

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. You will be carrying everything you bring with you on your expedition – PLUS some of the food and some of the group gear. Whether you purchase or rent, 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!

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. You can save money too by renting some of the equipment for your course from NCOAE.

- 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 canvas war-era tent to the garage and rent or purchase a lightweight 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 excursions.
- All program participants will 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.
- Remember to bring one or two sets of "in-town clothes" for days in town during the course & your return flight after the trip!
- Items listed below with an asterisk (\*) may be available from NCOAE for rent.

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



EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Internal Frame Backpack*	Optional – NCOAE provides	1	Internal frame backpack, with a volume of 65 to 85 liters is ideal (3,900-5,200 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 or messenger bag for use on trips into town or when day hiking.	
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 clothing while on the river. (Example: Sealline Dry Bag, 20-40 liters).	
Footwear	•	•		•
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Mid-Weight Hiking Boot	Must Bring	1 pair	Must be at least mid-weight. Please read the Boot Selection Guide at the end of this list.	
Camp Shoes	Must Bring	1 pair	Closed-toed shoes are a must to protect your feet and are more comfortable for wearing in camp.	
			<b>Recommend closed-toed</b> for protection from rocks, sharp objects, or in case you happen to fall out in the water. (Example:	
River Shoes / Sandals	Must Bring	1 pair	Keens). You bring "open-toe" sandals if you'd prefer. (Example: Chacos)	

You need at least **three insulating layers** (base layer, mid-weight insulation layer, & puffy jacket), a wind-proof layer, a rain layer, and a tshirt. Make sure your layers fit comfortably over each other. If you get cold easily, we suggest that you take four insulating layers.

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, Icebreaker wool)	
Fleece Jacket or Hoodie	Must Bring	1	Light to mid-weight synthetic jacket that fits over your base layers.	
Long-Sleeved Shirt	Must Bring	1	Must be synthetic.	
T-Shirt	Must Bring	3 - 4	Lightweight synthetic or wool shirts recommended.	
Insulated Jacket / Puffy	Must Bring	1	A warm, synthetic-fill "puffy" jacket that fits over your base layers & under your ski jacket. (Example: Patagonia Nano Puff Hoody)	
Rain Jacket*	Must Bring	1	Jacket should be roomy enough to fit comfortably over all upper- body layers. For rainy or stormy days in the backcountry. <b>Ponchos</b> <b>are NOT ACCEPTABLE</b> .	



#### Lower Body Clothing

You need **two to three lower-body insulating layers** that fit comfortably over each other and underneath your wind or rain pants. Example combination: Mid-weight long underwear + fleece pants.

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, Icebreaker wool).				
Rain Pants*	Must Bring	1 pair	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 pair	Nice for warm days. Pockets are nice to have.				
Miscellaneous Clothing	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	1	Lightweight fleece or wool hat that will fully cover your ears.				
Bathing Suit	Must Bring	1	Necessary for paddling parts of the adventure when possible.				
Buff, Balaclava, or Neck Gaiter	Optional	1	Used to keep your head, neck, and ears warm or protect from the wind and sun – can replace a light cap				
Bandana	Must Bring	1	For multiple uses.				
Lightweight Gloves	Must Bring	1-2 pair	Lightweight wool or synthetic gloves may be layered with heavier gloves for warmth or worn alone for sun protection.				
Underwear/Bras	Must Bring	5-10 pairs of 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*	Optional – NCOAE provides	1	Temperature rating of 20 degrees F or colder. Synthetic, not down recommended. 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*	Optional – NCOAE provides	1	Closed-cell foam or self-inflating pads. (Example: Therm-a-rest Ridgerest or Z Lite).				
Miscellaneous Gear		·					
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/ SPF, Feminine Hygiene products. Shampoo, Conditioner, & Soap, Washcloth/Loofah, & Facewash for in-town days.				



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Headlamp	Must Bring	1	Durable and lightweight.	
Extra batteries	Must Bring	1-2 sets	Bring 1-2 spare sets for headlamp	
Water bottle, 32 oz	Must Bring	2	Heavy, durable plastic. Wide-mouth and must be at least 32 oz.	
Hydration System	Optional	1	Can be used to replace one durable waterbottle. CamelBak or Platypus are popular.	
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	Must Bring	1	Durable with UV protection.	
Prescription Glasses / 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	s. 🗆
Eyeglasses Strap	Optional	1	Good brands are Chums and Croakies.	
Trekking Poles	Optional	1-2		
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.	
Optional Items				
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
			Small, waterproof & shockproof camera. Bring extra battery and	
Camera	Optional	1	memory card. You are not permitted to bring cell phones or tables into the backcountry, even for camera use.	
Camera Binoculars	Optional Optional	1		
			tables into the backcountry, even for camera use.	
Binoculars	Optional	1	tables into the backcountry, even for camera use. Small, travel sized.	
Binoculars Book	Optional Optional	1	tables into the backcountry, even for camera use. Small, travel sized. A small, lightweight book for reading.	
Binoculars Book Small Card Game / Cards Camp Pillow NCOAE Will Supply	Optional Optional Optional Optional	1 1 1 1 1	<ul> <li>tables into the backcountry, even for camera use.</li> <li>Small, travel sized.</li> <li>A small, lightweight book for reading.</li> <li>For down time.</li> <li>Should be small, made out of a synthetic material and compressible.</li> </ul>	
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Binoculars Book Small Card Game / Cards Camp Pillow NCOAE Will Supply Students share both the u Tents Stoves, Fuel Bottles & Fuel	Optional Optional Optional Optional se of and the resp	1 1 1 1 Group Tarp Maps & Refe	tables into the backcountry, even for camera use. Small, travel sized. A small, lightweight book for reading. For down time. Should be small, made out of a synthetic material and compressible. the group gear that NCOAE dispenses. Toilet Paper & Trowel erence Books/Materials Compass & Whistle	
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Binoculars Book Small Card Game / Cards Camp Pillow NCOAE Will Supply Students share both the u Tents Stoves, Fuel Bottles & Fuel Cooking Gear First Aid Kit	Optional Optional Optional Optional se of and the resp	1 1 1 1 Group Tarp Maps & Refe Course Food Repair Kit	tables into the backcountry, even for camera use. Small, travel sized. A small, lightweight book for reading. For down time. Should be small, made out of a synthetic material and compressible. the group gear that NCOAE dispenses. Toilet Paper & Trowel erence Books/Materials Compass & Whistle d & Spice Kit Group Sunscreen & Bug Spray	



#### **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 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.
- A Gore-Tex liner is recommended, but not required. Your feet will get wet if the river comes in over the top of your boot.
- A comfortable fit with your preferred hiking socks. Boots that are too small are a common cause of blisters.

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 hiking boots:

Asolo: Elbrus, Lagazuoi, Shiraz, TPS Series, Equalon Lowa: Cevedale Pro GTX, Tibet Pro GTX Garmont: Rambler GTX, Dakota, Tower Trek GTX La Sportiva: Garnet GTX, Omega GTX Scarpa: Kinesis GTX, Zodiac GTX, Bhutan GTX, Terra GTX Vasque: Summit GTX, Saga GTX, Oboz: Wind River