommend the PL they just worked with to be a hiking PL at that other location
 - c. A hiking CL with experience as a hiking CL or PL at another location can recommend the PL they just worked with to be a hiking CL at that other location **IF** the person had previous NOLS field work experience at that other location.
3. Generally a person would not work their first course as a CL at a location where they have never worked; they’d work as an I or PL first to gain familiarity with the terrain and location specific systems.
 - a. In some cases a highly experienced CL might work as a CL at a location that they have never worked at before. This would be decided on a case-by-case basis by the FSO and the location program team.
4. An instructor (at any position) or program supervisor, cannot make a recommendation for someone to work at a location or program area in which they have no experience; they have no basis for making such a recommendation.
5. The preceding conditions would apply to certain seminars where assessments can be made. IC/seminar instructors can make assessments and recommendations for those participants to work in locations and program types in which the IC/seminar instructor(s) have NOLS field work experience.

Exceptions

The above describes the general process for assessments and promotion, but it can become more complicated and that is the role of the FSO to navigate. The FSO usually has access to an individual’s entire NOLS work history and non-NOLS experience, which combined with other variables may lead to the FSO wanting to deviate from the general process.

RESUME ASSESSMENTS

Resume assessments may be used for current field faculty and recent IC graduates to be assessed to work in skill areas in which they were not assessed through their course work or on their IC. These individuals need to have substantial previous experience outside of NOLS in the skill and/or leading the particular course type. Resume assessments might also be considered to change NOLS assessments within a skill type, e.g. changing tiers in sea kayaking or rock climbing.

Resume assessments are used sparingly. The individual needs to be able to provide a documented history of their experience (resume and trip log). Resume assessment decisions are made collaboratively with the risk management director, field faculty development lead, program directors or supervisors, the field staffing manager, and others as necessary.

FIELD INSTRUCTOR SKILLS

FUNDAMENTAL SKILLS: RISK MANAGEMENT, LEADERSHIP, EDUCATION, AND ENVIRONMENTAL STUDIES



INTRODUCTION

This is a list of minimum skills that have been deemed significant for field instructors to be successful. It is not an exhaustive list. It is organized by position and is cumulative, e.g. a patrol leader needs to be able to meet the instructor level skills and the patrol leader skills. This list is used to augment assessments for promotion, which are both objective—demonstrated ability, and subjective—assumed ability given current evidence. Due to the nature of our field courses and the environments we work in, it may not be possible for someone to demonstrate a specific skill because the opportunity to do so was not available. In other words, this is not a checklist. Recommendations for promotion are informed by a person's observed performance and a qualitative assessment of their ability.

CORE SKILLS

All instructors are expected to be able to

1. Live comfortably and be able to care for one's self in the environment and have reserve capacity to care for students regardless of conditions and circumstances.
2. Be organized and efficient and be an exemplary role model in camp and while traveling.
3. Teach and practice responsible habits that promote the health and well being of self, students, and group.
4. Represent and further NOLS educational traditions, learning goals and objectives, and mission.
5. Support and craft an effective team and demonstrate excellence in expedition behavior.
6. Effectively teach and coach students in outdoor living and leadership skills through role modeling, speaking to a group, debriefing experiences, and working one-to-one with students.
7. Reflect and learn from their experiences leading and teaching courses.

RISK MANAGEMENT

A. THE INSTRUCTOR WILL:

1. Know how to avoid, evaluate and care for medical problems in wilderness settings.
2. Understand NOLS risk management policies, procedures, and emergency response and management plans.
3. Understand and follow NOLS Accepted Field Practices (NAFP) and Expedition Course Container Practices (ECCP) as applicable for program type.
4. Understand the majority of the hazards and risks inherent in the specific course environment, be able to manage the common and obvious risks and take appropriate action regarding risks not well understood.
5. Be able to, or show potential to respond to stressful situations, e.g. injury, missing student group, and hazardous conditions, in a manner that results in the desired outcome and inspires confidence and good performance in others.
6. Be skilled in the use of the equipment for the specific course type.
7. Display self-awareness regarding the ability to manage students in technical terrain the course may travel through and have judgment to know when to back off, seek alternatives, or wait for assistance from co-instructors.

B. THE PATROL LEADER WILL:

1. Will effectively manage the group in the course environment if the CL becomes ill, injured and/or evacuated until a replacement CL joins the course. This may require supervising travel of all participants to a pre-arranged site or staying in place until replacement staff arrives.
2. Manage the inherent risks of the specific course environment within the abilities of the group and apply knowledge to unfamiliar and adverse situations.
3. Clearly establish limits and boundaries of student behavior and independence.

C. THE COURSE LEADER WILL:

1. Be responsible for the course, including supervision of co-instructors and students while managing risk and attaining the course's educational goals.
2. Have primary responsibility for risk management for the duration of the course.
3. Be knowledgeable and skilled in the relevant NAFP for the course type and coach co-workers in the use and application of those NAFP.

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4. Understand and be able to utilize NOLS Medical Protocols, NOLS Student Behavior Field Protocols, evacuation procedures, serious injury protocols, and portable communication technologies in accordance with NOLS' expectations for their use.
5. Have the ability to manage emergency situations and execute evacuations by making effective decisions, and being prepared to be physically involved in carrying out the emergency response as necessary.
6. Assess the risk management abilities of co-instructors and provide them with challenges that increase their potential to manage risks on future courses.
7. Use foresight, flexibility, and experience to respond to and handle unexpected situations that may arise.
8. Be responsible for achieving the Learning Goals and Objectives for Risk Management.

LEADERSHIP

A. THE INSTRUCTOR WILL:

1. Understand the concepts of the NOLS Leadership Model: **four** types, **seven** skills and **one** individual style.
2. Demonstrate the behaviors outlined in the seven NOLS leadership skills.
3. Understand how aspects of their own identity, such as race, gender, nationality, sexual orientation and socio-economic status, may impact the I-team and course, and act with those impacts in mind.
4. Maintain an active and reflective learning process to develop equity and inclusion skills; learn to manage the tension associated with being a member of a dominant group when applicable.
5. Be skilled and experienced traveling and leading others in remote outdoor environments.
6. Work and lead within the scope of their NOLS training.
7. Competently lead and be responsible for a small group of students (up to six) for up to three days (possibly longer) without the presence of another instructor, e.g. on small group with instructor or during an evacuation.
8. Lead/teach students in non-technical aspects of the curriculum and co-lead/teach technical aspects.
9. Offer input on short and long-term course plans.
10. Be responsible for clearly understanding other instructors' decisions and decision-making processes (including the course leader's).

B. THE PATROL LEADER WILL:

1. Teach and coach students using a variety of methods on leadership types and skills as described in the NOLS Leadership Model.
2. Use clear verbal and non-verbal communication when giving feedback to the instructor team and to students.
3. Understand how racism, sexism, transphobia, homophobia, classism and other systems may influence the course and take action to mitigate those impacts.
4. Use *Inclusive Course Culture on NOLS Expeditions* as a guide to establish formation phase strategies, monitor an inclusive culture, and respond appropriately to biased language and mistreatment.
5. Use the *NOLS Student Behavior Field Protocols* as a tool to maintain an inclusive, supportive course culture and guide responses to challenging or unacceptable student behavior.
6. Apply appropriate conflict management tools within the instructor team and with the student group.
7. Collaborate with the course leader by giving them a balance of positive support, coaching and corrective suggestions.
8. Challenge other instructors' decisions and decision-making processes (including the course leader's) in a constructive manner if not in agreement with their course of action.

C. THE COURSE LEADER WILL:

1. Apply the NOLS leadership model as a framework for the course curriculum.
2. Design, implement, and supervise a logical progression of leadership skills development for students to achieve stated course objectives and group goals.
3. Create an effective expedition team:
 - a. Use personal leadership ability to organize and implement plans effectively on a daily and long-term basis, keeping others informed.
 - b. Utilize designated, peer, and self-leadership styles in combinations that maintain a responsible balance between controlling structure and group participation.
 - c. Establish an atmosphere that is conducive to clear and open communication, with an expectation for giving and receiving timely feedback within the instructor team and with students.

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- i. Hold periodic instructor team “check-ins” at regular intervals (within the first 72 hours and then weekly) where feedback can be given and i-team dynamics discussed. Similarly, ensure that periodic “check-ins” are held with students, typically one-to-one.
4. Offer specific steps and feedback for development and advancement, and articulate current proficiency levels for co-instructors.
5. Assess the equity and inclusion skills of the instructor team, steer co-instructors toward opportunities for growth in this area, and use the strengths of the entire team.
6. Supervise intervention with students who display unacceptable or inappropriate behavior. Recognize when such behaviors exceed the ability of NOLS and when such behavior poses a safety concern (including mistreatment). Take appropriate steps to document observed behavior, call for support when appropriate, and possibly evacuate the student.
7. Facilitate effective briefings and debriefings with students and instructors to promote and facilitate reflection and learning from activities and events.
8. Supervise and model effective evaluation writing.
9. Complete all required paperwork and other documentation as needed to record events that occurred during the course and to document student and staff performance.
10. Be responsible for achieving the Learning Goals and Objectives for Leadership.

EDUCATION SKILLS

A. THE INSTRUCTOR WILL:

1. Be familiar with and utilize as necessary NOLS curriculum materials such as the NOLS Learning Goals and Objectives and Educator Notebook series.
2. Be able to prepare lessons, design educational activities, deliver curriculum content, and guide reflection.
3. Facilitate effective briefings and debriefings.
4. Assess learning and give feedback through informal conversation, one-on-one check-ins, and written evaluations.
5. Participate in fostering a positive learning environment.

B. THE PATROL LEADER WILL:

1. Be able to teach all core curriculum and 75% of pertinent classes for the particular course type.
2. Teach clearly and effectively.
3. Adapt curriculum plans to the audience, environment, and context.
4. Coach students with class preparation and presentation, when applicable.
5. Assist peers with development of their teaching style and ability.
6. Teach effectively with minimal preparation when necessary.

C. THE COURSE LEADER WILL:

1. Be able to teach 100% of the curriculum for the particular course type.
2. Provide expertise and assistance to co-workers in preparing classes and developing as educators.

ENVIRONMENTAL STUDIES

A. THE INSTRUCTOR WILL:

1. Engage students in exploration of the relationships between humans and Earth by consistently encouraging observation and curiosity.
2. Have some knowledge of natural sciences (ecology, geology, botany, zoology, glaciology, oceanography, etc.) relevant to the course environment and activity. Share that knowledge with students and co-instructors. Continually work to gain additional knowledge through curiosity, observation, and reflection.
3. Practice sound Leave No Trace principles and integrate them into a personal ethic.
4. Teach LNT principles as applicable to the particular course area/environment and consistently implement practices with the group.

B. THE PATROL LEADER WILL:

1. Engage students in exploration of the relationships between humans and Earth by connecting ecological concepts to other aspects of the NOLS curriculum, specifically outdoor skills, risk management, and leadership.

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2. Engage students in exploration of the relationships between humans and the land in the particular course area by sharing knowledge about local human history, including Indigenous peoples who live there and agencies that manage the land.
3. Facilitate observation and reflection opportunities that enable students to develop a sense of place locally and support development of life-long environmental ethics.
4. Actively inspire thoughtful discussion of history, facts and potential solutions to specific environmental issues including climate change.

C. THE COURSE LEADER WILL:

1. Integrate exploration of all aspects of the relationship between humans and Earth, including natural history observation and interpretation skills, into the course progression.
2. Be responsible for achieving the Learning Goals and Objectives for Environmental Studies.

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SEA KAYAK



INTRODUCTION

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Sea kayak program areas are organized into three tiers based on objective challenges beginning on page three. Skills for each program area in addition to the skills on pages one and two are listed there.

A. THE INSTRUCTOR WILL:

1. Demonstrate effective boat management, hold position, and assist with pod management in conditions up to 15-knot winds and 3-ft waves on all points of paddle.
2. Be able to teach and demonstrate basic sea kayaking techniques and introductory class topics; kayak anatomy, care of equipment including lifting/carrying kayaks, kayak packing, launching and landing, and chart reading. Particular NOLS locations may specify additional skills.
3. Demonstrate basic paddle strokes with proper form including forward, reverse, draws, stern rudder, forward and reverse sweeps, low and high braces.
4. Be able to perform and teach the following rescue skills/techniques in 10-knot winds and 2-ft waves:
 - a. Wet exits
 - b. Single unassisted (w/& w/o paddle float)
 - c. Single assisted
 - d. Double unassisted
 - e. Cockpit switches on the water
 - f. Set-up and use a cockpit attached tow system and/or waist belt tow (clipping, getting out, choice of long or short tow, when to use and when to discontinue use)
 - g. Be able to swim a short distance (100 ft) wearing usual paddling layers and PFD.
 - h. "Hand of God" rescue
5. Be able to demonstrate and teach the use of paddle and/or hand signals.
6. Be familiar with surf landing procedures, and be able to assist in facilitating surf landings.
7. Be able to negotiate surf launches and landings (2–3ft. surf), while maintaining control of the boat (no surfing).
8. Understand the concepts of seapersonship (the art, knowledge and competence of operating a ship, boat or other craft on water) e.g., the NOLS sea kayaking decision-making triangle (NOLS Sea Kayak Educator Notebook, 2015, page 70)) and can apply them in analysis and decision-making.
9. Recognize when changes in conditions are occurring and can clearly articulate them to staff and students.
10. Know how to operate a vhf radio and satellite phone. Be familiar with EPIRB protocol.
11. Be able to supervise students during recreational swimming (refer to NOLS swimming and wading practices).

B. THE PATROL LEADER WILL:

1. Demonstrate effective boat management, competent strokes and rescues, and comfort in conditions greater than 15-knot winds and 3-ft waves on all points of paddle. Demonstrate effective boat management in areas of moderate currents (up to 2-3 knots).
2. Be able to demonstrate, teach, and coach paddle strokes, including: forward, reverse, draw stroke, bow and stern rudders/pry/draw, forward and reverse sweeps (with edge), high and low braces, and sculling draws and braces.
3. Be able to perform and teach the following rescue skills/techniques in 15 knot winds and 3-foot seas.
 - a. Single unassisted (w/& w/o paddle float)
 - b. Assisted (including using a sling)
 - c. Double unassisted and assisted
 - d. Scoop
 - e. Back deck carry of a swimmer
4. Be able to manage and rescue students on the water (paddling gear and PFD) when separated from their boats
5. Have a working knowledge of basic navigational techniques (charts and compass use), piloting, and dead reckoning. Know operating area specific navigation rules.
6. Be able to effectively route-find at both the "passage" level (navigating from camp to camp) and while on the move (evaluate and lead moves and crossings while compensating for currents/crosswinds, paddling on a bearing and

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navigating charted hazards and vessel traffic with working knowledge and application of International Regulations for Preventing Collisions at Sea 1972. (Ocean NAFFP, COLREGS).

7. Be able to lead a group of kayakers, in building conditions, to shore (winds up to 15 knots, seas 3 ft.) and land without significant incident.
8. Be able to teach and facilitate surf launchings and landings (2-3 ft.), maintaining control of their boat (no surfing).
9. Be able to manage a pod of students on a multiple-day small group expedition in protected waters.
10. Be able to evaluate and articulate the effect of water conditions, currents, wind and, quickly changing weather patterns, and how they interact and affect boat control and travel. Be able to make decisions and act upon those as needed.
11. Be able to perform basic kayak repair.
12. Be able to define and set up swimming parameters for recreational swimming.
13. Be familiar with cold water paddling practices (excluding Mexico). This includes layering for conditions (air and water temperatures), different capsizing avoidance thresholds, quick rescue needs and re-warming strategies.
14. Instructors with with New Zealand Outdoor Instructors Association (NZOIA) credentials are considered equivalent to NOLS PLs: NZOIA Sea Kayak 1 = NOLS PL tier 3 and NZOIA Sea Kayak 2 = NOLS PL tier 2

C. THE COURSE LEADER WILL:

1. Be able to demonstrate and teach advanced paddling techniques, blending strokes and rolling.
2. Be able to facilitate rough water landings in 20-knot winds and 4-foot wind waves (excluding Prince William Sound).
3. Be able to demonstrate, teach and supervise surf zone paddling skills as appropriate for local conditions.
4. Be able to recognize and manage group travel in areas with currents. Demonstrate, teach, and supervise skills development for paddling in currents, as appropriate for local conditions.
5. Be able to teach all skills required for travel through areas with currents, tides, outer ocean, surf zones, and traffic if the route covers such features.
6. Be able to demonstrate, teach and coach advanced rescues/re-entries including, bow rescue, re-enter & roll (with or without paddle float).
7. Be able to navigate in adverse conditions (low visibility, heavy rain, wind, and traffic).
8. Be able to anticipate, predict, plan and react to the effect of water conditions, wind and weather patterns, and how they interact.
9. Provide effective management and supervision to a pod of novices in Beaufort 5 conditions (17 to 21-knot winds, waves, currents, surf), and direct and supervise other staff.
10. Be familiar with local weather patterns in course area.
11. Have self awareness to identify and communicate conditions or situations in which they can and cannot effectively manage and supervise a group and/or other staff.
12. Clarify with co-workers what conditions are suitable for travel with students and identify each instructor's experience and skill level, as it relates to daily travel plans; both as large group (with CL present) or in smaller groups (when CL is not present).
13. Demonstrate effective boat management, paddle stroke, rescue skills, and be able to paddle in conditions greater than 20-knot winds and 4-ft waves on all points of paddle.
14. Be aware of potential hazardous marine organisms, such as whales, sea lions, jellyfish, urchins, etc, and ways to avoid and/or respond to such encounters.

SEA KAYAK SURF CAMP SKILLS and SEA KAYAK SEMINARS

Surf practice is common on seminars. The Mexico surf camp is a special section added to some selected Baja semesters.

1. **Surfzone safety:** evaluate surf break conditions, hazards and suitability; surf zone practice management: beach positioning, boundaries and collision avoidance. Supervise recreational swimming in the surf.
 - a. Have a working knowledge of applying NOLS Backcountry swimming NAFFP's in the open beach and surf.
2. **Skills (On the water):** launching and landing through surf, with sea kayaks and shorter kayaks; riding waves: timing, taking off, diagonal run, rudders, maneuvers; side surfing with control.
3. **Rescue techniques:** swimming in surf (with and without kayak), assisting swimmers in the surf.

SEA KAYAK TIERS

The areas we sea kayak are organized into three tiers. Tier 1, Patagonia, is our most challenging area due to objective factors that have greater significance than Tier 2 or Tier 3. Tier 2 areas may necessitate additional field instructor skills than the standard skills. The objective factors that distinguish the tiers include, but may not be limited to: weather, remoteness, open ocean exposure/sea state factors, and technical paddling. Tier 2 and Tier 3 areas, while still having significant objective hazards, are more predictable.

Field instructors must meet the skills for the position worked as listed above and any additional expectations that are listed below.

TIER 1	
Patagonia	
Instructor	<ul style="list-style-type: none"> • Be able to assist in managing a group in ocean swell, and outer coast hazards including clapotis, boomers, rock gardens, current lines, tide rips, and williwaws, along sections of exposed coastline. • Be able to maintain boat control and pod travel when conditions change quickly and unexpectedly while on the water.
Patrol Leader	<ul style="list-style-type: none"> • Be able to travel through ice and near glaciers. • Be able to assist with pod management and supervision when conditions change quickly and unexpectedly while on the water. • Be able to understand local weather patterns (no VHF weather forecast available) and manage quickly changing conditions.
Course Leader	<ul style="list-style-type: none"> • Be able to plan daily travel routes and contingencies with minimal route information in areas with variable and quickly changing conditions • Be able to oversee and take charge of pod management and supervision when conditions deteriorate quickly and unexpectedly while on the water without being able to confer with other instructors. • Be experienced in and able to manage and coach a group in ocean swell, and outer coast hazards including clapotis, boomers, rock gardens, current lines, tide rips, and williwaws, along sections of exposed coastline with limited take out locations. • Be able to instruct and travel through ice and near glaciers with novices if the route includes such features.

TIER 2	
Baja	
Instructor	<ul style="list-style-type: none"> • Be able to maintain boat control and pod travel when conditions change quickly and unexpectedly on open waters. • Be able to personally negotiate unexpected surf without direct supervision from other PLs or CL
Patrol Leader	<ul style="list-style-type: none"> • Be familiar with hazards related to snorkeling and be able to supervise this activity. <ul style="list-style-type: none"> ◦ See NAFP for Mexico Diving. • Be able to understand local weather patterns (no VHF weather forecast available)
Course Leader	<ul style="list-style-type: none"> • Be knowledgeable of hazardous sea/desert life and be able to manage associated risk and respond appropriately.

British Columbia	
Instructor	<ul style="list-style-type: none"> • There is no instructor level position for these courses.
Patrol Leader	<ul style="list-style-type: none"> • Be experienced in and able to assist in managing a group in ocean swell, and outer coast hazards including clapotis, boomers, rock gardens, current lines, tide rips, along sections of exposed coastline. • Hold a restricted radio operator's license.
Course Leader	<ul style="list-style-type: none"> • No additional expectations

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	San Juan Islands Washington
Patrol Leader	<ul style="list-style-type: none"> • Be able to provide assistance in pod management and rescues in currents up to 3 knots.
Course Leader	<ul style="list-style-type: none"> • Be able to use tide charts AND current charts to anticipate current hazards and plan where/when to travel. • Be able to manage groups in strong current areas with associated hazards, ie: eddy lines, whirlpools and standing waves. • Be able to anticipate and negotiate crossings with significant levels of other boat traffic from cargo ships and ferries to small pleasure boats.

	TIER 3
	Prince William Sound
Instructor	<ul style="list-style-type: none"> • No additional expectations
Patrol Leader	<ul style="list-style-type: none"> • Be able to travel through ice and near glaciers
Course Leader	<ul style="list-style-type: none"> • Be able to instruct and travel through ice and near glaciers with novices if the route includes such features.

	New Zealand, Maine, Bahamas
	<ul style="list-style-type: none"> • There are no instructor level positions and no additional expectations for PLs or CLs.

SEA KAYAK PRACTICES



It is NOLS' position is to avoid unplanned rough water travelling beyond the abilities of our students to control their boats and/or staff to supervise.

KAYAK OUTFITTING REQUIREMENTS

1. One bilge pump or bailing device per cockpit
2. One spare paddle per instructor kayak
3. One tow system per instructor kayak (must be set-up to be quickly deployed while travelling)
4. One paddle float per single kayak
5. A selection of appropriate flares for day and night use per course. Where local regulations exist we will comply. Regulations can change without notice, so should be verified each season.

Regulated	Unregulated
Chile: Requires one type C flare per person and one type A per course.	U.S., Canada, Norway, Mexico, New Zealand: Suggested flares include: 4 x Type-B Flares (such as skyblazer) 3 x Type-C Flares (hand-held torches) 1 x Type-D Flare (smoke)

6. A signal mirror per instructor kayak.
7. A sound signaling device (horn) per course (except Mexico) for signaling other vessels
8. At least one VHF radio per course and instructors will have radio certifications as necessary per local regulation.
9. A whistle on each PFD
10. Each instructor should have an available light source while travelling if there is a potential to encounter darkness/low light conditions. A headlamp with a blinking light feature is useful.
11. Each kayak must have a set of maps/charts of the area
12. Adequate floatation is necessary at all times while on the water, defined as:
 - a. A non-bulk-headed single must have a waterproof sea sock. It must also have bow and stern float bags and/or sufficient waterproofed gear (with air trapped inside) to keep the boat afloat in the event of a swamping.
 - b. A double kayak without a center bulk-headed storage hatch must have two waterproof sea socks, and correctly installed and maintained hatches and bulk-heads
 - c. Single kayaks with hatches/bulk-heads fore and aft, and double kayaks with a center hatch/bulkhead system (in addition to bow and stern) must have hatches and bulkheads correctly installed and maintained.

WET EXITS

The following is an excerpt from the NOLS Sea Kayak Educator Notebook, page 13, 2015. Practicing wet exits is useful very early in the course. Perhaps on the first day. It is good practice to acquaint the students with how to get out of the boats before they attempt to make their first move in kayaks. Many instructors will require a full practice session before the first move. Others may simply review the process and go through a land demonstration before a first move. Wet exits [must] be practiced at some point, however, as it is a critical skill.

ROUGH WATER PRACTICE REQUIREMENTS

1. Each instructor kayak must be equipped with a tow system, spare paddle and signaling devices.
2. Site assessment factors include that in the event of a capsize, the paddler/swimmer and boat have a safe run-out, being defined as either a gentle beach, or enough sea room to allow sufficient time for a rescue in rough conditions.
3. A double kayak equipped with rescue gear and 2 instructors (or 1 student in the bow) should be on the beach or nearby on the water, and ready to assist.

4. A maximum ratio of 5:1 student/instructor. This ratio should always be a conscious decision, based on conditions, and instructor comfort level.
5. Conditions should not exceed the ability of the instructor managing the exercise to execute a rescue or tow.

KAYAK SURFING REQUIREMENTS

1. All surfers must wear a helmet at all times
2. 1 person on shore (beach buddy) per surfer on the water, watching for capsize, trouble
3. Establish a signaling system for calling paddlers off the water if conditions get too big, and for communicating with/directing people who drift outside the surf zone
4. When practical station an instructor on the water, equipped with tow system and signal devices, positioned outside the surf zone, to coordinate student paddlers.
5. A safety boat with a tow system and signaling devices, ready to launch and assist with a rescue if additional help is needed. Safety boats and people on shore should not enter the break zone to rescue a capsized paddler. An exception to this guideline would be in the event that a capsized paddler in the surf zone is unable to wet-exit their kayak, or otherwise prevented from reaching shore on their own.
6. Site assessment for a surfing exercise should determine that in the event of a capsize, wind/wave directions are such that the paddler will have a safe run-out

MARINE MAMMAL PRECAUTIONS

1. Persons should maintain a distance of 100 yards (100 meters) from marine mammals including seal/sea lion haul-outs (and/or adhere to local regulations)
2. Marine mammals should always be left an avenue for travel, not be forced to change their course if travelling, and not be encircled or pinned between boats and shore.
3. In the event that a whale approaches at an uncomfortable distance, bang on the hulls of kayaks to announce the group's presence.

EVACUATION PROCEDURES



This document describes the standard evacuation procedures and considerations used at NOLS. Individual NOLS locations adapt these procedures to fit their specific local circumstances and resources.

NOLS EVACUATION PHILOSOPHY

NOLS models self-sufficient wilderness expeditions, and thus expects our courses, if possible and in the best interest of the patient, to run their own evacuations within the School's evacuation support system. Within this guiding philosophy, we will plan the most appropriate and effective evacuation. In some cases, this implies the use of non-NOLS emergency medical, rescue or other evacuation resources.

PLANNING

The more you know about available resources, the wiser your decisions will be during an evacuation. Prior to going to the field, study your route and consider the possibilities for evacuation.

- Where are you farthest from a road?
- When do you cross obstacles such as passes or rivers that may impede evacuations?
- What unusual road heads or shortcuts may be viable alternatives?
- Which additional maps do you need to find them?
- Will extreme weather change your options?

The program supervisors will have advice on specific evacuation scenarios, and can provide the experience gained with other courses.

ASSESS THE PATIENT/SITUATION

- Perform the necessary first aid and control the scene. A thorough patient assessment is essential to making a wise decision regarding method and urgency of evacuation. Use available resources and information including
- NOLS Medical Protocols
- NOLS Wilderness Medicine book
- Experience and training of the instructor team.
- For behavioral incidents refer to Student Behavior Protocols <https://drive.google.com/open?id=1DchT-Wh-Vk4leeKbGh75Fu9lDbsFF9Lo>

DEVELOP EVACUATION PLAN

Determine the type of evacuation needed. Consider:

- | | |
|---|--------------------------------|
| • Urgency of the situation | • Group's technical abilities |
| • Patient's ability to walk | • Group's experience |
| • Need for helicopter, plane, boat or other vehicle | • Weather factors |
| • Distance to the roadhead | • Communication possibilities |
| • Difficulty of the terrain | • Available outside assistance |
| • Group's physical strength | • Location logistics |

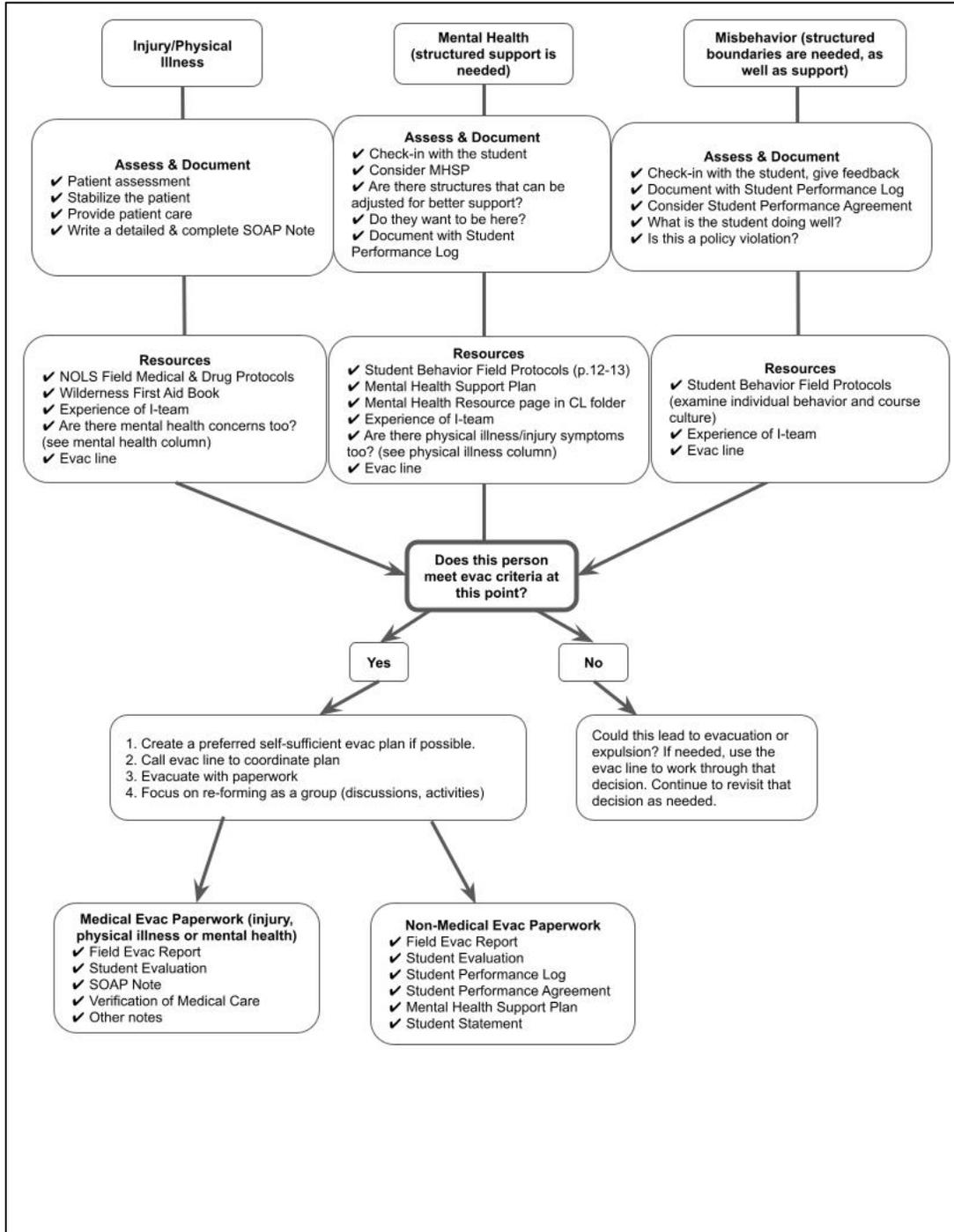
Give each of these points conscious thought. Verbally examine the "why's" of each decision. It will facilitate thorough planning and enhance understanding of the plan for the entire team.

ORGANIZE

Assume leadership and delegate responsibilities. Keep everyone gainfully occupied. Think through the scenario from camp to roadhead and back to the course, including contingencies for the inevitable changes. Details are important; small omissions in planning can have great consequences and tend to multiply over time. Organization and travel during evacuations is often slower than anticipated, and plans must be laid for altered timetables or equipment failure. Always plan for things to go slower.

DOCUMENT

Record patient’s condition on the Evacuation Report Form and/or use SOAP notes on additional sheets. Record the mechanism or injury if applicable. For serious incidents sketch or photograph any pertinent or relevant environmental factors that may have contributed.



COMMUNICATING WITH THE LOCATION

When feasible most locations want to be notified (typically via satellite phone) once an evacuation decision has been reached. This allows them to provide better support to the course and the evacuee.

THE USE OF ELECTRONIC COMMUNICATION DEVICES IS AS FOLLOWS:

1. The primary use of satellite phones or PLBs is for notification from the field to school management of the need for emergency assistance in a matter of life or limb.

2. Other times when the use of the satellite phone is appropriate is in the following situations, please call the location:
 - To seek medical advice beyond the scope of available resources.
 - To manage evacuation procedures once an evacuation is deemed necessary.
 - To report lost students (24–36 hours overdue or if other factors create greater urgency) or runaway students.
 - To notify location support staff that major logistical changes are necessary, e.g. change of road heads due to weather or other circumstances.
 - To discuss difficult student behavior problems that cannot be handled using the Student Behavior Protocols.

BEFORE YOU CALL:

In order to ensure efficient communication and planning it is best to be prepared prior to calling. Please **KNOW WHAT YOU WANT** so that the location program staff can provide the best possible support.

- Determine if you are seeking advice OR informing the location of your potential plans
- Prepare focused questions for the evac coordinator or program staff
- Be able to take notes (have a pen/pencil and paper ready)
- Have your documentation ready
 - Medical SOAP NOTE
 - Non-medical student performance agreement, performance log, and/or other documentation
- Have your evacuation plan ready
 - Patient's first and last name
 - Know your location
 - Know your expected timetable for the evac.
 - Be able to recite your evac plan
 - State requests for additional resources (gear, people, food transportation, support)
 - Be prepared with a back-up plan

NOLS EMERGENCY CODES:

In cases of serious injury/illness or fatality, the emergency codes are to be used when contacting the branch. Use these codes **ONLY** in emergency situations. In these situations be succinct! Assume that the call will get cut off and that you need to relay the most important information first.

Plan your message.

Do not shorten codes to the initial letter; use the entire word:

ALPHA = Critical - single life threatening emergency, urgent response required.

BRAVO (+ # if needed) = Situation stable, transportation needed.

DELTA = Single fatality.

ECHO + #involved = Critical, multiple life threatening injuries or illnesses, urgent response required.

ZULU + # involved = Multiple fatalities.

NOLS will respond to Alpha and Echo with helicopter (as conditions permit) with an EMT, paramedic, or flight nurse on board.

EXAMPLE SAT/CELL PHONE CONVERSATION:

ring ring - hello this is NOLS RM

caller: Hi this is Drew Leemon on PQR 5/4/15. I have a Bravo situation and request a helicopter for transport of a seriously injured student.

EC: OK, you have one student with a serious injury and need a helicopter?

Caller: Correct. Let me give you our location. Are you ready?

EC: yes, go ahead

Caller: we are at XXX lake, lat xx, long xx. (NOLS generally uses UTM, pilots generally use Lat/Long)

EC: OK I'll repeat that you are at XXX lake, lat xx, long xx

Caller: correct. The patient's name is xxx xxxxxx

If the phone cuts out and you can't talk again, you have enough information to respond. If you can keep talking then you can get more information or discuss a different evacuation plan, get weather data, get the patient's name etc.

RUNNER/MESSENGER TEAMS AND EVACUATION TEAMS

If electronic communication is not possible and as a backup to electronic communication, then runner/messenger teams can be sent to a roadhead to find a landline telephone to communicate to NOLS location management. The evacuation may be conducted without additional support. Generally, this is when the evacuee is ambulatory or in rare cases is carried out of the field.

The ideal minimum group size for an evacuation or runner team is four; small enough to be efficient, large enough to allow two to remain together if someone in the party is incapacitated while two continue. NOLS courses generally have enough people available for a four-person messenger/evacuation team. The choice of a smaller group may be appropriate in some situations, however, careful thought should be given to the safety, the example, and the opportunity for student participation of in this decision. An instructor should lead the group, if possible. Always have a timetable and plan for returning the runner party to the field.

AT THE ROADHEAD:

- Call the location
- Stay with the evacuee until they are turned over to NOLS or authorized personnel.
- Send the completed Field Evacuation Report form and further documentation, in a sealed envelope, with the evacuee.
- All vehicles used during evacuations must be NOLS owned or authorized. Instructors may have to hitchhike to report an evacuation, but avoid, if possible, hitchhiking with an evacuee.
- Likely you'll use a local resident's land line phone or your personal cell phone to contact NOLS
- If you have any expenses, save your receipts in order to be reimbursed.

ADDITIONAL TOPICS FOR COMMUNICATING WITH THE BRANCH.

- Branch specific telephone numbers would follow here.
- Some headquarters staff home and office numbers such as operations director or risk management director would be included.
- Specific instructions for the type of electronic communication device(s) used at the branch would be included.

STANDARD NOLS HELICOPTER INSTRUCTIONS

Helicopter services will request the following information:

- a. Number of patients.
- b. Patient's weight, medical status, and ability to sit up/need to lie down.
- c. Current weather conditions at the landing zone (cloud ceiling, precipitation, wind direction, temperature, etc.).
- d. Latitude and longitude and altitude of the landing zone.
- e. Instructor's name and satellite phone number, many helicopter pilots carry satellite phones. If you have a 2-way radio provide the frequency, call sign / #.
- f. Geographical description of landing zone and distance from observable landmarks.
 - Use an aimed reflecting surface, such as a signal mirror or compass. Reflected light can be easily visible to pilots.
 - Maintain visual contact until the helicopter has landed.
 - Mark your location with tightly anchored, brightly colored markings. Yellow, red, blue and orange are good signal colors, especially if they are day-glo. Dull colors are not very useful.
 - **Failure to anchor and secure objects in the landing zone can result in catastrophic results, i.e. objects get sucked into rotors and cause mechanical failure of the aircraft.**
 - Background contrast is important. Use your signal mirror or reflective device (i.e., compass).

NOLS GENERAL EVACUATION PROCEDURES

The pilot may choose their own landing site. Be prepared to move the victim to the helicopter after the pilot lands. Landing zones that are 60-foot diameter are best. Think about a football-field-sized space. Avoid LZs near the tops of ridges, which can create tricky winds for the pilot. Clear away loose objects from the landing zone. Other option might include a military aircraft with hoist capabilities or a SAR team trained in short haul evacuations.

Numbers of people on the landing zone will confuse the pilot. One person on the ground should use proper ground-to-air signals. The most important is "land here, my back is into the wind." In most cases, the pilot will shut down the helicopter while the patient is assessed, packaged and loaded. The evacuee's equipment may be a low-priority cargo.

Helicopters may not be able to fly. Helicopters can be grounded by high winds, low visibility, precipitation, and low temperatures and high humidity (rotor blades can ice up). Always have an alternate plan, and inform NOLS accordingly.

Avoid becoming another evacuee:

- Approach a helicopter only when the pilot motions you to do so. Stand or approach where the pilot can see you.
- Do not walk in front of a helicopter or approach it from uphill. Never walk around the rear of the helicopter.
- Be careful on snow, not to slide toward the helicopter accidentally.
- Stay low whenever you are around the rotors.
- Control people on the landing zone.

ADDITIONAL INFORMATION TO BE INCLUDED IN THIS DOCUMENT MAY BE:

Cancellation policies

Hospital location and contact information

Law enforcement agency contact information

Program specific information

Transportation schedules

Rerotation schedules

Road head location descriptions

Rerotation location descriptions

Other specific information relative to the program area.

EXPEDITION RISK MANAGEMENT AT NOLS



BACKGROUND

NOLS was founded in 1965. From its start as a summer outdoor program located in Lander, Wyoming, NOLS is now a year-round wilderness and leadership school that operates globally. We have expedition operations based in Wyoming, Utah, Alaska, Arizona, Washington, Idaho, New York, Mexico, Chile, British Columbia Canada, New Zealand, Tanzania, and India. On average, close to 4,000 students enroll each year on extended wilderness expedition courses, totaling over 100,000 annual field program days.

The NOLS mission is to be the leading source and teacher of wilderness skills and leadership that serve people and the environment. Since our inception the NOLS educational goals have been to learn and practice judgment, leadership, and wilderness skills.

In addition to offering expedition courses, NOLS offers wilderness medicine training and certification around the globe. This document describes risk management for expedition courses.

NOLS RISK MANAGEMENT MISSION STATEMENT

NOLS promotes the health and well-being of students and staff as one of our highest priorities and strives to be the leading source and teacher of risk management practices in wilderness education.

RISK MANAGEMENT GOALS

1. To prevent fatalities, disabling or disfiguring injuries and serious illness.
2. To reduce all injuries and illnesses.
3. To anticipate emergency response and crisis management needs and design suitable protocols and plans.
4. To identify the accepted NOLS field practices for managing life threatening risks and the expectations for their consistent use.
5. To be a leader and resource of wilderness risk management practices.

Risk is a component of wilderness travel and risk management is a core element of a NOLS education, our curriculum, and how we teach and conduct our courses. This gives our education relevancy and practicality. Risk management at NOLS is based on the philosophy laid down by our founder, Paul Petzoldt, that risk is inherent in the remote locations through which we travel and our approach to risk is one of respect gained through knowledge, skill, experience, and expertise. We value critical thinking, reflection on experiences, and resiliency in difficult times. We have a strong commitment to our students, and we continually seek to enhance our systems of risk management.

The Risk Management program at NOLS is organized into the following categories.

1. Risk Management Oversight
2. NOLS Core Curriculum
3. Instructor Training
4. Administrative Processes
5. Field Support Services

RISK MANAGEMENT DEFINITION

- a. Risk Management at NOLS supports educational experiences by integrating all aspects of the organization to promote the health and well-being of students and staff.
- b. NOLS expedition risk management is the process of understanding and anticipating the risks of leading groups in remote wilderness environments and applying appropriate responses to reduce the likelihood of an injury, illness, fatality, or close call (aka near miss).

RISK MANAGEMENT OVERSIGHT

THE NOLS RISK MANAGEMENT COMMITTEE

The NOLS risk management committee is comprised of representatives from the NOLS board of trustees, special advisors, and the risk management director. The committee monitors the NOLS risk management program and performance and assists in formulating risk management goals and strategies. The committee meets three times per year.

PRESIDENT AND EXECUTIVE TEAM

The president of NOLS is an ex-officio member of the risk management committee. The president consults regularly with the risk management director. The president and the executive team establishes risk management as an institutional priority.

RISK MANAGEMENT DIRECTOR

The risk management director provides oversight and guidance of field risk management at the school-wide level. The risk management director monitors and investigates injury, illness and near miss incidents, manages the NOLS risk management incident database, establishes risk management policy, maintains the NOLS Accepted Field Practices, collaborates with each campus, the education and operations departments, and reviews marketing materials for accurate description and disclosure of risks inherent to NOLS courses. The risk management director consults with loss control experts, physicians, attorneys, other outdoor education professionals, and NOLS field instructors for insight into ways to improve risk management for all NOLS operations.

FIELD STAFFING OFFICE

This department selects and hires individuals to fill field instructor positions. Personnel in the field staffing office monitor field instructor performance, compliance with required certifications, and career and skill development. Field instructors are selected for positions based on experience, qualifications, competency, and interest.

CAMPUS PROGRAM TEAMS

Each NOLS campus has a program team consisting of the program director, program manager, and program supervisors who work with the risk management director. This team is responsible for risk management at the field level at their campus. The program team addresses risk management topics with field instructors during pre-course briefings and post course debriefings. The program team formulates specific risk management emphasis for courses and seasons. The program team inputs field risk incidents into the database, manages field report paperwork, monitors risk management concerns from field instructors, designs and implements emergency procedures specific to the campus, and provides input and review to the NOLS Accepted Field Practices. The program teams are critical to the evaluation process of instructor performance and make recommendations for promotion.

FIELD INSTRUCTORS

COURSE LEADER POSITION

Course leaders are experienced field instructors that have supervisory responsibility for a course while it is in the field. Staff are promoted to this position in an orderly advancement, having demonstrated requisite levels of skill, judgment, risk management knowledge, program expertise, and NOLS experience.

PATROL LEADER AND INSTRUCTOR POSITIONS

Field instructors in these positions directly influence the health and welfare of students in the field through their training, leadership, expertise, and experience.

STUDENTS

Students have important responsibilities for risk management in the field.

- Students are expected to read the information on the NOLS website about the course they are interested in and the [expedition policies page of the NOLS website](#) to determine if they meet the general requirements of a NOLS course and understand the rigors, risks, and remoteness of the particular course.
- Students and/or parents or guardians read and sign the NOLS Student Agreement that describes the inherent and other risks of participating on a NOLS course.

- Students and their health care providers complete the health history form and honestly describe their physical and psychological health.

Prior to the course departing for the field, instructors conduct an orientation with students that addresses various aspects of the course including travel conditions, living conditions, course environment, student and instructor responsibilities, NOLS policies and the course goals and learning objectives. There is particular emphasis on students' responsibilities for risk management for themselves and the group.

This entire process is intended to alert and inform the student that risks do exist and that risk management is a priority on a NOLS course.

Once in the field, the student has responsibility for managing risk within their abilities and is expected, under the direct and indirect supervision of the instructors, to learn and practice leadership, judgment, decision-making, and use the risk management practices taught on the course.

NOLS LEARNING OBJECTIVES

These objectives define the core curriculum taught on every NOLS expedition course. Each course provides fundamental knowledge, skills, and experience essential for successful wilderness travel and enjoyment of a wilderness environment.

- **Risk Management:** NOLS teaches risk management by applying leadership and wilderness skills and facilitating experiences to develop judgment. Students learn hazard identification, risk assessment, practice decision-making, develop situational awareness, learn injury and illness prevention, first aid/wilderness medicine, and emergency procedures.
- **Leadership:** NOLS teaches leadership as “situationally appropriate action that directs or guides your group to set and achieve goals.” Leadership is learned and practiced by using independent student group travel, designated leader opportunities, and having students serve their team as a self-leader, peer leader, and active follower to create a collaborative team atmosphere, what we call positive expedition behavior.
- **Wilderness Skills:** NOLS teaches the expedition skills necessary to live and travel in the wilderness. This includes, campsite selection, shelter and stove use, fire-building, sanitation and waste disposal, cooking, nutrition, equipment care, keeping warm and dry, route-finding/navigation, and the skills of the particular course such as backpacking, kayaking, horse packing, sailing, fishing, skiing, snowboarding, caving, or climbing.
- **Environmental Studies:** NOLS connects students to wild places. Students learn Leave No Trace camping, wilderness ethics, about ecosystems, flora and fauna identification, geology, weather, astronomy, land management strategies, cultural issues, and public service.

FIELD INSTRUCTOR TRAINING AND DEVELOPMENT

THE NOLS INSTRUCTOR COURSE

The NOLS Instructor Course, with curricula for mountain, river, sea kayak, and sailing programs, is required for all field instructors. There is a rigorous application and review process to be selected for the instructor course. The curriculum of the instructor course covers the NOLS core curriculum, and students are observed and evaluated on their teaching and leadership abilities, their wilderness living and travel skills, and their hazard identification and risk assessment skills.

NOLS FIELD INSTRUCTOR SKILLS

These skills are listed in the Field Instructor Skills documents that describe NOLS' expectations and lists specific skills and qualifications for field instructors to work specific course types and to advance in their positions. Supervisors of field instructors refer to these documents when recommending promotion or advancement.

INSTRUCTOR TRAINING AND DEVELOPMENT

NOLS believes a key component to risk management is the continued development of a professional, experienced, and skilled instructor body. To this end NOLS offers and financially supports a variety of opportunities to further instructor development.

- **Field Instructor Levels of Responsibility:** There are three levels of field instructors; instructor, patrol leader and course leader. The instructor position is considered entry level. After demonstrating competence in skills, judgment, and risk management in their position (under the supervision of a course leader) the instructor can be promoted to the next level. Course leader is the highest level.
- **Technical Skill Development Seminars:** NOLS has extensive in-house training programs in wilderness skills such as avalanche awareness and forecasting, winter camping and travel, wilderness first responder, rock climbing, mountaineering, caving, glacier travel, natural history, horse packing, canyoneering, sailing, rafting, canoeing, and sea and whitewater kayaking.
- **Leadership Skill Development Seminars:** NOLS provides in-house training in leadership, communication, group/expedition dynamics, educational techniques, ethical and legal issues, safe learning environments, and diversity and inclusion skills.
- **Instructor Development Funds:** NOLS offers funding to field instructors for personal expeditions or to attend non-NOLS seminars and conferences. Through this funding it is expected that faculty will gain additional knowledge and experience in wilderness travel settings and technical situations, further develop judgment, gain greater experience and decision-making skills, and challenge personal abilities.

WILDERNESS MEDICINE REQUIREMENTS

Each NOLS field instructor must hold, at a minimum, a wilderness first responder (WFR) certification and current CPR certification.

The NOLS Wilderness Medicine department provides training for field instructors and the general public. The books, *NOLS Wilderness Medicine* and *The NOLS Wilderness Medicine Field Guide* written by NOLS Wilderness Medicine Curriculum Director Tod Schimelpfenig are used as field texts and first aid resources on NOLS courses.

NOLS maintains wilderness medical protocols that are co-authored by the NOLS medical advisor, NOLS Wilderness Medicine Education Director, and NOLS Risk Management Director. These protocols provide medical direction for field instructors if they face specific medical emergencies while in the wilderness.

ADMINISTRATIVE PROCESSES

ADMISSIONS

The admissions department is often a student's first experience with the NOLS risk management program. Our pre-course information strives to accurately describe the format, curriculum, and risks associated with our courses. Admissions staff answer questions and help prospective students select courses that best fit their desires.

HEALTH REVIEW

The admission staff review the applicant's registration forms including the health form. The purpose of health form and its review is to gather information to determine if the applicant is physically and mentally capable of participating on a remote wilderness expedition course. The NOLS medical review specialist may seek additional information from students with pre-existing conditions and consult with the applicant's health care provider, the risk management director, or the NOLS medical advisor.

RISK MANAGEMENT AUDITS

NOLS audits its risk management performance on a regular basis through the use of post course debriefings, written evaluations by students and instructors, through the risk management incident reporting process, and through internal audits of risk management systems at each campus conducted by school leadership. NOLS also periodically enlists outside expertise to perform risk management audits on specific field programs.

ACCREDITATION

NOLS is accredited by the Association for Experiential Education, AdventureMark New Zealand, and the Gap Year Association. The process for accreditation requires NOLS to periodically perform an extensive self-assessment and external review of systems, policies, and procedures that are measured against standards set for adventure programming.

These accreditations are renewed on an established schedule.

RISK MANAGEMENT INCIDENT REVIEW PROCESS

The risk management incident database and incident review process are used to analyze and understand field injuries, illnesses, and near miss incidents to learn from these experiences and inform and, if necessary, revise our field risk management practices.

EVALUATIONS

Evaluations examining all aspects of each course are routine at NOLS. We constantly work on improving this process. Performance evaluations of field instructors and students include the areas of risk management and leadership. Students complete a Course Quality Survey and each instructor team evaluates their course and the operational support systems. The risk management director writes an annual risk management report.

COURSE PAPERWORK

The instructors on each course are required to keep a course log that includes daily weather conditions, activities, names of student leaders, and any student challenges along with action taken. A class checklist is used to record the date a particular class was taught and by whom it was taught. Camp location information is recorded. Field injury, illness, and near miss reports and evacuation reports are used to record risk management incidents.

FIELD SUPPORT SERVICES

Robust field support services—equipment, rations, transportation, and emergency management systems—are essential to support our mission, manage risk, and achieve our educational goals.

EQUIPMENT

NOLS maintains a complete inventory of course equipment, and each student goes into the field well equipped. NOLS equipment is selected and/or designed to hold up under rugged conditions, setting a standard for functional expedition equipment. Students may bring their own equipment; however, it must meet NOLS standards.

RATIONS

Eating well is necessary to function at an optimal level in a wilderness setting and in the variety of conditions encountered on a course; adequate nutrition allows one to stay warm, be comfortable, and stay healthy. NOLS provides appropriate amounts and varieties of nutritious, high-energy foods and teaches students in the skill and science of maintaining nutrition on extended expeditions.

TRANSPORTATION

NOLS operates its own fleet of vans, pick-up trucks, busses and utility trailers to transport students and equipment to and from course areas. Vehicles are selected for their durability and are maintained regularly either by trained NOLS staff or reputable service centers. NOLS has a comprehensive transportation policy, which includes licensing requirements, vehicle maintenance procedures, and operating policies. All staff members who drive vehicles with NOLS students must have completed a defensive driving course and have been familiar with the particular vehicle they drive.

EMERGENCY SUPPORT AND MANAGEMENT

Should a student become injured or sick during a course NOLS has developed an efficient and well-organized emergency response system to provide first aid and, if necessary, evacuate the student to medical care. However, the remoteness of our course areas can complicate emergency response. It is not uncommon to be 24 hours or more from advanced medical care. Weather and other variables can also hinder evacuation response resulting in delays in reaching medical care. Each course carries one or more communication devices for emergency notification. The most common devices are satellite phones and personal locator beacons (PLBs). Some courses also carry two-way radios and/or cell phones. These devices work well, but are subject to limitations due to the topography, atmospheric conditions, and technical limitations so they are not 100% reliable. Rapid evacuation from remote locations cannot be guaranteed.

- Field instructors prepare a written field evacuation report to detail their evacuation plan including contingencies and back-up plans.
- There are NOLS staff on duty 24 hours a day and are ready to receive emergency calls at all NOLS locations. NOLS

has access to extensive evacuation resources both internally and through other agencies and can arrange evacuations.

- NOLS can respond to the student’s needs once they are out of the field including phone calls to parents/guardians/family members and supporting access to medical care.

LEADERSHIP IN RISK MANAGEMENT

A risk management goal is to be a leader and resource of wilderness risk management practices.

NOLS offers risk management training courses for program administrators and offers consulting and specialized training for organizations.

In 1994, in collaboration with other outdoor education organizations, NOLS was instrumental in creating the annual Wilderness Risk Management Conference (WRMC) to promote a collaborative exchange of risk management practices and ideas among wilderness, adventure, and outdoor education professionals. NOLS is the lead sponsor of the conference, which attracts over 500 attendees each year.

NOLS staff frequently speak at other conferences on risk management and wilderness medicine.

Data from the NOLS risk management incident database is periodically analyzed and published in peer reviewed journals to contribute to the fields of wilderness medicine and wilderness risk management.

NOLS RISK MANAGEMENT STATISTICS

The NOLS risk management incident database was started in September 1984 and contains records of injuries, illnesses and other related incidents that occur on courses. This database provides a valuable tool for analyzing the effectiveness of our risk management systems and procedures. The following table and graph is a summary of our recent risk management data.

NOLS INJURY AND ILLNESS STATISTICS

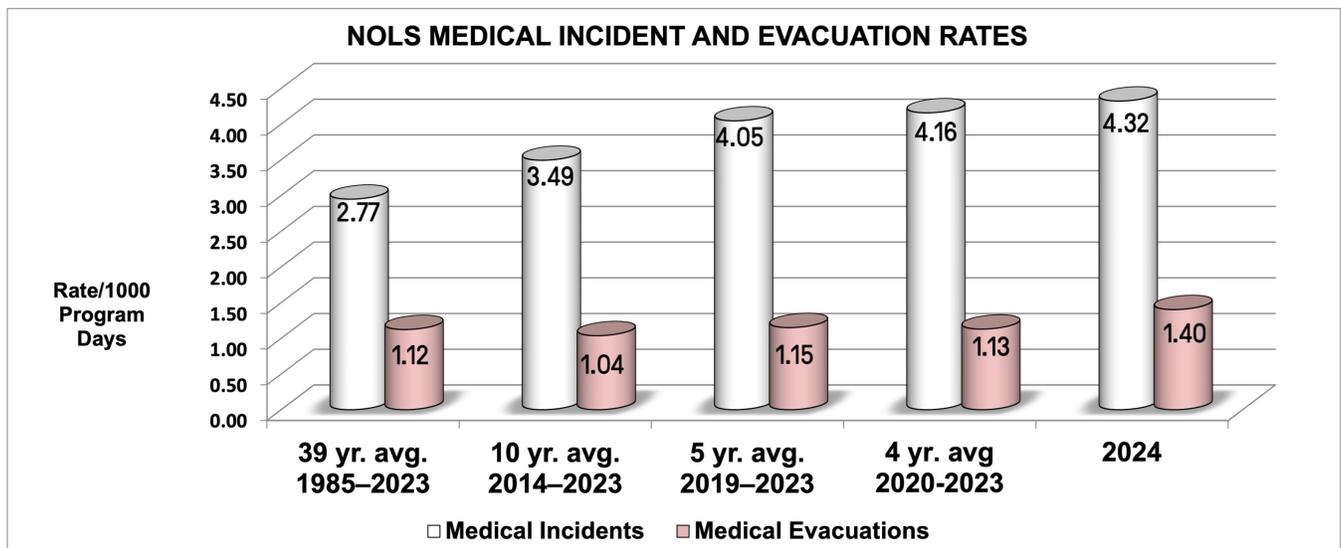
For period of fiscal years 2019–2024

INJURIES:	ILLNESSES:
• 5% of students are injured	• 8% of students become ill
• 35% of injured students are evacuated	• 28% of ill students are evacuated
• 37% of field medical incidents are injuries	• 63% of field medical incidents are illnesses
• 38% of injuries are sprains, strains, and tendon injuries	• 47% of illnesses are communicable, e.g., flu
• 43% of injuries are soft tissue injuries	
• 4% of injuries are fractures and dislocations	

We average 167 reportable injuries and 278 reportable illnesses per year. Most injuries are minor and include sprains and strains of knees and ankles and minor wounds and contusions. Most illnesses are gastrointestinal illnesses. It is rare for an injury or illness to be serious enough to require a night in the hospital.

On average 96% of students complete their course.

Roughly one third of people with injuries or illnesses are evacuated from the field. We track these evacuations and other events to gauge our risk management performance and to gain insight as to where we may need to focus our attention. The following chart displays our average evacuation rates.



FATALITIES AT NOLS

Since NOLS was founded in 1965, thirteen people have died on courses. No fatality is acceptable, but NOLS courses involve the pursuit of adventurous activities in rugged terrain in which there are real dangers. Wilderness adventure involves risk, which can become dangerous and potentially life-threatening due to the unpredictable forces of nature or an error in judgment.

NOLS FATALITY STATISTICS:

- Six fatalities, 136,182 students, and 5,271,059 program days¹, (September 1984 through August 2024).
- Fatality rate over 40 years per 1000 program days = 0.001
- Forty-year odds of a student dying on a NOLS course: 1:22,697.
- NOLS has had one fatal incident abroad.

For context the following statistics are from other sources.

Turner (2011)² American Public Health Association

- 254 deaths among 1,361,304 college students aged 18-24 at 4-year institutions.
- Odds of a student dying at college: 1:5,359
- 22.4 deaths per 100,000 college students on U.S. campuses.

The Forum on Education Abroad³

- 17.6 deaths per 100,000 college students studying abroad.

National Ski Area Association⁴

- Fatality rate winter 2020/2021 per 1000 skier/snowboarder days = 0.001
- There were 48 skier/snowboarder fatalities in the U.S. during the 2020/2021 season

LIST OF FATAL INCIDENTS AT NOLS:

1. July 1966: A student died in a mountaineering fall in the Wind River Mountains, Wyoming.
2. June 1971: A student died in an unroped crevasse fall on Denali, Alaska.
3. June 1972: A student drowned in a canoe incident on the Green River, Wyoming.
- 4-6. January 1974: One instructor and two students were killed in an avalanche in the Teton Range, Wyoming.

¹ Program day is 1 person on a course for 1 day, e.g. 10 students and 2 instructors on a 30-day course is 360 program days

² Turner, J. (2011) Leading Causes of Mortality Among American College Students at 4-Year Institutions. American Public Health Association, Annual Meeting, November 2011, Washington, D.C.

³ Comparing College Student Mortality Rates in the U.S. With Mortality Rates While Abroad, (2018). The Forum on Education Abroad, Carlisle, PA.

⁴ National Ski Areas Association Fact Sheet: Facts About Skiing/Snowboarding Safety, (2018), http://www.nsa.org/media/348423/Fatality_Fact_Sheet_2018.pdf viewed January 4, 2019

7. July 1979: A student was killed in an unroped fall in the North Cascade Mountains, Washington.
8. July 1989: A student was killed by rock fall in the Wind River Mountains, Wyoming.
9. December 1992: A student was killed by an avalanche in the Absaroka Mountains, Wyoming.
10. June 1996: A student was killed from a head injury during a river crossing in the Absaroka Mountains, Wyoming.
11. July 1999: A student presumably fell into a moulin and died on the Matanuska Glacier, Alaska.
12. September 2011: A student slipped and fell down a steep slope while backpacking in India.
13. August 2022: A student died from a lightning strike in the Absaroka Mountains, Wyoming.

The following published papers co-authored by NOLS staff are available on request.

Wilderness Medical Society Clinical Practice Guidelines on Anaphylaxis, F. Gaudi, Johnson, D, DiLorenzo, K, Anderson, A, Musi, M., Schimelpfenig, T, Leemon, D, Blair-Smith, C., Lemery, J., (2022) *Wilderness and Environmental Medicine* 33(1): 75–91

Trends in Skin and Soft Tissue-related Injuries in NOLS Wilderness Expeditions from 1984-2012, Stanford, K., Phillips, L., Chang, Y., Leemon, D., Schimelpfenig, T., Harris, S., (2017) *Wilderness and Environmental Medicine*, 28, 307-312.

Injuries Related to Hiking with a Pack During National Outdoor Leadership School Courses: A Risk Factor Analysis, Hamonko, M., McIntosh, S., Schimelpfenig, T., Leemon, D., (2011), *Wilderness and Environmental Medicine*, 22, 2-6

Ultraviolet Keratitis Among Mountaineers and Outdoor Recreationalists, McIntosh, S., Guercio, B., Tabin, G., Leemon, D., Schimelpfenig, T., (2011) *Wilderness and Environmental Medicine*, 22, 144-147

Medical Incident and Evacuations on Wilderness Expeditions, McIntosh, S., Leemon, D., Visitacion, J., Schimelpfenig, T., Fosnocht, D., (2007) *Wilderness and Environmental Medicine*, 18, 298-304.

CONCLUSION

There is a risk management consciousness that pervades NOLS and guides every step of the school’s operations. Risk management has always been, and will continue to be, a priority at NOLS. Nevertheless, no matter how many systems an organization employs, and no matter how stringently those systems are followed, incidents will happen. We cannot—nor can anyone—reduce that possibility to zero. We accept risk as an integral part of the learning process and of the environments through which we travel, but we do not seek risk for the sake of risk. Our wilderness classrooms have no handrails, emergency situations can be complex and take time to resolve, and students on our courses must accept the fact that risk of injury or death exists during wilderness travel and recreation in remote areas.