

# Equipment List

## Southwest Instructor Course

**Welcome to NOLS Southwest!** We look forward to having you with us. We have designed this list to help you decide what equipment you will need for your course. Please take the time to read the following information carefully before making any equipment choices.

### Equipment Selection

Equipment selection and care is an essential wilderness skill. There is a bewildering variety of equipment on today's market. We urge you to do some research before buying and to be careful about lots of expensive pre-course purchases.

On the Southwest Instructor Course you will be introduced to the typical NOLS backpacking gear system on your first ration period of your backcountry section. For the second ration period we will be swapping out some group gear and personal gear and you will be introduced to the NOLS lightweight gear system and curriculum. In the recent years we have been stressing lighter weight gear options for all of our backcountry courses (lightweight courses or not), so you will notice that we have listed recommended weights for many items on this equipment list. We strongly recommend that you purchase an eleven-pound postage scale to help you prepare for this trip. By weighing each piece of equipment you might bring, you will be able to make better choices in your gear selection. Scales will also be available for use during the issue process at NOLS Southwest.

You are welcome to bring any gear on our equipment list that you already own. Please try to match your selections as closely as possible to the items described in the following list. Your instructors will inspect all of the gear you bring to determine if it is suitable for your course's specific route and anticipated weather. If an item is not approved, you can leave it with your luggage in our storage lockers. You may be asked to rent or purchase gear from our outfitting department to supplement what you brought with you. **Your specific instructor team, recent weather and route will ultimately determine which gear is best for your expedition.**

### Gear Purchase

Throughout the course, students have the opportunity to purchase new and used equipment from NOLS. We offer substantial discounts for purchasing used equipment and the rental fee for gear used on your course will be applied toward the purchase price. A cautionary note: a number of additional gear purchases may raise the total outfitting bill above the equipment deposit.

If you wish to buy gear before your course, consider using one of our Preferred Retailers. These are retail stores that maintain close ties to NOLS. The staff at these stores are familiar with NOLS and have a good idea of the equipment you need for your course. Please ask the NOLS admission office about Preferred Retailers in your area or visit our website at [www.nols.edu/about/partnerships/retailers](http://www.nols.edu/about/partnerships/retailers).

### Equipment Fees

The NOLS Southwest outfitting department is capable of providing virtually all of the equipment needed for your course, **with the exception of hiking boots**. To cover the cost of your equipment purchases and rentals from us, you have been charged an equipment deposit in addition to the course tuition. (See your account statement for the amount.) The equipment deposit equals the cost of what the average student spends on gear purchases and rental items for this particular course. Additional charges will be incurred for any equipment that is lost or damaged. You will be billed for any charges that exceed your equipment deposit or refunded any balance approximately 2-4 weeks after the end of your course. **Please note that the rental prices listed are per course. Prices are subject to change.**

### Equipment List

Please pay careful attention to those items we do not provide, or those that are for purchase only— with no option to rent.

**The availability of each item is indicated as follows:**

**Purchase Only** — The item is available from NOLS, but for PURCHASE ONLY.

**Rental Only** — The item is available at NOLS, but for RENTAL ONLY.\*\*

**Must Bring** — The item is NOT AVAILABLE from NOLS; must bring from home.

*\*\* Rental Only items have the opportunity to be purchased at the end of your course if you are interested. The rental price is then applied towards the purchase price.*



Please do not hesitate to call us at NOLS Southwest (520-749-0955) if you have any questions, especially in regards to the “lightweight section” of your course. We love hearing from future students before courses start!

### Upper Body Layers

NOLS uses a layering system where different combinations 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 repelling wind, rain, and snow. You will need three insulating layers plus a wind layer and a rain layer. All must fit comfortably over each other so they can all be worn at the same time, if necessary. One of these layers must be a heavy fleece made of Polartec® 300 or equivalent, or a synthetic-filled “puffy” jacket with a zipper. Synthetic t-shirts are necessary for your backpacking section, but you may bring cotton t-shirts for the climbing section of your course.

Equipment Item	Rental Price	Purchase Price	Quantity	Comments	Check List
Primary Insulating Layer (Mid-Weight Top)	Purchase Only	\$40 - \$55	1	1 mid-weight underwear top made of wool, polypropylene or Capilene®. [Example: Patagonia Capliene 2 Lightweight Crew, 5.6oz]	
Secondary Insulating Layer (Expedition Weight Top)	Purchase Only	\$80 - \$150	1	Polyester fleece pullover/expedition weight top of Polartec® 100 or 200, or a wool sweater. DO NOT bring an expensive "favorite" sweater; this item will receive extensive wear. [Example: Patagonia R1 Hoody, 11.5 oz]	
Top Insulating Layer (Fleece Jacket)	\$20	Rental Only	1	A heavyweight full-length zip fleece jacket of Polartec® 300 or equivalent weight. All other layers must be able to be fit comfortably under this top layer. You will need either a fleece or the synthetic puffy top layer listed below. [Example: Patagonia R2 jacket, 13.1oz]	
Top Insulating Layer (Synthetic “puffy” Jacket)	\$30	\$145 - \$190	1	A warm synthetic filled puffy jacket is recommended, especially for people who get cold easily. We recommend synthetic. Down can be used, but requires extra care in wet conditions. [Example: Mountain Hardwear Compressor Jacket, 16oz]	
Wind Shirt / Jacket	\$20	\$60 - \$80	1	A lightweight, breathable, nylon wind shell either pullover or full-zip style. Must be large enough to fit over all of your insulating layers. Hooded wind jackets are strongly recommended. Does not need to be waterproof. [Example: Patagonia Houdini Jacket, 3.7oz]	
T-Shirts	Purchase Only	\$20 - \$40	2-3	1 synthetic shirt for hiking, and 1-2 cotton t-shirts for climbing. We highly recommend polyester or Capilene® for hiking because it dries much more quickly than cotton and can be incorporated into a layering system. Consider a men’s polyester button up dress shirt for a hiking shirt, inexpensive at a thrift store and provides great sun protection! [Example: Patagonia Capilene 1 Silkweight T-Shirt, 3.4 oz]	

### Upper Body Layers (Continued)

Equipment Item	Rental Price	Purchase Price	Quantity	Comments	Check List
Rain Jacket	Purchase Only	\$120 - \$150	1	Bring a lightweight (less than 16oz), waterproof, breathable rain jacket. Both coated nylon and breathable fabrics such as Gore-Tex® are acceptable. [Example: Marmot Precip Jacket, 13oz]	
Sport Bras	Purchase Only	\$35	1	We stock Patagonia synthetic sports bras.	

Our advice? The Gila **can get very cold** in April, and most **courses encounter rain and snow**. Bring the synthetic jackets and other layers you think might work. We'll advise you on the best combination for the current weather conditions.

### Lower Body Layers

You will need at least 2 synthetic insulating layers, plus a wind layer. All must fit comfortably over each other so that they can be worn at the same time.

Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Primary Insulating Layer (Mid-Weight bottoms)	Purchase Only	\$40 - \$50	1 pair	Lightweight (under 6 oz.) bottoms such as GoLite Drimove (6 oz.) or Patagonia Capilene 1 or 2 (5.5 oz.). We stock Patagonia Capilene 2 bottoms. Wool and silk are good alternatives.	
Secondary Insulating Layer (Fleece Expedition-Weight or Synthetic Puffy Pants)	\$25	\$53 - \$140	1 pair	Synthetic puffy insulation or Polartec® 200 or equivalent. Side zippers (full length, or knee high) make it easier to put pants on over hiking boots. We sell puffy pants and rent fleece pants. [Examples: Patagonia Capilene 4 Expedition Weight Bottoms, 7.1 oz or Montbell U.L. Thermawrap Pants 10.2 oz.]	
Wind Pants/Rain Pants	\$30	\$65 - \$100	1 pair	Breathable nylon wind pants or breathable rain pants that are roomy enough to fit over all lower body garments. Zippered legs will help you slip your pants on over boots. Lightweight running pants are not durable enough. 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.	
Shorts	Purchase Only	\$33 - \$45	1 pair	Loose fitting and quick drying nylon athletic or river shorts work well for your backpacking section. Cotton shorts will only be acceptable for your climbing section. [Example: Patagonia Baggies, 8.1 oz]	
Underwear	Purchase Only	\$20 - \$35	2-4 pair	Silk / synthetic or none. We recommend that men go without underwear, and just use nylon shorts with liners. Women should go with what's comfortable. We stock Patagonia silk-weight briefs for women and boxers and briefs for men.	

Our advice? Bring the synthetic or wool long johns and fleece or puffy pants that you think might work. We'll advise you on the best combination for your course.

Head, Neck & Hand Layers					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Sun Hat, Baseball Cap or Visor	Purchase Only	\$20	1	Bring a baseball hat, sun hat or visor to protect face and ears from the sun. We stock NOLS Southwest baseball caps and visors.	
Wool/Fleece Hat	Purchase Only	\$15-\$30	1	A warm hat made of wool or fleece.	
Lightweight Gloves	Purchase Only	\$9-\$15	1 pair	Wool or fleece are acceptable. [Example: Outdoor Research PL glove liners, 1.4 oz]	

Packs & Bags					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
We carry the Osprey Escalante, NOLS Deuter and Golite Odyssey backpacks.					
Backpack / Lightweight Backpack	Full Size Backpack \$40 Lightweight Backpack \$20	New: \$300 - \$350 Used: \$200 - \$300	1	<p>Various internal frame backpacks are available to rent from NOLS. Our packs are large, expedition models. If you are planning to purchase a backpack in advance, or bring your own, it must have a volume of 5500 cubic inches. A compression stuff sack is required for your sleeping bag.</p> <p>Recommended packs: GoLite Odessey (3.5 lbs.), Osprey Aether Series, NOLS Deuter pack (4 lbs.), or other packs of similar quality and capacity. The backpack itself should weigh no more than 4-5 lbs.</p> <p>If you do not already own a backpack, we recommend you rent one from us. You can decide after your course what size and type of backpack you wish to purchase. If you bring your own backpack your instructors will examine it to determine its suitability.</p> <p>You can rent a GoLite Jam pack from NOLS Southwest for the lightweight portion of your backpacking section.</p>	
Climbing "Day" Pack	\$30	\$170	1	Used for the climbing section. Needs to be big enough for personal things and group climbing gear—minimum of 2750 cubic inches.	

Packs & Bags (Continued)					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Small Stuff Sacks	\$4	\$15-\$20	2 - 3	Small nylon or mesh sacks with drawstrings for organizing items in your pack.	
Big Duffel Bag	\$20	\$30 - \$40	1	A large-sized zippered nylon bag (4000-8000 cu. inches) is used for packing/storing all your gear on the climbing section.	

Sleeping Gear					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Sleeping Bag	\$60	Available new and used for \$100-\$270	1	<p>Despite popular belief, <b>it gets very cold in the Southwest at night.</b> We recommend synthetic-filled bags (Quallofil®, Hollofil®, Polarguard®, etc.), which are very durable and perform well in the variety of conditions we encounter. A bag with a 5°-15° F temperature rating is required. Bags lose loft and subsequent warmth over the years. A bag can lose at least 10° of warmth over the course of a year. We rent Mountain Hardwear® 0°-15° Lamina bags and have the 15° Montbell Down Stretch Hugger bag for sale.</p> <p>Down bags are lighter and have less bulk, and still provide excellent warmth. They do require more care in the field, but are acceptable for your course.</p>	
Compression Sleeping Bag Stuff Sack	\$20	\$20 - \$55	1	Recommended for use with internal frame packs. These bags have straps attached to them for compressing sleeping bags while packing. Look for lightweight sil-nylon versions. [Example: Granite Gear Air Compressor, 2.2 oz]	
Plastic Trash Bags	Purchase Only	\$.75 - \$1.00	2-3	2-3 heavy-duty trash compactor bags (33 gallon) to help waterproof your sleeping bag stuff sack and backpack.	
Sleeping Pad	\$12	\$8-\$12 (ensolite) \$60 - \$70 (Therm-A-Rest®)	1	A full-length or 3/4-length closed cell foam pad to insulate and pad between the ground and your sleeping bag. Therm-A-Rest® pads are acceptable if you bring a patch repair kit. NOLS does not rent self-inflating pads, only foam pads. [Example: Therm-a-rest Trail Lite Regular, 2.0 lbs]	
Sleeping Pad Stuff Sack	\$4	\$8-\$16	1	If you are planning to rent a foam pad from us, then plan to rent a stuff sack as well. This helps make it easier to pack, and cuts down on wear and tear.	
Ground Cloth	\$8	\$12 - \$20	1	A lightweight nylon sheet to go between your sleeping pad and the ground.	

### Climbing Equipment

Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Helmet	No Charge	-	1	You may bring your own UIAA approved helmet or you can use one from NOLS for free.	
Rock Shoes	\$38	New & used \$60 - 130	1 pair	Shoes should be tight fitting (“toes just hit the end”), but loose enough that they can be worn for up to five hours at a time.	
Harness	\$32	\$75	1	We have harnesses for rent, but if you own one, bring it along.	
Cotton Climbing Pants	Must Bring	Must Bring	1	Optional. Comfortable cotton or polypro pants to protect your legs while climbing.	
Climbing Shorts	Purchase Only	\$35 - \$45	1 pair	Cotton shorts are appropriate for your climbing section. Longer shorts are best to wear with a harness. [Example: Prana Mojo shorts]	
Chalk Bag	Purchase Only	\$20	1	Optional. Chalk bags hold chalk that is used to dry hands while climbing.	
Chalk Ball	Purchase Only	\$4	1	Optional. Gymnastic chalk enclosed in a tight mesh sock. Used to dry hands while climbing.	

Our advice? If you own a harness, helmet, chalk bag and pair of shoes, bring them along. If your instructors approve, you can use them. We will use the school's climbing protection, belay devices, slings, carabiners and ropes.

### Miscellaneous Items

Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Insulated Mug	Purchase Only	\$5 - \$9	1	12 to 20 oz. insulated mugs with lids are preferred.	
Bowl	Purchase Only	\$4 - \$8	1	A lightweight bowl with a snap-on or screw on lid. Tupperware works well.	
Spoon	Purchase Only	\$2	1	Lexan spoons are light, durable and popular.	
Water Bottles	Purchase Only	\$7 - \$11	2	Wide mouth quart- or liter-size plastic bottles with a total capacity of 2 liters.	
Hydration System	Purchase Only	\$13 - \$40	1	Very handy and popular. We carry Platypus bottles and MSR Hydromedary bags. (1 – 3L)	
Lip Balm	Purchase Only	\$3	1	Stick, cream, or tube type moisturizing balm with sun protection factor SPF 15 or greater	
Sunscreen	Purchase Only	\$3 - \$9	1	An 8- to 10-ounce tube with sun protection factor SPF 15 or greater.	
Bandanas	Purchase Only	\$3	2 or 3	A few of these are always handy.	
Sunglass Retainers	Purchase Only	\$6	1	Optional. Chums® or Croakies® for keeping track of your glasses or sunglasses.	

Miscellaneous Items (Continued)					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Sunglasses	Purchase Only	\$40 - \$75	1 pair	Lenses should block 100% ultraviolet and 95% infrared light. We carry various brands and styles.	
Headlamp	Purchase Only	\$25 - \$50	1	Durable and lightweight. LED headlamps are popular. Bring spare batteries. . [Example: Black Diamond Storm headlamp, 3.9 oz.]	
Batteries	Purchase Only	\$.75 each	1 set	We have AA and AAA batteries for sale.	
Disposable Lighters	Purchase Only	\$1.50	1	Used for lighting your camp stove.	
Toilet Articles	Purchase Only	\$1.50 - \$5	1 of each	Toothbrush, toothpaste, comb, brush, skin lotion, tampons, etc. Travel or trial sizes are enough. We carry soap, toothpaste, toothbrushes and shampoo.	
Watch	Purchase Only	\$40 - \$60	1	A watch with an alarm is a necessary item.	
Notepad and Pencil/Pen	Purchase Only	\$4-\$10/.50	1	A small, lightweight pad is necessary for taking notes.	
Town Clothes	Must Bring	Must Bring	2 sets	Bring two sets of comfortable clothing that you can travel in — jeans, shorts, t-shirt, sweatshirt, etc. Avoid bringing excess clothing, as storage space is limited.	
Towel	No Charge	-	1	We will provide you a towel for showering with after your course and in between sections.	
Our advice? Keep the toiletries, pocketknife and camera gear to small sizes. We work to keep our pack weight as low as possible. Saving every ounce is essential!					

Optional Items					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Liner Socks	Purchase Only	\$7	1 - 2 pairs	Lightweight wool, polypropylene or Capilene® "wick dry" socks. You will need at least two pairs if you are using the liner sock/wool sock combination in your hiking boots.	
Pocket Knife	Purchase Only	\$40 - \$60	1	Optional. One small, lightweight knife is sufficient; a simple Swiss Army knife is best.	
Vitamins	Must Bring	Must Bring		Not necessary, but a small quantity of multi-vitamins is popular among staff and students for a course of this length.	
Insoles	Must Bring	Must Bring	1 pair	To assure your comfort in hiking boots an after market insole (available for purchase separate from footwear) can provide arch support, stabilize your foot and heel, add cushion and help volume adjustment. Suggestions would be Spenco Polysorb®, Superfeet, Montrail Stabilizing Insoles.	

Optional Items (Continued)					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Water Treatment	Must Bring	Must Bring	1	NOLS supplies Aqua Mira for backcountry water purification. Aqua Mira is a chlorine dioxide based treatment that is iodine and chlorine free. However, if you have sensitivity to this treatment you may need to bring your own water filter such as the PUR Scout or Hiker, or the Sweetwater Guardian.	
Book	Purchase Only	\$6 - \$38	1 or 2	A small, lightweight paperback reading book.	
Camera	Must Bring	Must Bring	1	Lightweight, 35 mm digital compact cameras are sufficient; bring a protective case. Avoid heavy lenses and elaborate set-ups on the backpacking section.	
Backpacker's Camp Chair	Purchase Only	\$35 - \$44	1	Crazy Creek or one with Therm-A-Rest fitting. These collapsible camp chairs may mean carrying a little extra weight, but most students and instructors consider it a worthwhile investment.	
Prescription Glasses And Contact Lenses	Must Bring	Must Bring	1-2 pair	Bring a spare pair of glasses or lenses. Contact lens wearers should also bring a pair of glasses as backup. Again, prescription sunglasses are a nice item to have in reserve.	
Trekking Poles	Purchase Only	\$65 - \$70/pair	1 or 2	If you like to use a trekking pole while you hike. It should be a sturdy 2-3 section pole that packs easily.	
Thermos	Purchase Only	\$25 - \$30	1	Great for keeping morning drinks warm during your basecamp section.	

Footwear					
Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Hiking Boots	Must Bring	Must Bring	1 pair	Sturdy medium weight backpacking boots with good ankle support and proper fit are critical for hiking on uneven terrain with heavy expedition packs. See recommended boots at the end of this document.	
Socks	Purchase Only	\$8 - \$12	3-4 pair	3-4 pair, crew length. Socks must be heavy wool or heavy wool/synthetic blend. Cotton/wool blend socks are not appropriate. Additionally, a few pairs of shorter ¼ length socks are nice for the climbing section.	
Gaiters	Purchase Only	\$45	1 pair	Gaiters keep dirt and other debris from entering the boot. These are a critical part of your footwear system. [Example: Outdoor Research Crocodile Gaiters]	

### Footwear (Continued)

Equipment	Rental Price	Purchase Price	Quantity	Comments	Check List
Camp Shoes/Lightweight Hiking Shoes	Must Bring	Must Bring	1 pair	Lightweight running, tennis or cross-training shoes, in good condition, to wear around camp. Open-toed "river" or "mountain" sandals are not acceptable for the backcountry. Crocs are acceptable. <b>You will need a pair of trail runners for the lightweight hiking portion of your course.</b>	

Our advice? Your boots will be a critical piece of gear. If they're not sturdy, don't provide enough support or don't fit properly with at least a liner and a wool sock, we won't let you use them. If you have any questions about boots, please feel free to call NOLS Southwest!

#### Recommended Boots

**Please note that NOLS Southwest does not rent or sell hiking boots.** Medium-weight, off-trail backpacking/light mountaineering boots work best. This type of boot is constructed with a full grain leather upper and typically has a Vibram® rubber sole. Some models utilize an injection molded, composite rubber sole with a randed welt to bond the leather upper to the sole. Both types of sole are acceptable. These boots are designed for extended backpacking, provide good support for off-trail hiking with 40 – 60 pound packs, and usually require less break-in time than heavyweight mountaineering boots.

The following list is not exhaustive and is to be used for suggestions only. The boots listed here should help define what types are acceptable for your course. It is fine to substitute a similar boot for one listed here provided the boot that you bring is a good quality leather model designed for extended backpacking expeditions with heavy packs.

#### EXAMPLES OF ACCEPTABLE BOOTS\*

Examples Of Acceptable Boots\*

Asolo: TPS 520 GV, TPS 535

Lowa: Tibet GTX, Banff, Baffin Pro

La Sportiva: Thunder II GTX, Cypress GTX

Montrail: Feather Peak GTX

Scarpa: Barun GTX, Mustang GTX

Vasque: Wasatch GTX, Summit GTX

#### Lightweight Hiking Shoes

You'll need a lightweight hiking shoe/sneaker that has adequate stability, breathability, and foot protection. This pair of hiking shoes will be used for the second portion of your backpacking section, where we will be introducing you to the NOLS lightweight backpacking curriculum. Avoid shoes with large quantities of leather, as this adds weight and drying time. Gore-Tex liners also increase drying times if shoes get wet, and decrease breathability (increase heat retention) of shoes. If fit is of concern, please seek expert advice from a reputable retailer. The fit should be slightly roomy, one half size larger than your normal shoe size to accommodate swelling from altitude and exercise. This will also help to avoid blisters and sore feet. Before arriving for your course, take some time to do a few day hikes to make sure your shoes fit comfortably. The following brands and models are appropriate for the course. They are in no particular order.

#### Examples Of Acceptable Hiking Shoes

Montrail: AT Plus, Masochist

La Sportiva: Raptor, Crosslite, Imogene

Salomon: XA Pro 3D Ultra, XA Comp 5, XT Wings 2

Vasque: Mindbender, Velocity

*\*Please note that boot and shoe manufacturers often rename their product line. Visit the manufacturer's website or contact us if you have questions.*

## Resources

An excellent resource for unique ultra-light gear is the website [www.backpackinglight.com](http://www.backpackinglight.com). In addition, [www.golite.com](http://www.golite.com), [www.granitegear.com](http://www.granitegear.com), [www.outdoorresearch.com](http://www.outdoorresearch.com), [www.montbell.com](http://www.montbell.com), and [www.gossamergear.com](http://www.gossamergear.com) are other great lightweight gear resources.

## Group Equipment

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
- Camp Stoves
- Fuel and Fuel Bottles
- Trowels or Shovels
- Maps & Compass
- Reference Books
- First Aid Kits
- Cooking Gear
- GPS Units
- Binoculars
- Equipment Repair Kits
- Water Purification

