

Course Description

Yukon Outdoor Educator

- Backpacking & Whitewater Canoeing -

Features Of This Course:

- Hiking Route: 60-70 kilometers
- Expansive alpine tundra and remote wilderness settings
- Thick bushwhacking through willows and dwarf birch
- Safe bear camping techniques are followed
- River Section: approximately 10 days—river location is dependent on water levels.
- River curriculum includes basic Class I-III (depending on the specific river and water levels) paddling techniques, risk management and group management.
- Emphasis on teaching philosophy and techniques
- Predominantly off-trail hiking
- Group Size: 12-15 Students and 3 Instructors
- Nearly continuous daylight
- Minimum Age: 18
- Average Pack Weight: 60 lbs.
- Intensive and thorough curriculum targeted to teachers and outdoor leaders

The Expedition

This expedition begins with two weeks backpacking in the Pelly, Cassiar or Logan Mountains. The rugged mountains of the Yukon are more traveled by caribou and moose than by two-legged hikers. Typically your hiking route will begin with thick willows and head-high dwarf birch giving way to treed slopes that break open into alpine tundra and breath-taking views above tree line. Alpine wildflowers and patchy snow carpet the high tundra that forms this expedition's classroom.

You may run a self-sufficient course where you will hike from the mountain section of your course right to the banks of the river you will travel, where you'll trade backpacking gear for river equipment. Your instructors will begin with the basics of river travel—from packing canoes, to paddle strokes, to basic river rescue techniques and risk management on Class I-III water.

Note—depending on your course date, some educator expeditions begin with paddling, and then move into backpacking. Depending on logistics, some courses do the river/hike switch with a vehicle shuttle.

This course provides the experience and instruction to develop responsible, competent outdoor educators in the mountains and on intro-level rivers. Successful graduates are capable of leading complete novices in the backcountry. They can manage the inherent risks of mountain and river travel and effectively teach relevant skills. They are able to present appropriate information and attitudes using a variety of experiential techniques. The expedition format emphasizes hands-on learning and the application of skills that range from off-trail navigation to cooking. NOLS field staff help participants learn through personal experience whenever possible.

You'll work hard traveling over rocky, steep terrain with all of your gear on your back, or on long river days. Challenges will include crossing rivers on foot, portaging rapids, and keeping yourself and others warm and well fed in mountain storms. You'll also enjoy identifying plants and wildlife, climbing a peak and learning how to fly fish. The spectacular vistas of this mountain wilderness create an inspiring classroom. You'll learn the skills you need to travel competently in these and many other mountains.

Your course begins with the basics: cooking, camping, stove-use, map reading, and Leave No Trace techniques. Once you gain comfort and confidence, we'll move on to more advanced instruction on topics that range from first aid to expedition behavior.



Additionally, you'll be encouraged to observe and discuss different teaching styles and techniques. You should expect to teach a class or lead a discussion on a subject related to the course. The sharing of knowledge between fellow expedition members and participation as students and educators provides a forum for developing and discussing different teaching styles and techniques. We carry resource material on the expedition so that individuals can prepare presentations in the field. The opportunity for student lead discussions and classes will depend on such variables as group travel rate and weather. The intent is to help students round out their skills through daily practice and experience.

You'll live with two or three other students in a "cook" group during the course. These small groups help disperse the impact on the land and will enable you to master the art of backcountry cooking and living. You'll get lots of coaching from your instructors while you learn these new skills. Before you know it, you'll savor homemade pizza and cinnamon rolls—gourmet delicacies that you made from scratch on a single-burner stove.

Group dynamics and leadership are an integral part of our curriculum. You'll learn how to live and work closely with your course mates while you travel through the mountains. Bringing a tolerance for adversity and uncertainty, respect for other group members, and a willingness to work hard are critical to success. As your group gains leadership skills and experience working together, you can expect your instructors to give you more responsibility for leading yourself and your peers. You should expect ongoing verbal coaching and input throughout the course, with written performance summaries at the end. This feedback takes place whether or not one is receiving college credit.

Student Independence

On all NOLS courses students will be independent (unaccompanied by instructors) at various times. This will include time in and around camp such as while cooking or performing camp chores. Instructors may allow students to travel away from camp. Students often have independent unsupervised time, usually in town, before and after their course starts.

Independent Student Group Travel

An emphasis of this course is the development of skills that permit you to be self-sufficient in remote backcountry areas. Our teaching progression for accomplishing this is carefully planned and executed. Initially travel groups, usually of four to six students, will include an instructor who will teach travel skills and leadership. Gradually, as you gain proficiency, the instructor will allow you to take on more responsibility and make more of the decisions. When you have demonstrated the necessary competency to the instructors, you may travel in student-led groups without instructors for a day at a time as you hike from camp to camp. We call this daily independent student travel and it is an effective educational tool. It allows you to practice travel skills and leadership and gives you responsibility for the outcome while still having indirect supervision by instructors and the benefit of the NOLS support systems.

This course may culminate in a Student Expedition. After successful practice with daily independent student travel and if your instructors think your group is ready, the instructors will help you divide into student expedition groups (usually three to six students each). With instructor oversight, each group will then select a leader and carefully plan and execute a multi-day independent student-led expedition. This part of the course builds on the skills you've learned and practiced and allows you to travel without instructors for up to three days. Students are aware of where the instructors and the other student groups are planning to travel and camp. The instructors with emergency communication capability may be up to 24 hours away from the students. Our students often say the student expedition was the highlight of their course.

Note: Due to the length of the river section there may not be enough time to build the skills for a Student Expedition on the river.

Weather, Remoteness and Other Challenges

It is important to emphasize the nature of this wilderness experience. The following descriptions are intended to have you mentally and physically prepared to get the most out of your course.

Backpacking and canoeing in the Yukon Territory is physically and mentally demanding. The Yukon is a very remote region with large distances from medical facilities once in the field. While the Yukon Territory of Canada is fully functional with all the emergency services available to most North American centres, even in ideal conditions, an evacuation would take several hours. Add the likely element of poor weather, outside help might be several days away. Your expedition must be prepared to deal with almost any event self-sufficiently.



While average humidity and precipitation in this area are moderate, the weather can change quickly from hot sunshine to rain, sleet and hail, and from dead calm to fierce winds. In a wet year it could be rainy and cold every day. It is not uncommon for a hiking group to be soaked to the skin while bushwhacking! Light snow is always a possibility.

This is bear country (grizzly and black) and all travel and camping practices emphasize bear risk management and awareness. Some examples include making noise while traveling and never leaving food in tents. One basic bear country practice is to never leave camp on one's own. Students should not expect to have much time alone on this course.

Bushwhacking—forcing one's way bodily through thick brush—can occupy entire days and can be one of the most challenging aspects of the course. As water levels and rivers are dynamic, days may be spent paddling dozens of kilometers over many hours or taking the entire day to “portage” a kilometer around a rapid. Rewards of a NOLS course are proportionate to the challenge – If you are mentally prepared for this challenge and welcome it, you will receive more from your course.

There are plenty of insects in northern Canada, and we'll deal with them in good expeditionary style. Mosquitoes, black flies and no-see-ums are at their worst through early July, as they maximize their activity in the short summer.

Group Dynamics

For two weeks you'll be living and working in a small community of diverse individuals (be that age, outdoor experience, occupation, or other standard measures of diversity). Whether it's pushing through dwarf birch feet from one another, or camped in a confined campsite, living and working quarters are tight, necessitating the utmost in cooperation, patience and tolerance. Please consider the ramifications of this prior to committing to the expedition, and recognize that the success of the expedition as a whole is entirely dependent on the ability of its members to support one another in trying circumstances.

Some of the course routes may involve exploration into new areas. Consequently, a willingness to change plans and the desire to be challenged are both paramount.

Medical Issues

Please be aware that chronic knee or ankle ailments have been a source of problems in the past. If you have a history of such problems, please contact us to discuss it. It is important that the admissions office is advised of any updates to your medical records.

Medications

It is important that you have a current diphtheria-tetanus immunization. We need to know if you have had an adverse reaction to Erythromycin, Vicodin, Keflex, Ibuprofen, or Aspirin. If you plan to take any medication during the course, please be sure you are aware of possible side effects and discuss it with your expedition leaders.

Personal Electronics and Communication Devices

A key element to a NOLS education is time spent in wilderness. The benefits of this include being closer to nature, time away from society and civilization, and being in an environment where natural forces predominate and students have the opportunity to develop good judgment and practice self-reliance. For this reason, students are not permitted to take personal music players (iPods, MP3 players, CD players, etc.), cell phones, satellite phones or other communication devices, including satellite/GPS trackers on NOLS courses. Instructors will be carrying satellite phones, which are used solely to handle any emergencies that may arise.

Fitness Recommendations

Past students and instructors agree that arriving physically fit and with an open mind will enhance your experience and ability to do well on the course. Almost continual sunlight provides for long, busy days. Your fitness goals should focus on being able to sustain a moderate level of exertion for hours on end rather than “quick sprint” fitness. A healthy fitness level also reduces the chance of injury.

Focus on a well-rounded routine that emphasizes stamina, flexibility and strength. Finally, don't ignore the need for balance; this will serve you well in the mountains and rivers where the ability to quickly find your center of balance as you move from one step to the next will enable you to dance, rather than stumble your way through. Play with it. Good luck, and have fun!



General Fitness Guidelines

Phil Watts, exercise physiologist at Northern Michigan University, conducted a research project in conjunction with several NOLS mountaineering courses in the North Cascades. The results of this study, in consideration of established principles of physical conditioning, have enabled development of the following general guidelines which should be helpful in evaluating and improving your physical condition if necessary.

Aerobic (or endurance) capacity is a major factor in mountain and river travel and most course activities. An individual should have an aerobic capacity which would enable him/her to **run 5-6 miles (8-10kms) in 40-55 minutes** or less three times a week

If you recognize a need for additional aerobic conditioning, begin at least 8-10 weeks prior to the start of the expedition and adhere to the following **F.I.T.T.** principle:

- **Frequency**
 - Exercise 3-5 times per week.
- **Intensity**
 - Exercise at about 60-80% of maximum effort. Use the “talk test;” if you are breathing so hard that you can’t converse with a partner, you’re working too hard - slow down a little.
- **Time**
 - Exercise sessions should involve an expenditure of about 300-600 calories per session. That’s approximately the equivalent of:
 - 3-6 miles of jogging;
 - 10-25 miles of bicycling over rolling terrain;
 - 20-60 minutes of other aerobic activities such as cross-country skiing, swimming, etc.
- **Type** - The activity selected should be “total-body” - involving the large muscle groups - and should be rhythmical and continuous; it should not be conducted in spurts like sprints and many team sports.

Most efficient gains will result from using training activities that are “specific” - that is, like the activity for which you are training. Since Backpacking is primarily a lower body activity, running and cycling are perhaps of more benefit than swimming, for example. For the river, going out paddling or exercising on a rowing machine might be beneficial. Progress gradually to avoid over-stress and injuries. Work on Time (duration) first, and then begin to increase Intensity.

Flexibility (range of motion) exercise is also important and should involve stretching for all muscle groups. Select a number of stretches for all areas of the body. Stretch “easy” - don’t bounce or over stretch. Maintain each stretch for 10-20 seconds and don’t hold your breath or strain. You should feel tension not pain. Stretching should be done before and after each exercise session.

Developing adequate upper body muscular fitness for your expedition is beneficial and relatively simple. Select a number of basic exercises for the upper body and abdominal areas such as push-ups, pull-ups, rope climbing, sit-ups, etc. Perform as many repetitions of each exercise as you can, resting between each exercise, then repeat. Do this basic workout three times per week or on alternate days. If you prefer working out with weights, follow the directions for the equipment you will be using or consult a reputable physical fitness text. Use strength training to supplement your aerobic program, not as a substitute for it.

While everyone has a certain amount of energy stored in the body as fat, excess body fat will increase the work intensity of all wilderness activities promoting early fatigue. Assessment of relative body fat usually requires one of several laboratory procedures and may not be available to many individuals. If you think you are significantly overweight, consult your physician about this well in advance of your course. Crash dieting would be a poor method of losing weight before your course. A good program of aerobic exercise, as described above and improved nutritional habits will usually suffice. We recommend any smokers quit immediately.



Identifying and managing backcountry hazards—falling rock, rapids and strainers, weather, animals, moving water and steep terrain—will be a constant theme in our instruction. Managing risks and assuming responsibility for yourself and your colleagues will help make your expedition in these wild and beautiful mountains healthy and fun.

This course will not teach roped climbing nor ice-axe use. Courses often have the opportunity to learn spin and fly-fishing on quality equipment. The amount of fishing will depend on the route and participant interest. A fishing license is required, this can be obtained at the start of your course.

This expedition is designed for both practicing and potential outdoor educators. The diversity of programs within the field of outdoor education combined with the different experience levels of individuals on these courses provide both challenges and opportunities for each group. This diversity enables members of the expedition to take on a variety of student and teacher roles and provides for a broad base of stories, ideas and perspectives.

If you have questions, please contact the NOLS admissions office, 284 Lincoln St., Lander, Wyoming 82520, or call 800-710-NOLS.

Course Objectives

Each course is unique in that variables such as route, group dynamics, fitness levels and environmental conditions are factors. Working with these variables, it is our intent to accomplish the following:

Risk Management and Judgment

NOLS prepares graduates to teach and practice responsible habits that promote the health and well being of self and others. Objectives include the ability to:

- Demonstrate knowledge of hazards in a Yukon tundra mountain environment
- Consistently perform specific techniques to reduce or avoid hazards
- Describe emergency plans for a group in the outdoors in a variety of settings and circumstances
- Understand and support appropriate risk management policies and procedures
- Display sound judgment and an awareness of group and self limits

Leadership and Teamwork

Students are exposed to the theory and practice of outdoor leadership, teamwork and expedition behavior. Expedition behavior involves commitment to the group, a positive attitude and cooperation to achieve goals. Objectives include the ability to:

- Work effectively as a team member
- Effectively communicate ideas and concerns on an individual and group level
- Identify strengths and areas for growth in outdoor leadership styles in self and others
- Use abilities and initiative in a teaching/leadership role with peers
- Demonstrate effective problem-solving skills
- Provide effective oral and written feedback

Outdoor Skills

Students are expected to live, travel and educate others in the outdoors within a framework of health and care for the environment. Objectives include the ability to:

- Live comfortably in a wilderness environment, be able to camp, cook and dress for a variety of conditions
- Travel competently in wilderness terrain using off-trail navigation, hazard evaluation, and river-crossing techniques
- Employ sound bear camping techniques
- Accurately assess skills, strengths and endurance in self and others and conservatively apply those limits to given situations



Environmental Studies

At NOLS, environmental studies encompasses natural sciences, ecological principles, environmental ethics, Leave No Trace camping, land management and cultural issues. Each student is expected to:

- Show an understanding, appreciation, and respect for the natural world; know characteristic flora and fauna of the Yukon; understand significant ecological principles
- Develop a sense of place and relationship to the land, recognition of the inherent value in wilderness and sense of responsibility to protect the environment
- Consistently perform sound *Leave No Trace* living and travel skills; be able to extrapolate knowledge to new environments
- Demonstrate a knowledge of public land management and discuss means to be involved in issues of interest in the North and elsewhere
- Demonstrate awareness and understanding of the Yukon's current and historic local cultures

Wilderness Education Skills

This course helps students to develop as wilderness educators and leaders. Objectives include the ability to:

- Consistently role model basic outdoor living skills
- Understand how environmental factors influence learning situations
- Demonstrate self-direction in the pursuit of learning opportunities
- Teach a class or make a presentation to the group
- Reflect on personal teaching style and philosophy through critique and discussion
- Teach others when opportunity arises on the course

Outdoor and Canoeing Skills

At NOLS, our students learn to live and travel in the wilderness within a framework of personal health and care for the environment. Objectives include the ability to:

- Dress appropriately for a variety of conditions; be punctual and organized
- Cook nutritious meals using a camp stove or fire; participate fully and effectively in the group kitchen
- Demonstrate appropriate campsite selection and shelter set-up
- Develop basic natural history observation and interpretive skills; identify characteristic flora and fauna
- Understand the design, use, outfitting and care of canoes and related equipment
- Demonstrate effective canoe paddling techniques on flat and Class I and II water
- Demonstrate appropriate techniques for lining and portaging canoes
- Demonstrate basic rescue skills: self rescue, throw lines, canoe-flip recovery, and swimmer rescue
- Demonstrate the ability to organize and securely load a canoe for extended river travel

Suggested Books and Websites

Lopez, Barry. *Of Wolves and Men*. New York, NY: Charles Scribner's Sons, 1978.

Lopez, Barry. *Arctic Dreams*. New York, NY: Scribner's, 1986.

Wright, Allen. *Prelude to Bonanza: The discovery and exploration of the Yukon*. Whitehorse, YT: Arctic Star Printing, 1980.

McClellan, Catherine. *Part of the Land, Part of the Water*. Vancouver, British Columbia: Douglas & McIntyre Ltd, 1987. ISBN #0-88894-553-1

Pielou, E.C. *A Naturalist's Guide to the Arctic*. Chicago, IL: University of Chicago Press, 1994.

Leopold, Aldo. *Sand County Almanac*. New York, NY: Oxford University Press, 1966

<http://www.canoe.ca/che-mun/home.html> (canoe resource)

<http://www.emr.gov.yk.ca/oilandgas/info/mapsdata.html> (oil/gas)

<http://www.mnh.si.edu/arctic/index.html> (Smithsonian Institute Arctic Studies Center)

<http://www.cyfn.ca/> (council for Yukon First Nations)

<http://www.cnie.org/NAE/arctic.html> (Native Americans and the arctic)

http://arctic.unep.net/index.cfm?issue=arctic_all (the UNEP arctic page)

<http://www.mb.ec.gc.ca/nature/index.en.html> (Environment Canada page)

<http://www.cnf.ca/links.html> (Nature Canada)

<http://www.canoemuseum.net/> (all about canoes)

<http://www.emr.gov.yk.ca/> (Yukon .gov website)

<http://taiga.net> (northern Canada natural history)

