

Course Description

Pacific Northwest Backpacking

Features Of This Course

- Hiking route: ~ 100 to 160 miles
- Elevations up to 7,000 feet
- Combination of on and off trail hiking
- Travel both above and below tree line
- Non-technical peak ascents
- Minimum age: 16
- Average age: 20
- Group size: 10 students/ 2 instructors

The Expedition

The time of the year will determine where your Pacific Northwest backpacking course takes place. Early summer courses traverse the Pasayten Wilderness. These courses either start or end in the North Cascades National Park. The Pasayten sits in the rain shadow of the North Cascades crest, which creates a drier climate more like the Rocky Mountains than the coastal rainforests of the Northwest. However, early season courses will still encounter rain or snow. Here you will travel through gently sloping stands of Lodgepole Pine that give way to high mountain lakes and open meadows as you gain altitude. Students traveling in the Pasayten may experience challenging off-trail travel on the way to more remote locations. The North Cascades National Park is often described as ‘America’s Alps’. Here you will have opportunities to travel in steep, densely forested terrain that leads to spectacular mountain vistas.

Later in the summer, courses may travel in Olympic National Park. The Olympics are one of the premier wilderness parks in the US, home to one of the richest old growth temperate rain forest reserves in the world. These courses traverse the park from east to west, finishing in the remote southwest corner. On a clear day, kicking steps up a steep snowfield in the Olympics, you can look west out over the dense rain forest and down to the distant Pacific Ocean. In exploring the pristine parts of the park we’ll experience particularly demanding, thickly vegetated, and steep off-trail hiking, during which it may take from several hours or a full day to travel a mile. Because of this challenging terrain, courses in the Olympics tend to have shorter routes overall than those in the Pasayten. Both areas offer excellent opportunities to observe wildlife such as deer, black bear, and mountain goat.

At first, hiking distances will be short to give you time to grow accustomed to your pack. To help ease the loads there will be two or three re-supplies of food and fuel by bush plane during the month. Later hiking days will average between four and eight miles. Instructors conduct formal and informal classes on a wide range of subjects, beginning with basic wilderness living skills such as cooking, tent pitching, stove use, and Leave No Trace practices. Later instruction includes map reading, first aid, leadership, plant and animal identification, fishing (route dependent), ecosystems, geology, weather, and environmental issues. It is not uncommon to have two or more classes a day.

You’ll be living with two or three other students in a “cook” group during the course. These small groups disperse the 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’ll also travel in small groups, usually of four to six. Initially, these groups will include an instructor, but later, once you gain more experience with map reading, route finding, and hazard evaluation, student groups often travel on their 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 the responsibility to learn lies with you.

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. A tolerance for adversity and uncertainty, willingness to work hard and the ability to maintain respect for other expedition members will be 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.



A typical day might begin at 6:00am. You will cook breakfast, break camp and pack, and then set off to hike the route you planned the night before. There are no typical hiking days but expect to begin the course with short distances until everyone becomes accustomed to the terrain and the heavy packs. Elevation gain is as important a factor as linear distance and a 3-mile hike over a steep pass can be just as taxing as an 8-mile stretch over level ground. During the hiking day you will take short breaks and aim to arrive at a new camp by mid-afternoon. Usually you will not stop for a long lunch but snack as you go. The evenings are structured to give you some personal time and time to cook dinner. There may also be a class, a group meeting, readings or games. You will find cooking becomes a major focus of the day and the “kitchen” area tends to be the place for chatting and socializing. On some days you will not move camp and instructors will arrange various activities such as peak ascents, fishing parties, classes and natural history walks; they will also give you some down time to rest from the hard hiking you did on previous days!

Weather and Other Challenges

Mountain weather is fickle. On any given day, temperatures may range from below freezing to T-shirt conditions. Courses may experience snow, rain, or long stretches of sun and blue skies. Whether the Pacific Ocean is experiencing an El Nino or El Nina condition can be cause for large swings in weather patterns in the Pacific Northwest.

Travel in the mountains can be tough. Often you’ll be off-trail bushwhacking through thick forests or scrambling across boulder fields. Early summer season courses may spend some of their time camping and traveling on snow. You will traverse steep slopes of snow, loose rock or grass, and grunt up high mountain passes, at times gaining 4,000 - 5,000 feet in a day. The heavy packs and steep terrain can be hard on your knees and feet if you are not used to this type of travel. You’ll be miles from the amenities of civilization. Telephones, ambulances, and hospitals may be several days away.

Identifying and managing mountain hazards—falling rock, weather, animals, moving water and steep terrain (risks that could result in injury or death)—will be a constant theme in our instruction. Camping may involve dealing with swarms of mosquitoes or hanging your food to keep it away from bears or other animals. Managing risks and assuming responsibility for yourself and your colleagues will help make your expedition in these wild and beautiful mountains healthy and fun.

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 four 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 four days. Students are aware of where the instructors and the other student groups are planning to travel and camp. Each Student Expedition group will carry an emergency communication device that will allow students to initiate an emergency response in the event of a serious emergency. In most cases students will have a personal locator beacon, but in some situations they will have a satellite phone, cell phone, radio or possibly another type of device. The instructors with a satellite phone, or additional 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.



Behavior on the Expedition

Each person's values, beliefs and actions affect those of the rest of the group -- balancing these is an important part of expedition behavior. We want you to have a positive and responsible learning environment. Therefore we expect all students to respect the values and beliefs of other members of the expedition. The best expedition members have positive attitudes, apply new skills and ideas at the first opportunity and come motivated to work hard with people they have just met. They care about others, place the welfare of the group equal to their own, and understand that an expedition succeeds when all its members complete each day successfully. To help ensure a healthy environment for all, we ask that people do not use tobacco products. Further, NOLS will not tolerate harassment or the use of drugs and alcohol on any course. If you feel your values or beliefs are not being respected, by NOLS' staff or students, it is essential that you speak up so the issues are addressed.

Personal Electronics

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. NOLS does not permit students to use personal cell or satellite phones or other communication devices including personal tracking devices (e.g. SPOT), while in the field. Additionally, students are not permitted to take personal music players (iPods, MP3 players, CD players, etc). Instructors will be carrying sufficient communication equipment (usually a satellite phone) to handle any emergencies that may arise.

Fitness Recommendations

You will have long, busy days on your expedition; your fitness goals should focus on your ability to sustain a moderate level of exertion for hours on end rather than "quick sprints."

Focus on a well-rounded routine that emphasizes stamina, endurance, flexibility and strength. Finally, don't ignore the need for balance; this will serve you well in moraine and boulder fields where the ability to quickly find your center of gravity 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 Guidelines

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

Aerobic (or endurance) capacity is a major factor in mountain travel and most course activities. An individual should have an aerobic capacity that would enable him/her to **run 1.5 miles in 11 minutes or less** to be well conditioned for extended mountaineering at moderate altitudes. Another useful assessment guideline is that an individual should be able to **run 5-6 miles 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; or 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 hiking is primarily a lower body activity, running and cycling are perhaps of more benefit than swimming, for



example. 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 can be 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 fat will increase the work intensity of all 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.

Course Objectives

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

Risk Management, Judgment and Decision-Making

NOLS teaches wilderness users to practice responsible habits that promote the health and well being of self and others. Objectives include the ability to:

- Demonstrate knowledge of the hazards in this mountain environment e.g. bears, river crossings, rock fall, weather
- Consistently perform appropriate techniques to reduce or avoid hazards
- Demonstrate first aid skills necessary to support a patient until help arrives
- Demonstrate the ability to develop an emergency contingency plan for a group in the outdoors
- Display sound judgment and an awareness of self and group limits

Leadership

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

- Actively participate in the decision making process
- Take responsibility for the health and well being of self and others
- Demonstrate sound expedition behavior, including commitment to group decisions and a positive attitude
- Effectively communicate ideas and concerns on an individual and group level
- Show initiative in leadership/teaching roles with peers
- Employ leadership styles appropriate to the situation; support others in the leadership role
- Work effectively as a team member
- Take responsibility for learning; set and attain personal goals
- Provide effective oral and written feedback

Outdoor Skills

At NOLS, our students learn to live and travel in the wilderness within a framework of personal health and care of 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
- Demonstrate appropriate campsite selection and shelter set-up
- Travel efficiently in mountainous terrain using map and/or compass skills
- Utilize off-trail navigation and route-finding techniques to mitigate hazards



- Employ sound bear camping and travel techniques
- Take responsibility for the care and organization of personal and group equipment

Environmental Studies

An integral part of every course is to raise students' awareness of their influence on ecosystems and their relationship with the world and others. Objectives include the ability to:

- Consistently perform sound minimum-impact living and travel skills by following Leave No Trace principles; be able to extrapolate the knowledge to new environments
- Show an understanding, appreciation and respect for the natural world; know characteristic flora and fauna of the area
- Develop basic natural history observation and interpretive skills
- Demonstrate basic knowledge and respect for local and regional native cultures
- Discuss the history of and potential solutions to pertinent environmental problems
- Demonstrate knowledge of public land management and discuss means to be involved in issues of interest
- Strive to integrate wilderness practices and ethics into daily personal and professional life

