

# Equipment List

## North Cascades Mountaineering

### Welcome to NOLS!

We look forward to having you with us this summer in the Pacific Northwest.

Reading this list will assist you in deciding what to bring. The gear listed is typically used on this course; the actual gear required may vary slightly with course route, curriculum goals, seasonal weather conditions, and instructor preference. Please try to avoid bringing anything that is not on this list. Remember that you will be carrying all your gear and that extra items affect pack volume and weight.

We can provide you with all of the equipment on this list except for those items designated as “Must Bring.” We recommend that you only bring gear that you already own or that you can obtain inexpensively. On the first day you will meet with one of your instructors to review each item you bring from home. If your gear meets our standards, you can use it on your course. If not, you may store any excess gear at our headquarters. **If you decide to purchase gear on your own before your course, we highly recommend you call NOLS and speak with our staff before making your final purchases. This will assure that what you buy will be appropriate for your course.**

While you are not obligated to rent gear from us, there are several reasons why we suggest it. Our rental gear is high quality, chosen and maintained specifically for the use it receives on our courses. The rental prices are reasonable given the wear the equipment receives. Also, if you plan to eventually purchase gear, you will have a better understanding of your future needs and preferences after your NOLS expedition. Finally, even if your equipment is appropriate, it will receive a lot of hard use. Students are often surprised at the amount of wear put on their personal gear in a month.

The availability of each item is indicated as follows:

**Purchase at NOLS** - Indicates that the item is available from NOLS, but for PURCHASE ONLY.

**Must Bring** - Indicates that the item is NOT AVAILABLE from NOLS.

**Rental Price** – The price to rent from NOLS is indicated in this column, and these items can be purchased at the end of your course (the rental price will be applied to the purchase price).

**The rental prices listed cover the entire course.** Purchase prices listed are for new gear. ALL PRICES ARE SUBJECT TO CHANGE. The rental and purchase prices located in the gear checklist will allow you to estimate your charges; final charges will vary depending on the amount of equipment that you rent or purchase from us. You have been charged an equipment rental deposit in addition to tuition. This deposit will be applied to the charges you incur for equipment rental, cleaning, purchase, and any loss or damage to our gear. If your bill is less than the deposit, the difference will be refunded to you by mail.

Formulating an idea of all the gear necessary for your expedition can be a new and daunting process. We have an experienced and competent staff ready to help, so if you have any questions or would like more information regarding any of the items on the equipment list, don't hesitate to contact the NOLS Pacific Northwest outfitting staff at:

Phone: (360) 445-6657

Email: [pnw\\_outfitting@nols.edu](mailto:pnw_outfitting@nols.edu)

Website: <http://www.nols.edu/courses/locations/pacificnw/>

Mailing Address: P.O. Box 527 Conway, WA 98238



### Upper Body Layers

NOLS uses a layering system where varied pieces of clothing are worn to achieve optimum body temperature control. The upper body garments listed here are either synthetic garments which retain their insulating properties even when wet, or nylon or Gore-Tex® layers which help prevent heat loss by stopping wind, rain and snow. You will need 3 insulating layers, plus a wind and a rain layer. All must fit comfortably over each other so they can all be worn at the same time. Your top-insulating layer must be a fleece made of Polartec 300, or an insulated jacket with a zipper.

Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
T-Shirt	Purchase at NOLS	\$27-\$39	1	We recommend Patagonia Capilene or other synthetic fabrics since they dry fast. This is not one of your insulating layers. No cotton.	
Base Layer (mid-weight synthetic)	Purchase at NOLS	\$45	1	Lightweight or mid-weight crew or zip turtleneck top of polyester, Capilene, or Polartec Power Dry.	
Mid-Layer (expedition weight)	Purchase at NOLS	\$55-155	1	Expedition-weight crew or zip turtleneck top of polyester fleece or Capilene.	
Top Insulating Layer (fleece or insulated jacket)	\$35	\$100-200	1	A heavy weight, full-length zip fleece jacket of Polartec 200 or 300 or insulated jacket that is lightweight, such as the Mountain Hardwear Compressor or Patagonia Micro Puff jackets. An insulated jacket is preferred.	
Wind Shirt	\$20	\$55	1	A lightweight, breathable, nylon wind shell either anorak or full-zip style. This must be large enough to fit comfortably over the 3 insulating layers.	
Rain Jacket	Purchase at NOLS	\$99-\$150	1	A sturdy, roomy waterproof jacket with a hood. Must be large enough to fit over all the insulating layers. <u>Breathable fabric such as Gore-Tex and H2NO are preferable and can work as both a wind and rain layer.</u>	

### Lower Body Layers

You'll need underwear, two lower insulating layers plus a wind layer and a rain layer, which must fit comfortably over each other so they can all be worn at the same time.

Equipment	Rental Price	Purchase Price	Quantity	Comments
Women: Underwear/ Sports Bras Men: Boxers	Purchase at NOLS	\$20-32	2 pair	Women's briefs and sports bras and men's briefs or boxers in Capilene, polypro or silk are recommended. Women's briefs in cotton will work.
Hiking Shorts	Purchase at NOLS	\$45	1 pair	Loose fitting nylon athletic or river shorts. No cotton.
Base Layer (mid-weight synthetic)	Purchase at NOLS	\$45	1-2	Light or mid-weight bottoms of high performance polyester or wool.
Mid-Layer (expedition weight fleece pants)	\$20	\$50	1	Expedition-weight bottoms of fleece (Polartec 200 weight or greater) or synthetic puffy pants.
Wind Pants	\$25	\$55	1	Breathable nylon wind pants that are roomy enough to fit over all lower body garments. Zippered legs will help you slip your pants on over your boots. We recommend that you rent wind pants from us. NOLS has a custom design that includes zippered legs and reinforced patches at points of wear that holds up well to the rigors of a NOLS course.



Lower Body Layers (Continued...)				
Equipment	Rental Price	Purchase Price	Quantity	Comments
Rain Pants	Purchase at NOLS	\$90-\$125	1	Waterproof and breathable pants to fit over all your layers. Again, zippered legs will help you slip your pants on over boots and crampons.

Head, Neck & Hand Layers					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Liner Gloves	Purchase at NOLS	\$13-21	1-2	Fleece, wool or polypro liner gloves for sun protection and hiking on cold, wet days.	
Mitten Shells w/Liner	\$20	\$120	1 pair	Waterproof shells to cover your mittens/gloves. Gore-Tex is acceptable. We rent Outdoor Research Cornice Mitts with liners.	
Baseball Cap or Sun Hat	Purchase at NOLS	\$18.25	1	Necessary for sun protection of your face and ears.	
Wool or Fleece Hat	Purchase at NOLS	\$22.50	1	A warm hat made of wool or fleece.	

Assorted Climbing Gear					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Ice Axe	\$15	\$95	1	Ice axe (15 cm to 70 cm) suitable for travel on snow or ice. Personal ice axes need leashes.	
Crampons	\$15	\$150	1	Step-in crampons.	
Helmets	\$8	\$65.95	1	A lightweight, adjustable climbing helmet.	
Backcountry Climbing Harness	\$15	\$44	1	Lightweight, fully adjustable harness for backcountry use. Adjustable leg loops are recommended for expedition use so the harness can fit over multiple layers of clothing. We rent Black Diamond Alpine Bod harnesses.	

Sleeping Gear					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Sleeping Bag	\$60	\$150-\$170	1	We recommend synthetic-insulated mummy bags approximately rated 0 to 10°F. Down bags are <u>not</u> suitable for the wet conditions sometimes encountered in the Northwest.	
Compression Stuff Sack	\$8	\$20-\$26	1	Large compression stuff sack for your sleeping bag.	
Sleeping Pad/Therm-A-Rest	\$10	\$54.95-\$64.95	1	A full-length closed cell foam pad to insulate and pad beneath your sleeping bag. Therm-A-Rest style full, or ¾, lengths are for sale only.	
Sleeping Pad Stuff Sack	\$5	\$13.50	1	Optional. A nylon storage bag, to protect your sleeping pad.	

Packs & Bags					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Backpack	\$90	\$344-\$455	1	We rent Lowe Alpine, Deuter, Osprey and Dana Design internal frame packs. If you decide to purchase an internal frame pack we recommend Deuter, Mystery Ranch G Series, Gregory Denali, Osprey or any other pack of similar quality and capacity. Internal frame packs must have a volume of 6000 - 7000 cubic inches (98 - 115 liters).	
Ditty Bags	\$2	\$5-\$11	2-3	Optional. Small nylon or net bags for organizing items in your pack.	
Plastic Trash Bags	Purchase at NOLS	\$1	2	Heavy-duty lawn and garden bags, a 2 mil/33 gallon bag for waterproofing your compression stuff sack and a 3 mil contractor cleanup bag for waterproofing your backpack.	

Miscellaneous Items					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Insulated Mug	Purchase at NOLS	\$4-\$15	1	12 oz. to 20 oz. insulated mugs with lids are preferred. Many staff use 16 oz. Nalgene water bottles for their mug.	
Bowl	Purchase at NOLS	\$3.50	1	A bowl with a snap-on lid. Re-sealable Tupperware type containers work great.	
Spoon	Purchase at NOLS	\$1-6.75	1	Lexan spoons are light and durable.	
Hydration System	Purchase at NOLS	\$8-\$34.95	2	Two water containers are required (64 oz. total.) One needs to be a water bottle. We recommend the other be a Platypus, Camelbak or MSR Hydromedary bag with 64 oz. capacity. Two water bottles are okay.	
Lip Balm	Purchase at NOLS	\$2.50	1-2	We recommend SPF 15 or greater.	
Sunscreen	Purchase at NOLS	\$14	1	4-ounce tube with SPF 30 or greater.	
Zinc Oxide	Purchase at NOLS	\$10	1	Optional. For total sun protection while on glacier.	
Glacier Glasses or Sunglasses	Purchase at NOLS	\$50-\$159	1 pair	Lenses should be dark and 100% UV resistant. You need a sturdy case. Glasses can be wrap around style or good quality sunglasses with side shields. If you have prescription lenses and have limited visibility without them, bring your own prescription sunglasses or look for a good quality polarized clip-on. Optic Nerve, Julbo, Smith, Oakley, and Bolle are good brands.	



Miscellaneous Items (Continued)					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Bandanas	Purchase at NOLS	\$2	1-2	Useful for a variety of purposes.	
Prescription Glasses and Contact Lenses	Must Bring	Must Bring	1 pair	Bring spare glasses or contact lenses. Contact lens wearers should consider bringing a pair of glasses as backup.	
Headlamp	Purchase at NOLS	\$29.95- \$39.95	1	LED headlamp preferable. Bring spare batteries. We sell Petzl and Black Diamond headlamps.	
Batteries	Purchase at NOLS	\$0.85/ea.	1 set	We have AA and AAA for sale.	
Disposable Lighters	Purchase at NOLS	\$1.00	1	Purchase at NOLS due to airline regulations.	
Personal Hygiene Articles	Must Bring	Must Bring	1	We have travel size toothpaste, toothbrushes and feminine hygiene products for sale.	
Instant Hand Sanitizer	Purchase at NOLS	\$2.50	1	2 oz. bottle- alcohol-based is preferable.	
Notepad	Purchase at NOLS	\$3-\$10	1	A small, lightweight pad is fine. We sell NOLS all-weather Expedition Journals.	
Pen	Purchase at NOLS	\$.75	1-2	Pen or pencil.	
Watch	Must Bring	Must Bring	1	Water-resistant. An alarm and a light feature are helpful.	
Sunglass Retainers	Purchase at NOLS	\$5.50	1	Chums® or Croakies® for your glasses or sunglasses.	

Optional Items					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Coffee	Purchase at NOLS	\$11/lb.	1	Bring if you enjoy specialty coffee for yourself in the morning. Coffee is not supplied in the NOLS ration.	
Vitamins	Must Bring	Must Bring	1	Some students bring a multi-vitamin to supplement the diet.	
Adjustable Trekking Poles	Purchase at NOLS	\$79	1	Bring if you like using trekking poles while hiking. Two or three section, telescoping poles are easier to pack.	
Camera and Film	Must Bring	Must Bring	1	Compact camera with protective case. No heavy lenses/elaborate set-ups.	
Fleece or Insulated Vest	\$18	\$45	1	A fleece vest of Polartec 200 or a synthetic filled vest. This is an additional layer if you tend to get cold.	
Balaclava	\$6.25	\$18	1	Fleece or wool balaclavas provide protection and insulation in severe conditions.	

Optional Items (Continued)					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Insect Repellent	Purchase at NOLS	\$6	1	A small bottle or tube. No aerosol spray cans.	
Mosquito Head-net	\$4	\$10	1	Mesh head-net with drawstring to protect from bugs.	

Footwear					
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You need a sturdy boot with good ankle support and proper fit for hiking on uneven terrain with heavy expedition packs. You'll need gaiters, camp shoes and at least 5 pair of hiking socks. If you sleep cold, bring an extra pair of socks for your sleeping bag. Depending on your instructors, some courses will use fleece booties inside the plastic mountaineering shells around camp instead of camp shoes.

If you decide to purchase boots in advance please refer to the boot fitting information included in your enrollment packet.

Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Plastic or Synthetic Composite Mountaineering Boots	\$80	\$275-\$340	1 Pair	Plastic boots are designed for extreme conditions. They are called "double boots," which means they have a warm removable liner with a firm plastic shell. They perform well in rocky terrain, snow, extreme cold and wet conditions. This is a great type of boot for beginners and high altitude mountaineering. Synthetic hybrid boots are the new boots in mountaineering, and are appropriate only for late summer courses in the Pacific Northwest. Many of these boots contain a mix of plastic and synthetic material often with Gore-Tex liners. These new designs are durable and light. See page 7 for specific recommendations for plastic and synthetic hybrid boots.	
Insoles	Must bring	Must bring	1 pair	Special insoles can provide arch support, stabilize your foot and heel, add cushion and help volume adjustment. Suggestions would be Spenco Polysorb or Superfeet insoles.	
Socks	Purchase at NOLS	\$10-\$16	4-6 pairs	Crew length. Socks must be heavy wool or wool/polypropylene blend. Wigwam and Smartwool are good choices.	
Liner Socks	Purchase at NOLS	\$5	2 pair	Lightweight wool, polypropylene or Capilene "wick dry" socks.	



Footwear (Continued)					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Gaiters	Purchase at NOLS	\$50-\$70	1 pair	Worn over the boots to keep out dirt and snow. Gaiters with zippers should have a double closure system either Velcro or snaps. Gaiters with tight elastic around the boot cuff are not acceptable. Gaiters must be larger than those for leather boots and <u>must be large enough</u> to fit comfortably over plastic boots. We sell Outdoor Research Crocodiles and Mountain Hardwear Stretch Ascent Air Perm gaiters.	
Camp Shoes	Must Bring	Must Bring	1 pair	Running, tennis or cross-training shoes, in good condition, to wear around camp. Avoid expensive shoes. Open-toed "river" or "mountain" sandals are not acceptable. Think lightweight!	
Booties	\$10	\$40-\$52	1 pair	Synthetic-fill booties (down is acceptable) to wear around camp inside the shells of plastic mountaineering boots.	

### Recommended Boots

NOLS Pacific Northwest rents plastic double mountaineering boots. The following boot list should help you define what boots are acceptable for your mountaineering course. All boots must be step-in crampon compatible and have a removable inner bootie. A removable liner allows you to dry the boots after a day of hiking. Leather boots are not acceptable for mountaineering courses.

<p><b>Plastic Boots</b>  <b>Asolo:</b> AFS Evoluzione  <b>Lowa:</b> Civetta  <b>Scarpa:</b> Invernos  <b>Scarpa:</b> Omega  <b>Koflac:</b> Degre</p>	<p><b>Synthetic Hybrid Boots</b>  <b>La Sportiva:</b> Baruntse  <b>La Sportiva:</b> Nuptse</p>
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### Group Equipment

Expedition members share both the use of and the responsibility for the group gear that NOLS issues. NOLS charges only for group equipment that gets lost or damaged. Keep in mind that NOLS evaluates gear from a number of perspectives beyond those that an individual user might consider. Performance, durability and simplicity are all factors we consider when we select our gear.

Group Gear		
All items listed below are provided by NOLS and shared among all expedition members. Group equipment is included as part of the course tuition; however, students will be charged for any lost or damaged group equipment.		
Tents & Shelters	Climbing Protection	Maps & Compasses
Camp Stoves	Climbing Ropes	Reference Books
Fuel and Fuel Bottles	Water Treatment	Binoculars
Cooking Gear	Equipment Repair Kits	First Aid Kits
Bear Resistant Food Containers	Fishing Equipment	Ground Cloths
Trowels or Shovels		



## Equipment Charges Worksheet

An equipment deposit is required of each student to cover the average cost of equipment rental and cleaning. You will be charged additionally for the replacement of any lost or damaged group equipment. Your actual expense will vary according to how much gear you rent and purchase from NOLS. Additional purchases of new and used gear may raise your total outfitting expense above your rental deposit. Rental and purchase charges will be totaled at the end of the course. Those using some of their own equipment may be eligible for a refund, which will be mailed 2-4 weeks after the course ends. If you exceed the amount of the equipment deposit, NOLS will charge your account and mail you a final statement.

TO ESTIMATE YOUR EQUIPMENT FEES FOR YOUR NOLS COURSE:		
1. Projected equipment rental charges from NOLS (Rental prices are for the entire course.)		\$
2. Projected purchases from NOLS: (Estimated from the checklist.)	+	\$
3. Add lines 1 and 2:	=	\$
This is your estimated total with RENTALS and PURCHASES		
4. Equipment deposit you have on credit (See your account statement for amount.)	-	\$
5. Subtract line 4 from line 3:		
This is your FINAL ESTIMATED BALANCE		
		\$

