

Course Description

Semester In The Yukon

Features Of This Course

- Length: 76 days
- Whitewater canoeing Class I-III water
- Off-trail hiking and mountain travel
- Hiking and mountaineering in Canada's Yukon Territory and British Columbia
- Abundant wildlife
- Major river crossings
- Opportunities for snow and ice climbing, ice axe skills, and roped glacier travel
- Peak ascents
- Fly and spin fishing
- Packs often weigh 60 lbs. or more
- Minimum age: 17
- Average age: 22
- Ave. group size: 15 students / 3 instructors
- Potential for combining sections without returning to the NOLS base or road for a "mega wilderness section"

The Expedition

This action-packed, semester-long learning adventure probes untrammelled river and mountain routes in Canada's Yukon Territory and is one of NOLS' most intriguing wilderness leadership semesters—it dances along the Canada and U.S. border in some of the most remote wilderness left in North America.

For 76 days your expedition will explore the wilds of the Yukon's vast mountains and rushing rivers while mastering basic skills such as cooking, map reading, plant identification, camping, and bear risk management. As three months under the midnight sun progresses you'll learn advanced topics like leadership, expedition behavior, land management, history and technical mountaineering/glacier travel.

You'll work hard and play hard too. The friends you'll make, the skills you'll learn and the places you'll see will be with you long after the end of your course. The southern border of the Yukon Territory is the 60th parallel. There are 30,000 people living in all of the Yukon and the majority of the territory is accessible only by plane, foot or river travel.

You'll be living with two or three other students in a "cook" group during the course. These small groups help disperse your impacts on the land and 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 be savoring homemade pizza and cinnamon rolls—gourmet delicacies that you made from scratch on a single-burner stove.

You will also travel in small groups, usually of four to six. Initially, these groups include an instructor, but later—once you know the intricacies of map reading, route finding, and hazard evaluation—the group may travel on its own. NOLS courses are designed for you to learn through experience. Your instructors are there to train, supervise and provide feedback and advice, but ultimately, what you learn depends upon you.

The semester is comprised of three sections including flat and whitewater canoeing, mountain backpacking and finally technical mountaineering. The order in which these sections take place may vary. The field portion of each section ends with written and verbal course evaluations. Peer and self-evaluations are likely to be part of this process.

Because of the vagaries of weather, logistics and group strength, the routes and even the mountain ranges where you travel may change.



Backpacking

Your semester begins with about three weeks of backpacking to learn the basics of navigation, backcountry travel, camping, and group dynamics. The Selwyn Mountains (north and east of Whitehorse) will be your home as you hike and experience a truly wild place. You'll learn backpacking and travel skills while traversing the river valleys, alpine tundra, high passes, and thick forest of one of the Yukon's remote and rugged regions. We'll constantly build on the skills you've learned and challenge you with new techniques and bold adventures. Bushwhacking—forcing one's body through thick, often head-high brush—in tangled willows, fording swollen rivers, crossing steep slopes and dealing with all kinds of weather will all be part of your first days in the Yukon bush. Mosquitoes are constant companions. You'll work in teams negotiating the terrain, learning the moods of mountain weather, mastering backcountry cuisine and learning with, and from, your tent mates

This section of your semester-long expedition emphasizes skills that permit students to be self-sufficient in remote backcountry areas. Leadership and judgment are stressed throughout. Hiking days vary from easy to strenuous and will be broken up with an occasional layover day that allows time for formal and casual classes, baking, fly and spin fishing, repairs, reflection and exploratory group hikes.

Mountaineering

After polishing your travel and leadership skills, you'll rendezvous in the backcountry with new instructors and equipment and begin the next section of your semester-long expedition. You will go straight into mountaineering without returning to town: your backpacking route leads you directly to your mountaineering playground along the borders of the Yukon, British Columbia and Alaska. We will transport all of your food and new equipment to you in the field. The common NOLS term for this type of transition is a "mega-section" and allows you to be fully immersed in the backcountry for up to 70 continuous days—a truly unique and powerful wilderness experience.

We've selected the Selwyn Mountains and Keele Peak or the Coast mountains for their rugged terrain and excellent learning opportunities. You'll start low in thick vegetation, climbing to open tundra and soon rock, ice and snow. You'll learn technical skills as you negotiate mountain passes, icefalls, and crevassed glaciers. First, a foundation will be developed: knots, rope handling, belaying, and use of the ice axe for self-belay and self-arrest. Then advanced techniques will be introduced, including glacier travel, crevasse rescue, snow and ice anchors, crampon use, hazard evaluation, and climbing techniques for snow, ice and rock. Prudent route selection and constant adherence to risk management practices help minimize exposure to the inherent dangers of crevasses, rock fall, avalanches and harsh weather.

Your route is planned so that the final 4-6 days will be off glacier in terrain suitable for a student expedition (see below).

Whitewater Canoeing

Whether it is in the middle or the final month of your expedition, you'll explore this wild and remote place in a tandem canoe on one of Yukon's majestic rivers. Regardless of which river your group travels, flat and whitewater fill your days as you twist through pristine wilderness miles from the nearest road. The whitewater will challenge and excite you as well as present opportunities for learning new skills. The quiet, flat-water sections serve as a time for reflection and allow you to appreciate your surroundings. You will work hard traveling down the river corridor and your rewards will be great. You will learn the skills you need to paddle wilderness rivers on your own.

NOLS canoe skills begin with the basics—flatwater paddling and progress up to Class III white water paddling techniques including basic hydrology, river rescue, lining and portage practice.

The river's progression dictates the flow and focus of the course. The headwaters are fast with closely interspersed rapids. The rivers widen and slow as they descend out of the mountains toward your final pick up and return to Whitehorse.

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. Away from the field, students often have independent unsupervised time, usually in town, before and after their course starts or between sections of semesters.



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 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 during the day as you go 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.

Your wilderness and/or canoe sections may culminate in a Student Expedition. If your instructors think your group is ready, you may be divided into Student Expedition groups (usually four* to eight students each). With instructor involvement, 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 three to six days. Students are aware of where the instructors and the other student groups are planning to travel and camp. The instructors may be up to 24 hours away from the students. Our students often say the Student Expedition was the highlight of their course.

*Because the Yukon is grizzly bear habitat, travel groups are usually no smaller than four people.

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.

Summer weather in the Far North is fickle. On any given day, temperatures may range from below freezing to sweltering. During your semester, you'll go from intense heat to biting cold. You'll learn to live comfortably in rainstorms and sunshine.

Travel in the mountains and on the rivers can be tough. Often you'll be bushwhacking through thick vegetation or scrambling over tricky terrain. Rivers can be hard or impossible to cross. You will traverse steep slopes of loose rock, snow or grass and grunt up high-mountain passes. Drizzle may be a constant companion. You'll paddle until your back aches. 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's nothing quite like taking your pack off at the top of a pass, feeling the wind dry the sweat off your back, and looking down at miles of uninhabited wilderness opening up before you. It's exhilarating.

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.

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.

When asked what was the most challenging part of their semester students often refer to individual personality dynamics and living with the same group of people for 76 days. When asked about the most rewarding aspect of the course, most participants talk about the strong friendships that developed, the opportunity to work as a team and to accomplish the goals of the group in unparalleled wilderness. Just as you need to be physically fit you also need to be mentally ready to take on the challenges. For some people, carrying a heavy backpack might be a challenge, while a 20 mile long day fighting a head wind with driving rain in a canoe is a piece of cake. There will be days when you will help to care for a sick tent mate and other days when you will need a hand to overcome some hurdles. A positive and bold attitude will help you and your group, take on the challenges, learn to the limit, connect with wilderness and have the best NOLS semester. Ever.

Yukon Semester Objectives

Each course is unique due to variables such as route, group dynamics, fitness levels and environmental conditions. Working with such variables, it is our intent to have each student accomplish the following:

Risk Management and Judgment

NOLS teaches the wilderness user to practice responsible habits that promote the health and well being of self and others. Each student is expected to:

- Demonstrate knowledge of the hazards in the varied environments in which the semester is conducted and be able to transfer/apply this experience to new environments
- Consistently perform specific techniques to reduce or avoid hazards
- Create and show the ability to implement emergency plans for groups in the outdoors
- Anticipate, prevent, evaluate and care for medical problems in wilderness settings
- Gain sufficient experience with equipment, the wilderness environment, expedition members' and one's own limits to develop the judgment and decision making skills necessary to be a capable expedition member and wilderness traveler



Leadership and Expedition Behavior

Students are exposed to leadership theories and expected to participate in appropriate leadership roles to gain practical experience. Each student is expected to:

- Consistently display effective teamwork
- Effectively communicate ideas and concerns on individual and group levels
- Accurately identify strengths, skills and areas for growth in developing outdoor leadership styles in self and others
- Take responsibility for learning by setting and attaining personal goals
- Show the capability of planning and carrying out responsible and environmentally sound expeditions
- Use abilities and initiative effectively in teaching/leadership roles with peers
- Respond to problem situations using decision making and planning skills
- Show supportive leadership qualities by actively supporting others in leadership roles and taking appropriate individual initiative
- Show the capacity to draw on various appropriate leadership styles

Expedition Behavior

Expedition behavior involves teamwork, commitment to the group, acceptance of others, and cooperation to balance the achievement of both individual and group goals. Each student is expected to:

- Maintain an attentive, involved and positive attitude towards group goals and undertakings
- Demonstrate maturity and insight through good communication skills
- Show a willingness to accept responsibilities
- Demonstrate the ability to take initiative in group activities and tasks
- Support others in their development and growth as the semester progresses

General Outdoor Skills

At NOLS, students learn to live and travel in the outdoors within a framework of personal well being and care of the environment. Each student is expected to:

- Live proficiently in all course environments—learning to camp, cook and dress for a variety of conditions with an awareness of minimum impact concerns
- Travel competently in the course terrain using off-trail navigation, hazard evaluation and terrain specific travel techniques
- Take responsibility for the care and organization of personal and group equipment
- Exhibit good personal hygiene in diverse settings and situations

Environmental Studies

An integral part of every semester course is to raise students' awareness of their influence on ecosystems and their relationship with the world and others. Each student is expected to:

- Consistently perform sound minimum-impact living and travel skills by following the Leave No Trace principles; be able to extrapolate this knowledge to new environments
- Develop basic natural history observation and interpretive skills in a variety of ecosystems
- Learn effective use of appropriate field references to facilitate self-teaching
- Understand the history of and consider potential solutions to pertinent environmental issues
- Learn and apply fundamentals of basic field natural history including geology, glaciology, ecology, ornithology, mammalogy, botany and meteorology
- Understand the functions and local concerns of state (provincial and territorial) and federal land management agencies
- Understand the roles and local concerns of competing interest groups (tourists, hunters, miners)
- Demonstrate a basic knowledge and respect for local and regional native cultures
- Facilitate the transference of wilderness ethics and practices into daily personal and professional life



Canoeing Skills

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

- Demonstrate an understanding of river features and the hazards of the whitewater environment, e.g., hydraulics, strainers, shallow water, submerged rocks, etc.; be able to "read" Class I, II and III whitewater
- Demonstrate an understanding of river risk management/rescue techniques
- Consistently perform appropriate techniques to reduce or avoid river hazards; perform rescue techniques
- Display an awareness of cold water and river-related injuries and their prevention
- Be able to perform basic first aid skills to support a patient until help arrives
- Demonstrate the ability to develop a contingency plan for a group in the outdoors
- Paddle safely, effectively, and responsibly as a member of a group on the river
- 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

Mountaineering Skills

Students learn a wide range of skills that allow them to negotiate technical terrain in a mountainous setting. Each student is expected to:

- Correctly tie fundamental climbing knots and display efficient rope handling techniques
- Demonstrate consistency with fourth and fifth class belays employing varied friction sources
- Demonstrate appropriate climbing techniques on rock, snow, and mixed terrain
- Demonstrate the ability to remain composed and thoughtful in difficult and exposed terrain
- Competently build simple top-rope and rappel anchors
- Safely and efficiently follow multi-pitch climbs and use a variety of descent techniques
- Effectively use the ice axe for snow travel and self-arrest

Suggested Books and Websites

Powers, Phil. *NOLS Wilderness Mountaineering*. PA: Stackpole, 1993.

Chouinard, Yvon. *Climbing Ice*. San Francisco, CA: Sierra Club, 1978.

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

Heider, John. *The Tao of Leadership*. New York, NY: Bantam Books, 1986.

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. ISBN# 0-226-66814-2

<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)

