

The National Center for Outdoor & Adventure Education (NCOAE) equipment list of required and optional gear will help you decide what to bring and what not to bring on your NCOAE adventure.

When it comes to outdoor equipment, there's no need to go all out and buy every piece of fancy gear just to cram in into your new, state of the art backpack. Remember you will be carrying everything you bring with you on your trip – PLUS some of the food and some of the group gear. Foremost in your mind should be weight, each item adds up to what will eventually be strapped to your back. So do the research, read the labels and consider what you can do without. If you don't need something, don't bring it!

You can save money too using the gear provided by NCOAE and by purchasing many items from the athletic clothing, sporting goods, and camping sections at your local discount store, such as Target. Athletic clothing is usually synthetic and works well for camping.

- If you have questions about gear you already own, send us an e-mail or call and we will assess its suitability for the environment where it will be used. We might suggest that you return your grandfather's heavy cotton sleeping bag to the garage and rent or purchase a lightweight, synthetic version instead. Any gear you bring must meet NCOAE's standards.
- If you prefer to purchase all of your gear that's fine too, but if you're not sure you'll ever use that \$400 internal frame backpack or sleeping bag again, we may have one available to rent! Of course you don't have to rent equipment from us, but our gear is tailor-made to fit our expeditions
- All participants who wish to rent gear must pay a \$250 deposit on gear to cover possible loss or damage. If all gear is returned in the condition in which you received it, the full deposit will be applied to any rental charges, and the remainder returned to you – so inspect the gear closely before and after renting. Damaged or lost group gear expenses are divided among all participants. Damaged or lost rental gear is charged to the renter. All rental gear is \$25 per item.
- Please do not pack jeans or jean shorts. If you have a choice, please pack non-cotton clothing. Mesh or synthetic clothing dries quickest and therefore is the best option while backpacking.
- Remember to bring one or two sets of "in-town clothes" for your return flight / drive after the trip!
- Items listed below with an asterisk (*) may be available, in limited quantities, for student rental, on an as needed basis.

Comments, questions, concerns... Call NCOAE Headquarters Monday through Friday between the hours of 8:30am-4:30pm EST at (910) 399-8090.



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Packs and Bags EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Internal Frame Backpack*	Must Bring, or Rent - \$25.00	1	Internal frame backpack. Must be at least 65 liters . Volume of 75 to 85 liters is ideal (4,600-5,200 cubic inches).	
Waterproof Stuff Sacks / Gallon Zipplocs	Must Bring	1-4	Used to organize items in your pack. Lightweight drysacks are convenient (example: eVent Sil DrySack).	
Day Pack	Must Bring	1	Small backpack for use on day hikes or trips into town.	
Zip Duffle	Must Bring	1	Used to organize and store items while at camp. (Example: Outdoor Products 12x24 Deluxe Duffle).	
Dry Bag	Optional – NCOAE provides	1	Used to organize and store personal and group gear while on the river. (Example: Sealline Dry Bag, 65 - 110 liters).	
Footwear				
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Sturdy, Waterproof Hiking Boots	Must Bring	1 pair	Must be WATERPROOF and at least mid-weight. Recommend leather boots. Please read the Boot Selection Guide for details.	
Camp Shoes	Must Bring	1 pair	Closed-toed shoes are a must to protect your feet and are more comfortable for wearing in camp.	
River Shoes / Sandals	Must Bring	1 pair	For protection from rocks, sharp objects, or in case you happen to fall out in the water. Must have a heel strap . (Example: Keens, Chacos).	
Hiking Socks	Must Bring	4-6 pairs	Must be a wool, synthetic, or a wool/synthetic blend. No cotton or wool-cotton blends.	
Gaiters	Optional	1 pair	Low gaiters are acceptable.	
Upper Body Clothing				
			eight insulation layer, & puffy jacket), a wind-proof/rain layer, and u get cold easily, we suggest that you take four insulating layers, or	
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Base Layer - Long Underwear Top	Must Bring	2	Light or expedition-weight synthetic or performance wool is best. (Examples: Patagonia Capilene, Smartwool)	
Fleece Jacket or Lightweight Jacket	Must Bring	1	Light to mid-weight fleece jacket that fits over your base layers. (Example: Mountain Hardwear Microchill)	
Long-Sleeved Shirt / Expedition Weight Pullover	Must Bring	1	Must be synthetic. (Examples: Patagonia R1 Hoodie, Mountain Hardwear Expedition-Weight zip-tee)	
T-Shirt	Must Bring	3 - 4	Lightweight synthetic or wool shirts recommended.	
Fleece or Synthetic-fill Insulated Vest	Optional	1	A vest can supplement other upper layers, which is good for folks who get cold easily. (Example: Patagonia Synchilla Vest)	
Insulated Jacket / Puffy	Must Bring	1	A warm, synthetic-fill "puffy" jacket that fits over your base layers. (Example: Patagonia Nano Puff Hoody)	



Rain Jacket*	Must Bring, or Rent - \$25.00	1	Must be WATERPROOF . Jacket should be roomy enough to fit comfortably over all upper-body layers. For rainy or stormy days in the backcountry. Ponchos are NOT ACCEPTABLE .	
Lower Body Clothing				
You need two to three lower combination: Mid-weight long		=	comfortably over each other and underneath your wind/rain pant ain pants.	s. Example
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Base Layer - Long Underwear Bottoms	Must Bring	2 pairs	Mid- or expedition-weight synthetic or performance wool is best. (Examples: Patagonia Capilene, Smartwool).	
Insulated or Fleece Pants	Optional	1 pair	Fleece or synthetic-filled pants for when the weather is especially cold. (Examples: Sherpa Jaaro Microfleece Pants)	
Rain Pants*	Must Bring, or Rent - \$25.00	1 pair	Must be WATERPROOF . These need to fit comfortably over your hiking pants.	
Hiking Pants	Must Bring	2 pair	Nylon or other synthetic hiking pants are recommended for protection from bugs and dense vegetation.	
Nylon Shorts	Must Bring	1 - 2 pair	Nice for warm days. Pockets are nice to have.	
Miscellaneous Clothing		_		
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Sun Hat or Baseball Cap	Must Bring	1	Should be wide-brimmed to protect from sun.	
Winter Hat	Must Bring	2	Fleece or wool hat that will fully cover your ears.	
Bathing Suit	Must Bring	1	Necessary for paddling parts of the adventure.	
Buff, Balaclava, or Neck Gaiter	Optional	1	Used to keep your head, neck, and ears warm or protect from the wind and sun.	
Bandana	Must Bring	1	For multiple uses.	
Leather Work / Gardening Gloves	Optional	1 pair	For use on the farm & to keep hands warm on cool mornings/evening.	
Lightweight Gloves / Liners	Optional	1-2 pair	Lightweight wool or synthetic gloves may be layered with heavier gloves for warmth or worn alone for sun protection.	
Waterproof Gloves or Mittens	Must Bring	2 pair	Must be Waterproof. Wool or synthetic gloves or mittens for cold mornings or evenings around camp.	
Neoprene Gloves	Optional	1 pair	For use while paddling	
Underwear/Bras	Must Bring	5-10 pair underwear 2 Bras	Undergarments made from merino wool or synthetic to wick moisture are highly recommended. Cotton briefs for women are acceptable.	
In Town Clothes	Must Bring	1-2 pairs	Comfortable, casual set of clothes for in town & for your flight home at the end of your course.	



Sleeping Gear				
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Mummy Style Sleeping Bag w/Stuff Sack*	Must Bring, or Rent - \$25.00	1	Temperature rating of 20 degrees F or colder. Recommend synthetic and a compression stuff sack recommended.	
Sleeping Bag Liner	Optional	1	To keep you warmer on cold nights. Recommended if you get cold easily at night. Wool or synthetic recommended.	
Sleeping Pad*	Must Bring, or Rent - \$25.00	1	Closed-cell foam or self-inflating pads. (Example: Therm-a-rest Ridgerest or Z Lite).	
Miscellaneous Gear				<u>'</u>
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Required or Prescription Medication (if applicable)	Must Bring	1 Set	Bring enough to last the entire trip. All medications must be in the original bottle with instructions for administration, and your name on it. Please pack all prescribed medicine.	
Toiletries (small, travel sized only)	Must Bring	1 Set	Toothbrush, Toothpaste, Lip Balm w/Sunscreen (SPF 15 or higher), Moisturizer, Feminine Hygiene products. Shampoo, Conditioner, Facewash & Soap, and Washcloth/Loofah for intown days.	
Watch w/ Alarm	Must Bring	1	Must be waterproof (Example: Timex Expedition)	
Headlamp	Must Bring	1	Durable and lightweight.	
Extra batteries	Must Bring	1-2 sets	Bring 1-2 spare sets for headlamp	
Pocket Knife	Optional	1	One small pocket knife is sufficient.	
Water bottle	Must Bring	2	Durable plastic water bottles. Filter must be included. Should be at least 32oz. Example: <u>Lifestraw Go</u>	
Insulated mug	Must Bring	1	Durable plastic for hot drinks.	
Plastic Bowl	Must Bring	1	Tupperware or Nalgene style, 16-30 oz capacity, with lid.	
Spoon or Spork	Must Bring	1	Plastic or metal utensils	
Camp Towel	Must Bring	1	A pack towel that is compressible, lightweight, quick-drying, made of a microfiber or microfiber blend. For use after sweating or after getting in water.	
Insect Repellent & Sunscreen	Must Bring	1	Small, travel sized bottles – NO AEROSOLS. Sunscreen must be SPF 30 or greater.	
Sunglasses, Wrap-around style	Must Bring	1	Durable with 100% UV protection. If you wear prescription lenses, bring your own prescription sunglasses. You will want to block the sun from the sides. (Examples: Julbo, Native).	
Prescription Glasses and Contact Lenses	Must Bring	Multiple	If you wear prescription glasses or contact lenses, bring a spare set. Even if you wear contacts daily, plan to carry a pair of glasses.	
Eyeglasses Strap	Optional	1	Good brands are Chums and Croakies.	
Trekking Poles	Optional	1-2	Recommended for trekking portion.	



Sit pad or Camp chair	Optional	1	Portable seat for increased insulation when sitting on ground. Crazy Creek, sleeping pad adaptor, or make from cut foam.				
English to Spanish / Spanish to English Pocket Dictionary & Phrase Book	Optional	1	Guide can help ease awkward situations until your fluency improves.				
Optional Items							
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS		CHECK LIST		
Camera	Optional	1	Small, waterproof & shockproof camera. Bring extra battery and memory card. You are not permitted to bring cell phones or tables into the backcountry, even for camera use.				
Binoculars	Optional	1	Small, travel sized.				
Book	Optional	1	A small, lightweight book for reading.				
Small Card Game or Cards	Optional	1	For down time.				
Ear Plugs	Optional	1-2 pairs	To block out loud sleepers				
Personal Coffee	Optional	Multiple	Most coffee sold in stores is instant.				
Notebook w/ Pen or Pencil	Must Bring	1	A notebook for journaling or drawing.				
Camp Pillow	Optional	1	Should be small, made out of a synthetic material and compressible.				
NCOAE Will Supply							
Students share both the use	of and the respon	sibility for th	e group gear that NCOAE disp	enses.			
Sleeping Shelters		Group & Solo Tarps		Toilet Paper & Trowel			
Stoves, Fuel Bottles & Fuel		Maps & Reference Books/Materials		Compass & Whistle			
Cooking Gear		Course Food & Spice Kit		Water Treatment			
First Aid Kit		Repair Kit		Group Sunscreen & Bug Spray			
Food Canisters or Bags		Soap, Hand Sanitizer & Hygiene Wipes		Mountaineering Gear & Safety Equipment			
PFD's		Helmets		Paddling Gear & Safety Equipment			



Boot Selection Guide

NCOAE has been outfitting people with boots for many years, and our priorities have remained the same: we want you to have footwear that provides adequate protection for your feet and ankles, that is durable enough to withstand weeks of wet, rugged wear and that provides reasonable comfort. Many boots available on the market do not meet these criteria.

When considering footwear, remember that your course may travel off trail. You may be walking through cold streams, and your feet could get wet. You could be in rain or snow for days. The type of footwear that you need will depend on how heavy your pack is and how strong your ankles and feet are.

Here are some features to look for in and hiking boots:

- A sole that provides good traction like Vibram or other lugged sole.
- Some form of nylon shank to provide foot support and protection.
- Ankle support
- Durable uppers that will withstand hiking among sharp boulders and dense vegetation.
- Boots must be waterproof. A Gore-Tex liner is recommended, but not required.
- A comfortable fit with your preferred hiking socks. Boots that are too small are a common cause of blisters.

Sizing boots properly is important. Hiking should fit snug everywhere, tight nowhere and offer room to wiggle your toes. Here are some tips:

- Try on boots at the end of the day and with the socks you plan to wear. Your feet normally swell a bit during the day's activities and will be at their largest then. This helps you avoid buying boots that are too small.
- **Fit issues to look out for:** You don't want to feel odd bumps, seams, pinching in the forefoot, or toes hitting the end of the boot when it's on an incline. If the boots are laced firmly and you still feel space above the top of your foot, then the volume of the boot is wrong.
- Spend some time in the boots. Take a walk through the store, walk up and down stairs, and find an inclined surface to walk on.
- When shopping online, consider a brand you've worn before. Most companies tend to use a consistent foot model over time, so the fit is likely to be similar.
- Be sure to break your boots in before your first trip. Too many sore-footed hikers overlook this important step.

The following list of acceptable footwear is not exhaustive. It is to be used as a guide to the general type of footwear acceptable for your course. It is fine to substitute a similar boot or shoe for one of the types listed here. If you are considering a lighter boot or shoe, you will have to be committed to trimming your pack weight to below 40 lbs. which takes prior commitment to weighing each ounce of your personal gear. Expect to be carrying around 30-45 percent of your own body weight on your back. You will be carrying almost 25 pounds of group gear, so factor that in to your total pack weight.

Sturdy, Waterproof Hiking Boots:

Lowa: Cevedale Pro GTX, Tibet Pro GTX Garmont: Rambler GTX, Tower Trek GTX La Sportiva: Garnet GTX, Omega GTX

Scarpa: Kinesis GTX, Zodiac GTX, Bhutan GTX, Terra GTX

Vasque: Summit GTX, Saga GTX